PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

Former Frank Ortiz Landfill

Santa Fe, Santa Fe County, New Mexico

Prepared for:

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ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
AES	Advanced Environmental Solutions
amsl	above mean sea level
ASTM	American Society for Testing and Materials International
bgs	below ground surface
btoc	below top of casing
CBS	core barrel sampler
cc	cubic centimeter
CDM	Camp, Dresser & McKee
CGI	Combustible Gas Indicator
City	City of Santa Fe
COC	chain of custody
COPC	constituent of potential concern
County	Santa Fe County
DQO	data quality objectives
EDI	EnviroDrill, LLC
EPA	U.S. Environmental Protection Agency
ER	Equipment Rinsate
ESA	Environmental Site Assessment
EWLLC	EnviroWorks, LLC
FD	field duplicate
FSP	field sampling plan
ft	feet *or* foot
GWQB	Groundwater Quality Bureau
HASP	Health and Safety Plan
HEAL	Hall Environmental Analytical Laboratory
HSA	hollow-stem auger
ID	inner diameter
IDW	investigation-derived waste
in	inch *or* inches
INTERA	INTERA Incorporated
Landfill	former Frank Ortiz Landfill
LFG	landfill gas

ACRONYMS AND ABBREVIATIONS (Continued)

mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mL	milliliter
NMED	New Mexico Environment Department
NMED GWQB	New Mexico Environment Department Ground Water Quality Bureau
NMED SWB	New Mexico Environment Department Solid Waste Bureau
NOD	Notice of Deficiency
NPT	National Pipe Thread
OD	outer diameter
OSE	New Mexico Office of the State Engineer
PAH	polynuclear aromatic hydrocarbon
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCB	polychlorinated biphenyls
PCE	tetrachloroethene
PID	photoionization detector
PM	Project Manager
ppb	parts per billion
PPE	Personal Protection Equipment
ppm	parts per million
ppmv	parts per million by volume
Project	field activities completed between June 12, 2017, and July 14, 2017 described in this Report
PRRL	project-required reporting limits
PVC	polyvinyl chloride
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
RL	reporting limit
RPD	relative percent difference
S1AP	Stage 1 Abatement Plan
SAP	sampling and analysis plan
SB	soil boring
SFG	Santa Fe Group
SIM	selective ion monitoring
Site	former Frank Ortiz Landfill
SOP	standard operating procedure
SSHASP	Site-Specific Health and Safety Plan

ACRONYMS AND ABBREVIATIONS (Concluded)

SSL	soil-screening level
SSS	split spoon sampler
SVOC	semi-volatile organic compound
SWB	Solid Waste Bureau
TCE	Trichloroethene
TD	total depth
TPH	total petroleum hydrocarbons
TWD	total well depth
USCS	Unified Soil Classification System
VISL	Vapor Intrusion Screening Level
VOC	volatile organic compound

1.0 INTRODUCTION

This report (Report) presents the results of a Phase II Environmental Site Assessment (ESA) performed at the former Frank Ortiz Landfill (Site), located in Santa Fe, Santa Fe County (County), New Mexico. The Phase II ESA was performed by INTERA Incorporated (INTERA) for the City of Santa Fe (City). Between June 12, 2017, and July 14, 2017, the following field activities were completed for this project (Project): 1) investigative excavation of 24 test pits located within the footprint of the Site, 2) hollow-stem auger (HSA) drilling and sampling of 27 exploratory soil borings, 3) installation of three (3) temporary nested soil vapor monitoring wells, and 4) a single soil vapor sampling event. The Site location is shown on **Figure 1** and the Site plan is shown on **Figure 2**.

All Phase II ESA field activities were conducted in general accordance with INTERA's approved site-specific Sampling and Analysis Plan (SAP) dated April 27, 2017 (INTERA, 2017). The SAP consisted of a field sampling plan (FSP) and a quality assurance project plan (QAPP) in an integrated format. The integrated SAP was prepared per the guidance provided by the City and the New Mexico Environment Department (NMED) prior to initiation of any field activities. Both the City and NMED provided comments to the draft SAP that were addressed prior to the final SAP being submitted to both parties.

1.1 Report Organization

This Phase II ESA Report provides, in the current section, a summary of the Project background, information about the Site location and land use in the area, an overview of the Site hydrogeology, and a summary of previous assessments. Sections 2 and 3 discuss the field/data collection methods implemented during the investigation and the analytical results, respectively. Section 4 addresses quality assurance/quality control (QA/QC), and Section 5 provides an update of the conceptual site plan. Section 6 discusses conclusions and recommendations. An addendum to the Site Sampling and Analysis Plan (SAP) is provided in Section 7. References are provided in Section 8, and a Warranty Statement and Certification are included in Section 9.

Appendices to this Phase II ESA Report include **Appendix A:** Site Photographs; **Appendix B:** Soil Boring Logs and Test Pit Excavation Logs; **Appendix C:** Field Forms and Notes; **Appendix D:** Soil Boring, Test Pit, and Soil Vapor Monitoring Well Survey; **Appendix E:** Laboratory Analytical Reports – Soil Sampling Results; **Appendix F:** Laboratory Analytical Reports - Soil Vapor Sampling Results; and, **Appendix G:** Geotechnical Laboratory Reports – Soil Cover Testing Results.

1.2 Purpose

The waste and vadose zone investigation detailed herein has been developed specifically to address deficiencies identified by the NMED Groundwater Quality Bureau (GWQB) in previous Stage 1 Abatement Plans (S1APs), dated 2003 and 2010 (URS, 2003; Golder, 2010). Previous S1APs identified volatile organic compounds (VOCs), hydrocarbons, metals, and nitrogen species in soils, groundwater, and vapor phase media (Golder, 2010). NMED GWQB reviewed the 2010 S1AP and identified the following six deficiencies in their Notice of Deficiencies Letter (NOD Letter), dated November 13, 2013 (NMED, 2013):

1. *The report did not provide a plan for maintenance of a two-foot cap over the former landfill. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to maintain a two-foot cap over the former landfill.*
2. *The report did not adequately define the nature and extent of the landfill waste. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to delineate the boundaries, thickness and composition, if applicable, of the waste material. Delineation of the waste material may be accomplished through geophysical mapping, trenching, borings, subsurface sampling, and waste sampling.*
3. *The report did not adequately define contaminant concentrations in the vadose zone below the waste. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to conduct a vadose zone investigation beneath the waste. The proposal must include plans to collect soil and soil vapor samples at depth. Soil samples shall be analyzed for volatile organic compounds (VOC), polyaromatic hydrocarbons (PAH), metals, polychlorinated biphenyls (PCB), and nitrogen species. Soil vapor samples shall be analyzed for VOCs.*
4. *The report did not adequately define potential contaminant impacts to ground water. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to assess ground water quality. The proposal must include plans to collect ground water samples at locations adjacent to the site. Samples must be analyzed for VOCs, P AHs, metals, PCBs, and nitrogen species.*
5. *The report did not provide a long-term monitoring program. To cure this deficiency a modified Stage 1 Abatement Plan shall include a long-term monitoring program for collection and analysis of soil vapor and ground water samples. Ground water samples shall be collected for VOCs, P AHs, metals, PCBs, and nitrogen species. Soil vapor samples shall be collected for VOCs.*
6. *The report did not include a Quality Assurance Project Plan, a Health and Safety Plan, or a schedule for implementation. To cure this deficiency a modified Stage 1 Abatement Plan shall include these items.*

This Phase II ESA Report describes the investigation methods utilized to address deficiencies 1, 2, 3, 4, and 6. Other deficiencies (i.e., number 5) will be addressed in the modified S1AP.

1.3 Site Location and Land Use

The Site was never formerly designated or operated by the City of Santa Fe as a landfill but was used routinely by its citizens as a municipal dumpsite for the disposal of waste. Aerial photography of the area indicates that the Site was used for this purpose between 1954 and 1968. The Site was re-developed with irrigated soccer fields from 1987 to 1993 (Golder, 2010). The increased irrigation in the area could potentially have enhanced leachate and landfill gas generation. The landfill was unregulated, as there were no solid waste management regulations promulgated during that period. No records of received volumes, weights, or waste types were made. The Frank Ortiz Landfill was not closed in accordance with state solid waste requirements. No final grading, liner, cap, or other measures were designed to limit percolation of water into the buried wastes.

Northwest of the Site is the former Paseo de Vista Landfill. The 110-acre Paseo de Vista Landfill was regulated by the NMED Solid Waste Bureau (SWB) and received waste from 1969 until approximately the late 1990s (CDM, 1995). Pursuant to landfill closure groundwater monitoring requirements, nine groundwater monitor wells have been completed around the Paseo de Vista landfill.

The Site is currently in a primarily residential setting, and the adjoining areas are undeveloped (western and southern boundaries) and residential (eastern and northern boundaries). One drainage, the Arroyo Torreon, acts as the western boundary for the Site (**Figure 1**). The Site land use is recreational as a public dog park. The park area is covered by some small trees and sparse native vegetation. Trails, dirt roads, and erosion drainages cover the area. One monitoring well, Ortiz Park-1, is located along the southern boundary of the Site. Several domestic supply wells are within the Site vicinity (**Figure 2**). Local groundwater flow direction is believed to be primarily toward the south, southeast (Golder, 2010).

1.4 Summary of Previous Site Assessments

In April 1993, soil vapor sampling was conducted by Camp, Dresser & McKee (CDM) at 50 direct push locations. Sample depths ranged from 7 feet (ft) to 20 ft below grade. Most of the samples (45) were analyzed for landfill gases (LFG) using an on-site mobile laboratory. Five (5) of the samples were also analyzed for VOCs at 3 ft below ground surface (bgs). Samples of vapors contained in the fill and soil cover were found to contain a number of hydrocarbons, chlorinated solvents, and chlorinated solvent degradation products. Concentrations of some of the contaminants exceed 1,000 parts per billion (ppb). The estimated limit of elevated methane levels as determined by this investigation is illustrated in CDM (1995). The previous soil vapor

contaminant concentration data are limited to areas from the middle of the landfill and from a maximum depth of 30 ft bgs (URS, 2003; Golder, 2010).

A single groundwater monitoring well (Ortiz Park No. 1, **Figure 2**) was installed approximately 500 ft southwest of municipal solid waste fill in Ortiz Park in April 2004, and was monitored for two years, in accordance with a schedule set forth in the April 30, 2003 S1AP developed by Golder. The results of the groundwater monitoring at Ortiz Park No. 1 and groundwater elevation and quality data collected from other nearby monitoring wells is included in Golder (2010).

In 2015, Sunbelt Geophysics conducted an investigation to define the areal extent of buried waste at the former Landfill. The results of their report, *Aerial Image Analysis and Geophysical Investigation, Ortiz Park Landfill*, provides useful information which helps to target the necessary invasive testing required to adequately characterize the nature and extent of buried waste. The areal extent of the waste and other waste characteristics as determined by the geophysical investigation are illustrated in their report.

1.5 Physical Setting, Site Geology and Hydrology

1.5.1 Physical Setting

The Site vicinity is within the western part of the Santa Fe topographic quadrangle. The 35-acre Site is bound to the north-northeast by Paseo de las Vistas, the west by the Arroyo Torreon, and to the east by La Loma Vista. It is located along a side slope, feeding into the Arroyo Torreon. The Site land use is recreational as a public dog park. Some small trees and sparse native vegetation cover the Park area. Trails, dirt roads, and erosion drainages cover the area. The elevation of the Site ranges from approximately 6,960 ft above mean sea level (amsl) to 7,030 ft amsl.

1.5.2 Site Area Geology

The Site is in the north-central section of the 7.5-minute Santa Fe Quadrangle in the southern extent of the Santa Fe Uplands, north of the Santa Fe River (Read et al., 2003; Koning et al., 2001). Santa Fe and its immediate surrounding area structurally lies within the southern portion of the Española Basin, a major structural depression of the Rio Grande rift tectonic province, whose southern extent terminates in the Santa Fe embayment and the northern Galisteo structural basin, located south of the Site (Johnson and Koning, 2012). Much of the area is characterized by the piedmont slopes flanking the western and southern extension of Sangre de Cristo-Santa Fe Range foothills.

The piedmont slopes of the Santa Fe Area are comprised of late Cenozoic (Upper Oligocene to Lower Pleistocene) basin-fill deposits of the Santa Fe Group (SFG). In the Española Basin, the type SFG is subdivided into two formation-rank lithostratigraphic units: the Tesuque (older) and

the Ancha (younger) formations (Baldwin, 1963). The Tesuque Formation (upper Oligocene to upper Miocene) makes up the bulk of the SFG and is pervasively deformed (folded and locally faulted) by Basin and Range - Rio Grande rift tectonism (primarily late Miocene to early Pliocene) (Smith, 2004; Koning et al., 2013). The younger (Pliocene to lower Pleistocene) Ancha Formation constitutes the uppermost basin-fill unit of the SFG in the Santa Fe area, and predominately occurs throughout the Santa Fe Embayment (south of the Santa Fe River and the Site) but also is observed to extend ~30 kilometers (km) westward to the La Bajada escarpment and White Rock Canyon, where it underlies the Cerros del Rio basalts (Koning and Read, 2010). A thin outcrop of Ancha Formation has also been observed to extend ~26 km northwest to Buckman, separating the underlying Tesuque Formation of the Santa Fe Uplands (east) from outcrops of the Cerros Del Rio volcanic field (west) (Johnson and Koning, 2012).

Proximal to the base of the Sangre de Cristo front (northeast section of the Santa Fe Quadrangle), the Tesuque Formation has long been recognized as being composed of two members:

- The Nambé Member: detritus eroded from pre-Tertiary rocks, generally arkosic in composition, and typically pink in color; and,
- The Bishop's Lodge Member: a distinctly volcaniclastic deposit, composed of white toffees mudstone and gray, conglomeratic volcanic-lithic sandstones. However, west of Canada Rincon (and in the area of the Site), the Tesuque Formation is primarily undifferentiated with respect to these members (Read et al., 2003; Johnson and Koning, 2012).

The Ancha Formation consists of granite-dominated gravel, arkosic sand, and silt-clay derived from the southwestern flank of the Sangre de Cristo Mountains. It is mostly non-cemented and weakly consolidated; and over most of its extent it unconformably overlies the Tesuque Formation, a gentle south-westward dip of ~5 degrees typically form a distinct angular unconformity with the more steeply dipping (9 to 12 degrees westward) Tesuque Formation (Johnson and Koning, 2012).

In the area of the Site, deposits of the Tesuque Formation are ubiquitous, creating the small poorly-cemented hills of the area. Outcrops of the formation can be visually observed in the various local arroyos, Arroyo Torreon being the most prominent and forming the western boundary of the Site. A major distinguishing lithologic property of the Tesuque Formation is the presence of highly weathered clasts of coarse-crystalline igneous and metamorphic rocks, which are easily broken by hand (Read et al., 2003).

In the arroyos at the Site, recent valley-fill deposits are observed to overlie the Tesuque Formation. Uppermost Pleistocene to Holocene in age, these valley fill deposits are derived largely from local fluvial processes, but hillslope processes and sheet wash also appear to have contributed sediment.

Deposits of Ancha Formation are not anticipated, as the easternmost extent of the possible Ancha north of the river has been mapped more than two miles south-west of the Site (Read et al., 2003; Johnson and Koning, 2012).

1.5.3 Site Area Hydrology

The dominant surface water flow near the Site is storm water. Storm water flow predominately occurs during the monsoon season with flow towards the local arroyos and into Arroyo Torreon, which terminate into the Santa Fe River southwest of the Site.

The Tesuque Formation is the principal aquifer for the City and surrounding northern New Mexico communities. Most groundwater from this formation is produced from depths greater than 200 ft (INTERA, 2006; Lazarus and Drakos, 1995). The Tesuque aquifer is a semi-confined aquifer system containing layers of higher transmissive beds consisting of coarser sands and gravels bounded by lower transmissive beds of finer silts and clays. The overlying Ancha Formation is usually unsaturated, except where Ancha sediments directly overly a bed of low transmissivity (i.e. within the Tesuque), which forces groundwater to flow up and into the Ancha to flow past the barrier (e.g. Cieneguita and Agua Fria springs) (Wilson and Jenkins, 1979). Hydraulic conductivity of the upper 800 ft of the Tesuque Formation aquifer system in the Española basin ranges from 0.2 to 6.0 ft/day and is estimated at ~0.7 ft/day in the City area (Lazarus and Drakos, 1995).

Regional groundwater flow in the southern Española Basin is from the high-recharge areas of the Sangre de Cristo Mountains in the east to the low-elevation discharge area along the Rio Grande to the west. However, groundwater flow near the Site is heavily influenced by pumping of water supply wells to the south. Tesuque Formation groundwater beneath the Site flows to the east-southeast toward the Torreon, Ferguson, and Alto supply wells; according to head contours from the 2000 to 2005 period (Johnson, 2009, Figure Y) and corroborated by more recent data. Heads ranged between 6,650 ft and 6,600 ft amsl during the 2000 to 2005 period (Johnson, 2009) and between 6,660 and 6,605 ft amsl in 2009, yielding a steep head gradient of about 55 ft/5,500 ft = 0.010 ft/ft between the most upgradient edge of the nearby Paseo de Vista Landfill to the Ferguson well (Golder, 2010). A more recent groundwater monitoring report (October 2017) prepared for the nearby Paseo de Vista Landfill documented a regional gradient of 0.013 ft/ft and a general groundwater flow direction of due east (SMA, 2017).

Soil boring logs detailing the lithology encountered at the Site during the Phase II ESA are included as **Appendix B.** Phase II ESA drilling activities are discussed in more detail in Section 2.4.

1.6 Contaminants of Potential Concern

The following constituents are identified as Site constituents of potential concern (COPCs) for both soil and groundwater for the Phase II ESA:

- VOCs
- Semi-volatile organic compounds (SVOCs), particularly polynuclear aromatic hydrocarbons (PAHs)
- NMED-designated metals (i.e., arsenic, barium, cadmium, chromium, lead, selenium, silver, uranium, copper, iron, manganese, zinc, aluminum, boron, cobalt, molybdenum, and nickel)
- Polychlorinated biphenyls (PCBs)
- Nitrate/nitrite and ammonia and total Kjeldhal nitrogen.

The third and fourth deficiency addressed by the SAP relate to characterization of the vadose zone below the waste. Specifically, these deficiencies include:

3. *The report did not adequately define contaminant concentrations in the vadose zone below the waste. Soil samples shall be analyzed for volatile organic compounds (VOC), polyaromatic hydrocarbons (PAH), metals, polychlorinated biphenyls (PCB), and nitrogen species. Soil vapor samples shall be analyzed for VOCs.*
4. *The report did not adequately define potential contaminant impacts to ground water. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to assess ground water quality. The proposal must include plans to collect ground water samples at locations adjacent to the site. Samples must be analyzed for VOCs, PAHs, metals, PCBs, and nitrogen species.*

To address deficiency 4 listed above, the contamination data obtained from soil and soil vapor analyses was used to evaluate the potential for vadose zone contamination to migrate to groundwater. This evaluation along with previously collected Site groundwater data will ultimately guide decision-making concerning the number and locations of additional groundwater monitoring wells.

As little-to-no current sampling data were available regarding waste types, Phase II ESA Site COPCs were determined by reviewing documented property uses of the Site and adjacent properties. Northwest of the Site is the former Paseo de Vista Landfill (**Figure 2**). The 110-acre Paseo de Vista Landfill was regulated by the NMED SWB and received waste from 1969 until approximately the late 1990s (CDM, 1995). Pursuant to landfill closure groundwater monitoring requirements, nine (9) groundwater monitor wells have been completed around the Paseo de Vista landfill.

2.0 SUMMARY OF SITE INVESTIGATION ACTIVITIES

As part of the Phase II ESA, the following field activities were completed at the Site between June 12, 2017, and July 14, 2017: 1) investigative excavation of 24 test pits located within the footprint of the Site, 2) HSA drilling and sampling of 27 exploratory soil borings, 3) installation of three (3) temporary nested soil vapor monitoring wells, and 4) a single soil vapor sampling event. The Site location is shown on **Figure 1** and the Site plan is shown on **Figure 2**.

All Phase II ESA activities were conducted in general accordance with the approved Site-specific SAP dated April 27, 2017 (INTERA, 2017). Prior to initiating any field work, the Site-Specific Health and Safety Plan was reviewed by INTERA and their subcontractors. Before work commenced each day, a health and safety meeting was conducted. All work was performed in Occupational Safety and Health Administration Level D personal protective equipment.

Details of all completed Phase II ESA field activities are provided in the Sections 2.3 through 2.7 of this Report. Any deviation from activities as outlined in the approved SAP that occurred during the implementation of the Phase II ESA are presented in Section 2.8. A copy of the Phase II ESA investigation field notes and completed field forms are included in **Appendix C**.

2.1 Selection of Phase II ESA Sample Types and Locations

As outlined in the approved SAP, sampling locations and types of media sampled as part of the Phase II ESA were pre-determined based on information gathered regarding current and former uses of the Site and its adjoining properties and their locations with respect to the Site.

The sampling is designed to address deficiencies identified by the NMED GWQB in previous SAPs, dated 2003 and 2010 (URS, 2003; Golder, 2010). The specific sampling planned to address each deficiency is detailed below.

One of the deficiencies listed in the NOD Letter relate to the landfill cap and characterization of the Landfill waste.

1. *The report did not provide a plan for maintenance of a two-foot cap over the former landfill. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to maintain a two-foot cap over the former landfill.*

To aid in addressing this deficiency, one (1) composite sample of cover soils was collected for laboratory analysis of basic engineering index properties including:

- Grain size (ASTM D6913-04[2009]);
- Gravimetric moisture content (ASTM D2216-10);

- Atterberg limits (ASTM D4318-10); and,
- Unified Soil Classification System (USCS) classification.

At one or more of the locations, representative samples of the cover soils were collected for laboratory analysis of laboratory compaction (modified Proctor, ASTM D1557-09).

Both soil and soil vapor samples were collected and analyzed for the presence of COPCs as part of the Phase II ESA. From eight (8) soil borings, two (2) soil samples were submitted to the laboratory for analysis including one (1) sample collected just below the waste interface and one (1) collected at the bottom of the soil boring. A total of 18 soil samples were submitted to the laboratory for analysis (16 primary samples and two [2] field duplicates [FDs]) located within the general impact area of the Site (**Figure 2**). Soil samples were collected at these soil borings to help evaluate 1) the nature and extent of impact former landfill operations may have had on Site subsurface soils and 2) the overall risk, if any, Site COPCs pose to human health under future land-use scenarios (i.e., construction, industrial (occupational) worker, recreational user). Per the SAP, exploratory boring locations were selected based on professional judgment regarding Site knowledge. For each boring, the soil sampling interval was selected based on addressing the deficiency addressed by the SAP related to characterization of the vadose zone below the waste.

A total of three (3) temporary nested soil vapor monitoring wells (SV-01 through SV-03) with a shallow, intermediate, and deep screened zone were installed at the Site, and a total of 10 soil vapor samples were collected during a single soil vapor sampling event to address the deficiency addressed by the SAP relate to characterization of the vadose zone below the waste. Specifically, this deficiency is:

3. *The report did not adequately define contaminant concentrations in the vadose zone below the waste. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to conduct a vadose zone investigation beneath the waste. The proposal must include plans to collect soil and soil vapor samples at depth. Soil samples shall be analyzed for volatile organic compounds (VOC), polyaromatic hydrocarbons (P AH), metals, polychlorinated biphenyls (PCB), and nitrogen species. Soil vapor samples shall be analyzed for VOCs.*

In addition to sampling soil and soil vapor, a total of 24 test pits were excavated from areas within the currently-established Site boundary and its immediate vicinity as part of the Phase II ESA (**Figure 2**). Test pit excavations were completed to 1) further characterize the nature of former landfill waste and confirm former landfill boundaries, and 2) determine average thickness and variability of the former landfill cover. Per the SAP, test pit locations were chosen based on current Site knowledge regarding the primary extent of former Frank Ortiz Landfill operations.

2.2 Pre-mobilization Activities

Pre-mobilization activities included INTERA internal personnel and equipment preparation and scheduling, preparing subcontractor technical services agreements, and contacting New Mexico One-Call for underground Site utility location services.

2.3 Test Pit Excavation

INTERA subcontracted with EnviroWorks, LLC (EWLLC) of Edgewood, New Mexico, to excavate a total of 24 test pits within the confines of the Site. Test pit excavations were performed by EWLLC using a Caterpillar 420 backhoe on June 12 through 15, 2017 under the direction of Larry M. Coons, P.E., of INTERA. The locations of the completed test pits are shown on **Figure 2**. Photographs depicting the test pit excavation efforts are provided in **Appendix A**. Completed test pit logs are provided in **Appendix B**.

Prior to excavating, each location was secured by establishing a work zone to preclude entry by park patrons and their pets. The work zones consisted of setting up temporary construction fencing around the excavations. The total depth of the test pits varied and were excavated until native soils were encountered or the limits of the backhoe were reached. Total depth of the test pit excavations ranged from 3 ft bgs in OTP-02, 04, 05, 12 13, and 14 to 12 ft bgs in OTP-23. The widths and lengths of the test pits varied slightly, depending upon the cohesion of the materials encountered at depth, and the ability of the excavation to remain stable without caving. Methane, oxygen, and hydrogen sulfide concentrations were measured and recorded while the test pits were excavated using a portable instrument manufactured by QRAE®. Prior to excavating, the instrument was calibrated to a standard 50 % methane gas, 25 parts per million (ppm) hydrogen sulfide gas, and oxygen was calibrated to ambient air (20.9 percent oxygen) in accordance with the manufacturer's recommendations. During excavation of the test pits, oxygen concentrations were measured at approximately 20.9%. Minor amounts of hydrogen sulfide, carbon monoxide and VOCs were detected during excavation of the test pits. As per the SAP, soil samples were not collected during the excavation of the test pits. Any waste removed from the test pit excavations on the Site was temporarily stockpiled, loaded into a haul truck, transported to, and disposed of, at the Caja del Rio Landfill.

Immediately upon completion, each test pit was backfilled with clean soil and compacted using the backhoe. No test pits were left "open" overnight.

2.4 Drilling Activities

INTERA subcontracted with EnviroDrill, Inc. (EDI), of Albuquerque, New Mexico, to advance 27 soil borings, sample soil, and install three (3) temporary nested soil vapor wells (at three [3]

soil boring locations) as proposed in the Phase II ESA SAP which outlined HSA drilling techniques. All borings advanced using a truck mounted Central Mining Equipment 85 drilling rig equipped with a $7^{5/8}$-inch hollow-stem auger for boring advancement and a 2-ft long split spoon sampler (SSS) for periodic soil collection.

Per the drilling plan outlined in the SAP, 19 soil borings were advanced through the waste until native materials were encountered (waste characterization) or reached auger or split spoon refusal, five (5) soil borings were advanced for vadose zone characterization, and three (3) soil borings were installed with temporary nested soil vapor monitoring wells. The total depth varied from 11 ft bgs in soil borings SB-8 and SB-9 to 29 ft bgs in soil borings SB-11 and SB-12 for the waste characterization soil borings. Total depths in the vadose zone characterization borings ranged from 12 ft bgs in soil boring SB-22 to 30 ft bgs in soil boring SB-17. The three soil borings installed with the temporary nested soil vapor wells SB-25, SB-26 and SB-27 were installed to depths of 47, 41, and 43 ft bgs, respectively. All final Phase II ESA soil boring locations are presented on **Figure 2.**

During soil boring advancement, soil was periodically recovered in 2.0-ft intervals with the SSS, at depths associated with the waste/native soils boundary in the soil borings. Upon soil recovery, two (2) representative samples (field-screening and potential laboratory analysis) were collected. Once the potential laboratory and field screening samples had been collected, an INTERA geologist/engineer classified and described each distinct lithologic unit in accordance with ASTM International's (ASTM's) *Standard Practice for Description and Identification of Soils (Visual Manual Procedure), ASTM Standard D 2488-09a* (ASTM, 2009). Soil classifications and descriptions are provided on the soil boring logs included in Appendix B. The methods used to collect and field-screen samples/core are outlined in INTERA's standard operating procedure (SOP).

Soil cuttings generated during drilling were backfilled in all soil borings, except for soil borings SB-25, SB-26 and SB-27, which were installed with temporary, nested soil vapor monitoring wells. The soil cuttings were placed in 55-gallon drums and stored as investigation-derived waste (IDW) in an approved temporary storage area identified by the City. Waste exhumed during drilling was hauled and disposed of at the Caja del Rio landfill by Advanced Environmental Solutions (AES), a SWB-licensed waste hauler.

2.4.1 Collection of Subsurface Soil Samples

During the advancement of each soil boring, soil was recovered periodically from 5 ft bgs to total depth (TD) using a 2-ft long by 2-inch inner diameter (ID) SSS, which was advanced inside the lead auger during drilling. The SSS was mechanically extracted at the end of each 2-ft drilling interval and placed horizontally on the drilling rig's sample breakout table. A wrench was used to

remove the cutting shoe and the split spoon was then folded open to expose the soil core. Immediately after opening the core barrel sampler (CBS), a representative portion of each distinct lithologic unit was placed in appropriate laboratory-provided glassware and stored on ice for potential laboratory analysis. The soil sample was labeled with the project name, sample location, sample identification number, date and time of collection, preservation used (if applicable), sample collector's initials, and analysis required. Another representative portion of the soil core was placed in a clean, pint-size glass jar for field screening via heated headspace analysis.

For the Phase II ESA, two (2) soil samples were collected from eight (8) soil borings (SB-17, 19, 21, 22, 24, 25, 26, and 27) and were submitted to the laboratory for analysis. This included one (1) sample collected just below the waste interface and one (1) collected at the bottom of the soil boring. A total of 18 soil samples were submitted to the laboratory for analysis (16 primary samples and two FDs).

All samples were immediately placed on ice until delivered, under appropriate chain-of-custody (COC), to Hall Environmental Analysis Laboratory, Inc. (HEAL), of Albuquerque, New Mexico, an EPA-certified laboratory, for the following analyses:

- VOCs via EPA Method 8260B (via methanol extraction in accordance with INTERA SOP 13);
- SVOCs, which include PAHs via EPA Method 8270 (selective ion monitoring [SIM]);
- NMED-designated metals (i.e., arsenic, barium, cadmium, chromium, lead, selenium, silver, uranium, copper, iron, manganese, zinc, aluminum, boron, cobalt, molybdenum, and nickel) by either EPA Method 6010C or 6020 (and mercury by 7470/7471/245.2);
- PCBs by EPA Method 8082 (SIM); and,
- Nitrate/nitrite by EPA Method 300.0 and ammonia and total Kjeldhal nitrogen by SM 4500.

In addition, one equipment rinsate (ER) sample and one FD were collected for QA/QC purposes and analyzed for the same constituents as the primary soil samples.

Soil samples were screened in the field using a photoionization detector (PID) (please see **Table 1** and Section 2.4.2 below). Soil sample analytical results are summarized in **Table 2** and discussed in Section 3.3. The complete analytical laboratory report is provided in **Appendix E.**

Sample integrity was maintained by donning a new pair of nitrile gloves prior to handling each soil sample. The split spoon samplers were decontaminated after each sample by cleaning with Alconox® and water followed by two distilled water rinses in accordance with INTERA's Equipment Decontamination SOP.

2.4.2 Field Screening Methods

Field-screening was performed by making visual and olfactory observations related to the presence of contamination and by using a modified heated headspace technique designed to screen soil samples for the presence of volatile-type compounds. The heated headspace technique used a PID to measure the concentration of total volatile compounds that concentrate in the ambient air headspace above a soil sample. A PID equipped with an 11.7 electron volt lamp and an in-line moisture trap (to prevent water vapor from influencing the PID reading) was selected for this investigation to ensure adequate ionization of all VOCs identified as COPCs. The operational range of the PID is 0 to 10,000 parts per million by volume (ppmv), with a minimum instrument detection of 0.1 ppmv.

The heated headspace technique as specified by the NMED Petroleum Storage Tank Bureau (NMED, 2000) was modified slightly for field use. The modified method consisted of partially filling a clean, pint-size glass jar with a portion of the soil sample, covering the opening of the jar with aluminum foil, and sealing the opening of the jar with a ring lid. The jar was then placed on the floor of the INTERA field vehicle, and the vehicle's internal heater was used to heat the sample. After it had been heated for a minimum of five minutes, the sample jar was shaken lightly and the concentration of volatilized compounds within the headspace was measured by piercing the aluminum foil seal with the tip of the PID probe. This technique varied from the NMED procedure because NMED specifies that the temperature of the sample be raised using a warm water bath prior to analyzing the headspace (NMED, 2000). Total concentration values were immediately recorded on the soil boring logs, which are provided in **Appendix B.**

PID results ranged from 0.0 ppm in soil borings SB-8, SB-9, and SB-16 to 67.7 ppm in soil boring SB-11 at 26 to 27 ft bgs. The PID results for all the soil borings are listed on the soil boring logs included in Appendix B. There were odors associated with decomposing waste, and a black tar-like substance was observed in soil boring SB-23 in the SSS at 7 to 9 ft bgs. PID headspace readings are summarized in **Table 1.**

2.5 Soil Vapor Monitoring Well Installation

Soil borings SB-25 through SB-27 were completed as nested soil vapor monitoring wells SV-01 through SV-03 to help determine if potential COPC releases from on-site sources could impact groundwater. The locations of these soil vapor monitoring wells were determined by information gathered during the test pit excavations and soil borings.

All nested soil vapor monitoring wells were constructed using 1-inch-diameter, flush-threaded, schedule 40 polyvinyl chloride (PVC) casing and were completed with 5 ft of 0.020-inch slot-size screen. Three (3) nested wells were installed in each borehole, and the screen was set at a shallow,

intermediate and deep zone with an end cap and blank casing to the surface. See the soil vapor well completion diagrams in Appendix B for screen depths. Blank casing was then used to complete each monitoring well to a height of approximately 3 ft above ground surface in soil vapor monitoring wells SV-01 and SV-02. Soil vapor monitoring well SV-03 was completed in the parking lot and has a flush traffic-rated well vault.

At a minimum, the annular space of each monitoring well was backfilled with 10/20 silica sand (filter pack) to approximately 2 ft above the top of each well screen. Approximately 2 ft of hydrated bentonite clay granules or 3/8-inch chips were placed above the sand pack to form an annular seal in the deep and intermediate screened soil vapor wells. The bentonite seal extended to approximately 4 ft bgs in the borehole from the top of the sand for the shallow soil vapor well. The remainder of the monitoring well annulus and surface pads were backfilled with surface material and completed with cement. Surface completion for all wells consists of an above-ground, sloped, circular concrete pad and a protective metal standpipe with locking cover for soil vapor monitoring wells SV-01 and SV-02. Soil vapor monitoring well SV-03 was completed in the parking lot and has a flush traffic-rated well vault. Each of the three (3) soil vapor monitoring wells were fitted with a ¼-inch barbed nipple with valve attachment for soil vapor sampling.

Soil vapor monitoring well construction information, including elevation data, screen interval, and total well depth (TWD) are provided on the completed soil boring logs and well construction diagrams presented in **Appendix B.**

2.6 Soil Vapor Sampling and Analysis Methods

On July 13 and 14, 2017, INTERA purged each soil vapor monitoring well and collected soil vapor samples. A total of 10 soil vapor samples, nine (9) primary investigation and one (1) FD (collected at SV-01-I), were collected from soil vapor monitoring wells SV-01 through SV-03.

Each well was purged using low-flow sampling techniques as outlined in the SAP, implementing an escort elf low-flow pump. Soil vapor quality parameters were observed during purging and samples were collected when the parameters had stabilized (hydrogen sulfide, carbon monoxide, lower explosive limit, oxygen, and PID levels) after purging three well volumes as shown on the field forms in Appendix C. The samples were collected using dedicated plastic tubing, and containerized in summa canisters until submitted, under proper COC, to HEAL.

All soil vapor samples were submitted for the analysis of:

- VOCs by EPA Method TO-15

The FD sample was analyzed for the same constituents as the primary investigation samples. All required completed COC form(s) accompanied the samples upon submission to HEAL.

2.7 Investigation Derived Waste

INTERA subcontracted AES a SWB-licensed waste hauler of Belen, New Mexico, to dispose of the three drums of IDW at the Site. On July 13, AES picked up, hauled, and disposed of the three drums at the Caja del Rio landfill.

2.8 Sampling and Analysis Plan Deviations

The following deviations from the SAP occurred during performance of Phase II ESA field activities:

Test Pit Excavations – The SAP specified that 26 test pits would be dug to the approximate dimensions of 3 ft by 6 ft by 18 ft (X, Y, Z). Since some of the test pit excavations were located outside the boundaries of the Site, two (2) of the test pits were not excavated. A total of 24 test pit excavations were completed with varying dimensions.

Soil Boring Drilling – The SAP specified that 23 soil borings would be completed on the Site. Based on underground obstructions and auger refusal, four (4) additional soil borings were drilled on the Landfill. The data from these boreholes was incorporated to determine waste characterization and intervals.

Soil Sample Laboratory Analysis – One of the soil samples collected from the soil borings (SB-27 – 35-37) required sample extraction after the holding time had expired. This sample was not logged on the COC when the sample was submitted to the analytical laboratory. Although the extraction holding times were exceeded, because the samples were kept at +/- 2°C temperature, and because the sample matrix is soil, it is unlikely that the sample results are different than if they were analyzed within the required holding time.

Soil Vapor Monitoring Well Installation – The SAP specified that each monitoring well would be constructed with 20 vertical feet between the total depths of the three (3) nested soil vapor monitoring wells. In fact, this distance between the bottom of the total depths of the three nested soil vapor wells was 10 ft. Soil vapor monitoring well SV-01 was completed to 26, 36, and 46 ft, respectively, for the shallow, intermediate, and deep wells. Soil vapor monitoring well SV-02 was completed to 20, 30 and 40 ft, respectively, for the shallow, intermediate, and deep wells. Soil vapor monitoring well SV-03 was completed to 22, 32, and 42 ft, respectively, for the shallow, intermediate, and deep wells.

Soil Vapor Sampling – The SAP specified that soil vapor samples would be collected from each soil vapor port using laboratory-provided, dedicated sorbent tubes. The soil vapor samples were instead collected in summa canisters. This method was considered more reliable and efficient than the sorbent tube sampling methodology. A total of 10 soil vapor samples, nine (9) primary investigation and one (1) FD (collected at SV-01-I), were collected from soil vapor monitoring wells SV-01 through SV-03.

Each well was purged using low-flow sampling techniques, implementing an escort elf low-flow pump. Soil vapor quality parameters were observed during purging and samples were collected when the parameters had stabilized (hydrogen sulfide, carbon monoxide, lower explosive limit, oxygen, and PID levels) after purging three well volumes. The samples were collected using dedicated plastic tubing and containerized in summa canisters until submitted, under proper COC, to HEAL.

All soil vapor samples were submitted for the analysis of:

- VOCs by EPA Method TO-15 Hi/Lo;

The FD sample was analyzed for the same constituents as the primary investigation samples. All required completed COC form(s) accompanied the samples upon submission to HEAL.

3.0 INVESTIGATION RESULTS

3.1 Site Stratigraphy

Within the former Landfill area studied for this investigation, the Site stratigraphy consisted (from surface to depth) of cover fill; waste fill; and native subgrade. The stratigraphy was identified from information obtained from the test pits and soil borings as described in Sections 2.3, 2.4, and 3.2.

The terms “fill,” “debris,” “flagging,” and “waste” are used in this Report to describe materials associated with the former Landfill. Fill refers to non-native, disturbed material that consist of both soil and waste used to fill airspace within the operating landfill. Fill may be further identified as “soil fill” or “waste fill.” In general, debris refers to a very minor quantity of waste within soil fill that is present in small pieces (drywall chips, pieces of plastic, wood splinters, broken glass, etc.). Recognition of debris in fill is useful in identifying the material as being associated with the landfill. Flagging is a term used at active landfills to identify windblown, or otherwise dispersed waste, that mixes with soil fill during operations. Flagging typically consists of waste items that are easily carried by the wind such as plastic bags and papers. Like debris, flagging is typically found in minor quantities within soil fill, and it is also helpful in identifying the fill as being associated with a landfill. The term waste is used to identify concentrated fill areas wherein the operating landfill purposely placed waste within a cell or open trench. The percentage of waste materials within concentrated fill areas varies, depending upon how the waste was placed and compacted, and how or if daily soil cover was used during landfill operations to control blowing waste and infiltration of precipitation into the buried waste.

Fill soils above buried debris and waste (cover fill) was encountered at the surface and varied in its depth to the top of waste from one ft bgs to six ft bgs across the site. The cover fill consisted of typically well-graded, fine- to coarse-grained sands and fine gravel cover fill in the uppermost layers above the waste material. Rounded river cobbles 3 to 12 inches in diameter were encountered at limited locations and depths in the cover fill.

Below the cover fill, a medium- to coarse-grained sand associated with landfill waste and decomposed waste was encountered and varied in its depth across the Site. The debris and waste encountered in the soil borings was consistent with the materials found in the test pit excavations and consisted of household waste (newspapers, plastic bags, personal items, cans, bottles/glass, appliances, water heaters, plastic), construction and demolition debris (lumber, sawdust, concrete bricks and blocks, broken concrete slab, drywall, conduit, stucco), commercial/industrial waste (car parts, tires, fabric, leather) and yard waste (grass cuttings, tree trimmings).

The native material below the waste fill consists of a medium- to coarse-grained sand with some gravel. Native subgrade is hard/dense in places (either cemented or partially indurated), and is

composed of arkosic sand/sandstone. Layers of native, reddish-brown silt with a trace of clay were encountered in several of the soil borings which appears to be associated with the harder, partially indurated arkosic sandstone found throughout the Site. Detailed test pit logs and soil boring logs with soil lithologies are presented in **Appendix B. Tables 3** and **4** summarize the intervals of buried waste encountered in the test pits and soil borings, respectively. There were odors associated with decomposing waste and a black tar like substance was observed in soil boring SB-23 in the SSS at 7 to 9 ft bgs. Visual evidence was not observed in any of the other soil borings to indicate the presence of contamination. PID screening ranged from 0.0 ppm in soil borings SB-9, SB-15 and SB-16 to 67.7 ppm in soil boring SB-11.

The following sections summarize results obtained from the test pits regarding the nature and extent of buried wastes, laboratory analytical results from soil samples collected from the auger borings, and laboratory analytical results for vapor samples collected from the three-nested soil vapor monitoring wells.

3.2 Test Pit Excavation Results

Test pit excavation results revealed the following regarding the profile of materials at the former Landfill and nature and extent of the buried wastes. **Figures 3** and **4** illustrate the thickness of the cover and waste fill, respectively.

- **Fill material**: A medium- to coarse-grained sandy and gravelly fill material covered the surface of the landfill and varied in its thickness across the area. Beneath the surficial fill, was medium to coarse-grained sands with varying amounts of buried waste, consisting mainly of inert materials (e.g., glass, metal, plastic, household wastes), observed from approximately 6 inches bgs to depths ranging from 6 ft bgs to 12 ft bgs. Soil fill is mixed with waste and debris in most of the waste pits and was predominant in OTP-16, which contained fill material from one-foot bgs to 6.5 ft bgs (**Figure 2**).
- **Waste and debris**: The landfill waste and debris encountered in the Site consisted mainly of inert materials (e.g., glass, metal, rubber) with some plastics, household waste, car parts, building materials and construction and demolition debris. This material was observed intermittently scattered at the surface/near surface throughout the test pit excavation and soil boring investigation area. Buried waste mixed with some cover fill was encountered up to a depth of 23.5 ft bgs and was concentrated in the central portion of the landfill. The following test pits encountered waste to total depths greater than 9 ft bgs: OTP-03, OTP-10, OTP-17, OTP-18, OTP-23 and OTP-24 (**Figure 2**). Waste amounts ranged from 0 to 30% by volume at test pits OTP-07, 0TP-11, and OTP-15 up to 60 to 70% by volume at test pits OTP-03, OTP-10, OTP-17, OTP-18, OTP-23 and OTP-24. The type of waste was characterized as household waste; with paper, plastic, metal, rubber, wire, clothing, old

carpet, building materials and landscape debris as the main components of the landfill (**Figures 4 and 5**). There were some larger items, such as appliances and concrete chunks, found scattered throughout the landfill and encountered in the test pit excavations.

- **Native (in-situ) soils**: Native (in-situ) subgrade soils beneath the fill consisted of moist, fine- to coarse-grained sands and gravel. Native materials were observed in test pits OTP-2, OTP-4, OTP-5, OTP-12, OTP-13, OTP-14, OTP-19, and OTP-20. These test pits did not encounter any landfill waste and consisted of native soil below a thin layer of cover fill.

The buried waste includes both biodegradable organic materials (lumber, green waste, household waste, etc.) and non-biodegradable, inert waste (glass, concrete, plastic, etc.). Both the relative percentages of biodegradable to non-biodegradable waste, and the digested to non-digested waste, varies across the Site. Where the buried waste has been kept relatively isolated from infiltrating moisture, the biodegradable content is still relatively high (where it is present), and is visible in the excavated samples from the test pits and borings. Where moisture has intruded the buried waste, organic materials have been largely digested – methane has been produced, and the volume of solid waste has reduced. The black materials noted in many of the boring and test pits samples are decomposed organic materials. Because of the age of the Landfill, methane production is mature and will stabilize/reduce unless moisture is further introduced into the waste or is redistributed within the waste mass.

Surface/near surface conditions of test pits located along the southern perimeter of the Site boundary (test pits OTP-02, OTP-04, and OTP-5) consisted mainly of sands and gravel. No waste or debris was present at the surface/near surface at these locations. Fill, observed overlying the native soil at test pits OTP-01 and OTP-03, ranged from 1-1.5 ft thick.

Surface/near surface conditions of test pits located along the western perimeter of the Site boundary (test pits OTP-12, OTP-13, OTP-14, OTP-19 and OTP-20) contained medium- to coarse-grained sand and gravels. No waste or debris was present in the subsurface or surface at these locations. A one to three ft thick layer of fill was observed to overly the waste material/debris encountered in test pits OTP-15 and OTP-16.

Application of a final soil cap during operation of the former landfill is not evident. Waste material (glass, metal, wood, plastic, paper, other household waste) was observed interbedded with medium to coarse sand throughout the Landfill area which is more indicative of the “trench-fill” method, where soil is placed as daily cover during landfill operations to minimize wind-blown transport of the waste. Test pit results also confirmed that the lateral extent of buried waste appears to be within the previously developed landfill boundary as shown on **Figure 2,** although may extend slightly to the east as buried waste was observed in shallow soils (less than 5.5 ft bgs) in test pits on the eastern boundary (OTP-06, OTP-07, OTP-09, and OTP-11).

3.3 Soil Sampling Analytical Results

Phase II ESA soil samples were analyzed for VOCs, SVOCs (including PAHs), PCBs, nitrite/nitrate, ammonia, total nitrogen, and metals. All analytical laboratory data are provided in **Appendix E**. Phase II ESA soil analytical results are summarized in **Table 2.**

Analytical results for Site soils were compared to current NMED Soil Screening Levels (SSLs) for residential, construction, and industrial (occupational) workers. The only organic constituent (e.g. VOCs, SVOCs, PAHs) reported above presence (above reporting limits [RLs]) was diethyl phthalate in soil borings SB-17 (0.26 ppm), SB-21 (0.22 ppm), and SB-26 (0.22 ppm). This compound is a well-known laboratory contaminant. These results were well below the NMED SSLs of 49,300 milligrams per kilogram (mg/kg).

The results of the soil sampling indicate that the following 12 metals are present above RLs in Site soils: aluminum, arsenic, barium, boron, chromium, cobalt, copper, iron, lead, manganese, nickel, and zinc. None of these metals were present at concentrations exceeding respective NMED residential SSLs. However, seven (7) of the soil boring samples collected that were non-detect for arsenic have RLs (<12 mg/kg) greater than the NMED SSL for arsenic (7.07 mg/kg) for residential use.

Nitrogen levels were identified in some of the soil boring samples that were collected. Total nitrogen by the Kjeldhal method was detected in above RLs soil borings SB-17, SB-19, SB-22, SB-24, SB-26, and SB-27 ranging from 55 to 290 mg/kg. Ammonia as nitrogen was also detected above RLs in soil borings SB-19, SB-22, SB-24, and SB-26; ranging from 35 to 91 mg/kg. Nitrite as nitrogen was detected above RLs in soil borings SB-22 and SB-24. Nitrate as nitrogen was detected above RLs in soil borings SB-21, SB-22 and SB-24; ranging from 0.42 to 37 mg/kg. The results for nitrite as nitrogen and nitrate as nitrogen were all below the NMED SSLs for those constituents (nitrite 7,820 mg/kg, and nitrate 125,000 mg/kg).

3.4 Soil Vapor Sampling Analytical Results

On July 13 and 14, 2017, a total of ten air samples were collected from the three (3) nested soil vapor monitoring wells. Samples were collected from the shallow, intermediate, and deep screened zones in the three soil vapor monitoring wells (SV-01, SV-02 and SV-03), along with a duplicate sample. All samples were submitted for the analysis of VOCs via EPA Method TO-15 and the results compared to regulatory standards/guidelines considered most appropriate for the type of air sampled (i.e. soil vapor).

Soil vapor sampling analytical results obtained from the nine (9) soil vapor samples collected from the three (3) nested soil vapor wells were compared to the Vapor Intrusion Screening Levels

(VISLs) defined in the NMED Risk Assessment Guidance for Site Investigations and Remediation (NMED, 2017). Any constituent identified in Site soil vapor was present at trace concentrations (reported at or below practical quantitation limits [J-flagged]) and are therefore estimated values that may or may not be reflective of actual occurrence.

The analytical results for soil vapor are presented in **Table 5** and presented in **Figure 3.** The complete analytical report is provided in **Appendix E.**

The following is a summary of the soil vapor sampling results:

- Trichloroethene (TCE) was detected in all the sampled wells and ranged in concentration from 19 micrograms per cubic meter (µg/m$^{3)}$ in soil vapor monitoring well SV-03-S to 210 µg/m^3 SV-02-D. These results were above the NMED residential VISLs in soil vapor wells SV-01-S, SV-01-I, SV-01-D, SV-02-I and SV-02-D. All the results were below the NMED industrial VISLs.
- Tetrachloroethene (PCE) was detected in all the sampled wells and ranged in concentration from 13J µg/m^3 in soil vapor monitoring well SV-03-I to 190 µg/m^3 SV-02-D. These results are all below the NMED residential VISLs.
- 1,2,4-trimethylbenzene was detected in all the sampled wells and ranged in concentration from 27 µg/m^3 in soil vapor monitoring well SV-03-I to 740 µg/m^3 in SV-01-S. There is no established NMED VISL for this analyte.
- 1,4-dichlorobenzene was detected in all the sampled wells and ranged in concentration from 43 µg/m^3 in soil vapor monitoring well SV-02-I to 490 µg/m^3 in SV-01-I. These results were all below the NMED residential VISLs.
- Hexane was detected in all the sampled wells and ranged in concentration from 110 µg/m^3 in soil vapor monitoring well SV-03-I to 490 µg/m^3 in SV-02-D. These results were all below the NMED residential VISLs.
- Methylcyclohexane was detected in all the sampled wells and ranged in concentration from 190 µg/m^3 in soil vapor monitoring well SV-03-S to 730 µg/m^3 in SV-01-S. These results were all below the NMED residential VISLs.
- Methylene chloride was detected in all the sampled wells and ranged in concentration from 17J µg/m^3 in soil vapor monitoring well SV-03-I to 830 µg/m^3 in SV-02-D. These results were all below the NMED residential VISLs.
- Trans-1,2-dichloroethene was detected in all the sampled wells and ranged in concentration from 42 µg/m^3 in soil vapor monitoring well SV-03-S to 250 µg/m^3 in SV-01-S. These results were all below the NMED residential VISLs.

- Vinyl Chloride was detected in all the sampled wells and ranged in concentration from 140 µg/m^3 in soil vapor monitoring well SV-03-S to 4100 µg/m^3 in SV-02-D. Soil vapor wells SV-03-S, SV-03-I, and SV-03-D detected concentrations greater than the NMED residential VISLs. Soil vapor wells SV-01-S, SV-01-I, SV-01-D, SV-02-S, SV-02-I and SV-02-D detected concentrations greater than the NMED industrial VISLs.
- The following analytes were detected in several of the soil vapor monitoring wells, but not all of them: 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, 1,3-butadiene, 4-methyl-2-pentanone, chlorobenzene, cumene, and styrene. These results were all below the NMED residential VISLs. There are no NMED VISLs for 4-methyl-2-pentanone.
- 1,1,2,2-trichloroethane and carbon tetrachloride were not detected above the RLs in any sampled wells.
- Chloroform was reported above RLs in three (3) of the nine (9) soil vapor samples collected (SV-01-I, SV-03-S, and SV-03-D) and ranged in concentration from 7.1J µg/m^3 in soil vapor monitoring well SV-03-D to 25J µg/m^3 in SV-01-I.
- Benzene was detected in all the sampled wells and ranged in concentration from 76 µg/m^3 in soil vapor monitoring well SV-03-S to 410 µg/m^3 in SV-02-S. Soil vapor wells SV-01-S, SV-01-D, SV-02-S, SV-02-I and SV-02-D had concentrations above the NMED residential VISL but below the NMED industrial VISL.
- Toluene was detected in all the sampled wells and ranged in concentration from 22 µg/m^3 in soil vapor monitoring well SV-03-I to 340 µg/m^3 in SV-02-S. These results were all below the NMED residential VISLs.
- Ethylbenzene was detected in all sampled wells and ranged in concentration from 25J µg/m^3 in soil vapor monitoring well SV-02-D to 930 µg/m^3 in SV-02-S. Soil vapor well SV-02-S had a concentration above the NMED residential VISL but below the NMED industrial VISL.
- Xylenes were also detected in all the sampled wells and ranged in concentration from 31 µg/m^3 in soil vapor monitoring well SV-03-I to 480 µg/m^3 in SV-02-S. These results were all below the NMED residential VISLs.
- Chloroform, 1,2-dichlorobenzene, 1,1,2-trichloroethane and 1,2,4-trichlorobenzene have RLs above the NMED residential VISLs.

According to the laboratory narrative, the following analytical notes were supplied:

- Samples SV-01-S, SV-01-I, SV-01-D, SV-04-I, SV-02-S, SV-02-I, SV-02-D, SV-03-I and SV-03-D were transferred from SIM/Low Level analysis to full scan TO-15 due to high

levels of target/non-target compounds. This resulted in several analytes having RL's higher than the residential VISLs for those analytes.

- As per the INTERA project-specific request, the laboratory has reported estimated values for target compounds hits that are below the RL but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.
- Dilution was performed on samples SV-02-I and SV-03-S due to the presence of high level target species.
- Dilution was performed on samples SV-01-S, SV-01-I, SV-01-D, SV-04-I, SV-02-S, SV-02-D, SV-03-I and SV-03-D due to matrix interference.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

The following QA/QC subsections present the data quality objectives (DQO) and measurement quality objectives identified for this Project and the results for DQO parameters.

4.1 Data Quality Objectives

DQOs are qualitative and quantitative statements developed through EPA's seven-step DQO process (EPA 2000, 2002). The DQOs clarify the study objectives, define the most appropriate data to collect and the conditions under which to collect the data, and specify tolerable limits on decision errors that were used as the basis for establishing the quantity and quality of data needed to support decision-making. The DQOs were used to develop a scientific and resource-effective design for data collection. The seven steps of the DQO process for the ESA at the Site are presented in Table 3 of the SAP (INTERA, 2017).

4.2 Measurement Quality Objectives

All analytical results were evaluated in accordance with precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters to document the quality of the data and promote data that are of sufficient quality to meet the Project objectives. With regard to these PARCC parameters, precision and accuracy method blanks were prepared at the frequency prescribed in the individual analytical method, or at a rate of five % of the total samples, if a frequency is not prescribed in the method. The subsections below describe each of the PARCC parameters.

4.2.1 Precision

Precision is the degree of mutual agreement between individual measurements of the same property under similar conditions. Usually, combined field and laboratory precision is evaluated by collecting and analyzing FDs and then calculating the variance between the samples, typically as a relative percent difference (RPD).

$$RPD = \frac{|A - B|}{(A \pm B)} * 100\%$$

where:

A	=	first duplicate concentration
B	=	second duplicate concentration

RPDs were not calculated for non-detects. Two (2) soil sample duplicate (OLF-SB-119-18.5-21 and OLF-SB-126-15-17) samples were collected during the sampling event to assess the precision

of the laboratory analyses. The duplicate samples were analyzed for the same analytes as their primary samples. The duplicate sample results and the RPDs for soil are provided in **Table 6**. The RPD between primary sample OLF-SB-19-18.5-21 and the respective duplicate sample (OLF-SB-119-18.5-21 during the soil sampling event ranged from a minimum of 2.6% for silica to a maximum of 54.6% for dissolved lead. The RPD between primary sample OLF-SB-26-15-17 and the second respective duplicate sample OLF-SB-126-15-17 during the soil sampling event ranged from a minimum of 0.0% for dissolved chromium to a maximum of 49.5% for total nitrogen.

One (1) soil vapor duplicate (SV-04-I) sample was collected during the soil vapor sampling event to assess the precision of the laboratory analyses. The duplicate sample was analyzed for the same analytes as the primary sample. The duplicate sample results and the RPDs for soil vapor are provided in **Table 8.** The RPD between the primary sample (SV-01-I) and the respective duplicate sample (SV-04-I) during the soil vapor sampling event ranged from a minimum of 0.0% for methylcyclohexane to a maximum of 28.6% for 1,2,4-trimethylbenzene.

4.2.2 Accuracy

A program of sample spiking was conducted by the laboratory to evaluate laboratory accuracy. The program included analysis of matrix spikes, laboratory control samples or blank spikes, and method blanks. Matrix spikes were prepared and analyzed at a frequency of 5%. Laboratory control samples or blank spikes were also analyzed at a frequency of 5%. The results for the spiked samples were used to calculate the percent recovery for use in evaluating accuracy.

$$\text{Percent Recovery} = \frac{S - C}{T} * 100\%$$

where:

S	=	Measured spike sample concentration
C	=	Sample concentration
T	=	True or actual concentration of the spike

HEAL requires that the percent recovery fall within the 99% confidence interval of established control limits. If control units are not available, the range of 70% to 130% is used, unless a different range is specified by the method. Percent recovery values of the measured spike/primary sample concentrations were determined by HEAL. INTERA reviewed the laboratory QA/QC summary report and identified that the spike recovery percentages as calculated by HEAL were within acceptable control limits for most samples. HEAL qualified the following analytes in the soil sampling analytical results with a qualification of “S,” which states that the percent recovery is outside of range due to dilution or matrix. Nitrogen, nitrite (As N) in soil sample OLF-SB-24-7-9 and selenium in soil samples OLF-SB-25-40-42 and OLF-SB-26-15-17 were qualified with “S.”

4.2.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represent 1) the characteristics of a population, 2) variations in a parameter at a sampling point, or 3) an environmental condition that they are intended to represent. For this Project, representative data were obtained through careful selection of sampling locations and the sample analytical parameters. Representative data were also obtained through proper collection and handling of samples to avoid interference and minimize contamination.

Representativeness of data was promoted through the consistent application of established field and laboratory procedures. Field blanks and laboratory blanks were evaluated for the presence of contaminants to aid in evaluating the representativeness of sample results.

As part of the Phase II ESA, a field blank and equipment rinsate sample were collected during drilling and acquisition of the soil samples. The field blank was evaluated for the same analytical suites as the primary investigation and FD samples. Results of the field blank indicate the presence of chloroform at 2.1 µg/L 0.33 mg/L and bromodichloromethane at 1.1 µg/L. The field ER sample was evaluated for the same analytical suites as the primary investigation and FD samples and was collected during drilling activities to evaluate the effectiveness of field decontamination procedures. Results indicated the presence of acetone at 12 micrograms per liter (µg/L) and chloroform 1.5 µg/L. These three analytes are common laboratory contaminants.

4.2.4 Completeness

Completeness is a measure of the percentage of project-specific data that are valid. Valid data were obtained because samples were collected and analyzed in accordance with the outlined QC procedures, and none of the QC criteria that affect data usability were exceeded. When all data evaluation was completed, the percent completeness value was calculated by dividing the number of useable sample results by the total number of sample results planned for this investigation.

A total of 30 field investigation samples were collected at the Site during the performance of the Phase II ESA. This number includes all primary investigation and any field QA/QC samples collected. QA impacting qualifiers (i.e., H and S) were applied to at least one (1) analyte in four (4) of the field investigation samples collected as part of the Phase II ESA. An “H” qualifier indicates the holding times for preparation and/or analysis was exceeded, and an “S” qualifier means the spike recovery during the analysis was outside of accepted recovery limits. If it is assumed these samples with qualifiers are unusable, then the completeness of the data is as follows:

26 useable samples/30 total samples = 86.7%
(This is the percentage of project-specific data that are valid.)

4.2.5 Comparability

Comparability expresses the confidence with which one data set can be compared with another. Comparability of data was achieved by consistently following standard field and laboratory procedures and by using standard measurement units in reporting analytical data. INTERA believes that the analytical data are consistent and can be compared between reports and to other analytical data collected at the Site.

4.2.6 Detection and Quantitation Limits

The method detection limit is the minimum concentration of an analyte that can be reliably distinguished from background noise for a specific analytical method. The quantitation limit represents the lowest concentration of an analyte that can be accurately measured and reproduced in a sample matrix. Project-required RLs (PRRL) are contractually specified minimum quantitation limits for specific analytical methods and sample matrices, such as soil or water, and are typically several times the method detection limit to allow for matrix effects. PRRLs, which are established by INTERA in the scope of work for subcontract laboratories, are set to establish minimum criteria for laboratory performance. Actual laboratory quantitation limits may be substantially lower.

For this Project, analytical methods have been selected so that the PRRL for each target analyte is below the applicable regulatory screening criteria: the NMED screening levels for soil, and soil vapor. INTERA reviewed the laboratory reports and compared the analytical results to the PRRLs. This comparison shows that the selected analytical methods and associated PRRLs are capable of quantifying COPCs at concentrations below the regulatory action levels in most cases. The arsenic in soil RL was above the arsenic NMED residential SSL but below the arsenic NMED commercial/industrial SSL in several of the soil samples. In addition, chloroform, 1,2-dichlorobenzene, 1,1,2-trichloroethane and 1,2,4-trichlorobenzene have RLs above the NMED residential VISLs for the soil vapor sampling results. This is because the laboratory transferred soil vapor samples SV-01-S, SV-01-I, SV-01-D, SV-04-I, SV-02-S, SV-02-I, SV-02-D, SV-03-I, and SV-03-D from SIM/Low Level analysis to full scan TO-15 due to high levels of target/non-target compounds.

Based on the evaluation of the PARCC parameters, the quality of the data is considered valid and sufficient to meet the Project objectives and support the conclusions and recommendations of this Phase II ESA Report.

5.0 CONCEPTUAL SITE MODEL UPDATE

This section presents an updated conceptual site model (CSM) for the former Frank Ortiz Landfill. Data gathered during this investigation from test pits, soil borings, and related laboratory analyses of soil and vapor samples as described in this Report, has provided the information necessary to refine the previous understanding of the Site before this additional site assessment was conducted.

Figure 6a illustrates the updated CSM, referenced in this section, to show the geometry and components of the Landfill, and the relationship of the Landfill to potential migration pathways of source vapors and liquids from the Landfill to receptors. **Figure 6b** illustrates the area landfills and a regional potentiometric surface map. The following sections describe the geometry of the Landfill and nature and extent of buried wastes, the nature and extent of impacted subgrade soils beneath the buried wastes, the nature and extent of soil vapors beneath the buried wastes, and potential impacts to underlying groundwater.

5.1 Extent of Landfill Geometry and Nature and Extent of Waste

The Landfill boundary defined prior to investigations for this Project is approximately rectangular in shape and 18 acres in area as illustrated on **Figures 4** and **5.** Based upon the extensive characterization from test pits and soil borings shown on **Figures 4** and **5,** the aerial extent of the fill areas of the former Landfill is estimated to be 16 acres. Throughout the defined fill areas, the waste thickness varies considerably as shown on **Figure 4. Figures 7** and **8** are cross sections through the Landfill that help to illustrate the geometry of the fill areas and the extent of the overlying cover fill.

The cover fill that overlies the waste material on the former Frank Ortiz Landfill varies in its depth thickness across the areal extent of the Landfill. Utilizing the geophysics report from Sunbelt (2015) and the soil borings and test pits drilled and excavated in July 2017, the cover soils show a varied and inconsistent covering of the waste material across the Landfill. Based on the soil borings and test pit excavations, the shallowest cover fill (1 to 2 ft) is found in the southwest corner of the landfill (**Figure 5**). This corresponds to soil borings SB-01, SB-23, SB-24, and SB-25, and test pit excavations OTP-01 and OTP-03. There are also two small areas of 1 to 2 ft thickness located in northwest and central areas of the Landfill where soil boring SB-13 was advanced and OTP-10 was excavated. Cover fill of 3 to 4 feet thickness is found throughout most of the Landfill, especially in the western and northern sections of the landfill. This accounts for more than 50% of the coverage of the Landfill and corresponds to soil borings SB-03, SB-05, SB-11, SB-12, SB-14, SB-17 and SB-19; and test pit excavations OTP-6, OTP-8, OTP-9, OTP-15, OTP-17, OTP-22, and OTP-23. Areas with 5 to 6 feet of cover fill exist in the southeast and northern sections of the landfill where soil boring SB-06, SB-15, and SB-16, and test pit excavations OTO-16 and OTP-21 are located. There are two small areas on the landfill that have cover fill of greater than

7 ft thickness. These are in the northern tip and southeastern parts of the Landfill near soil boring SB-04 and SB-10. See **Figure 4** for a detailed map of the cover fill thickness across the landfill.

The waste debris fill below the cover fill on the former Frank Ortiz Landfill also varies in its thickness across the areal extent of the Landfill. The areas with the thinnest amount of waste (0 to 6 feet) occur in the southern half of the Landfill, where soil borings SB-03, SB-04, SB-21, and SB-24; and test pit excavations OTP-01, OTP-08, OTP-09, OTP-17, and OTP-22 are located (**Figure 4**). There are small areas along the Landfill boundary in the northern section that also have thin areas of waste thickness. These areas are found near soil borings SB-06, SB-08, SB-10, SB-15, and SB-22; and test pit excavations OTP-11, OTP-15, and OTP-2. The waste thickness increases gradually toward the center of the Landfill. This occurs in concentric areas of thickness that increases from approximately 7 ft to 23 ft of waste thickness at the center of the Landfill. There is a large area where waste thickness ranges from 10 to 23 ft in the north-central area of the Landfill, where soil boring SB-05, SB-11, SB-12, SB-13, SB-14, SB-19, and SB-26 are located. A smaller area in the south-central portion of the Landfill also has a waste thickness of 11 to 20 ft, where soil boring SB-23 and SB-25 are located. See **Figure 5** for a detailed map of the cover fill thickness across the Landfill.

From this information, the volume of cover fill at the Landfill is estimated at 69,370 cubic yards (CY). The volume of waste fill at the Landfill beneath the cover fill and above native subgrade is approximately 60,000 CY. These volume estimates were calculated by AutoCAD Civil3D. A volume analysis was completed by creating two surfaces, “ground” and “top of waste.” The test pit and soil boring depths were used to establish elevations based on the survey conducted by WayJohn at the Site on July 1, 2017. The two surfaces were compared in AutoCAD Civil3D and a volume surface was calculated. This analysis is bound by the data points, while interpolation between points was performed to generate the two surfaces (no extrapolation was performed outside the boundaries of the data). Based on this analysis, the cover fill volume is estimated at 69,370 CY.

The waste fill volume was also calculated using the test pit and soil boring elevation data. However, rather than assuming the waste composition for the thickness interval of the entire areal extent of waste (Landfill Area), average relative waste composition percentages were applied to seven areas within the Landfill Area. The relative percentages of waste as shown in **Table 3** and **Table 4.** Relative percentages of waste ranging from 30-70% were applied to equipotential areas extracted from **Figure 4.** Based on this analysis, the estimated waste fill volume is 60,000 CY.

Figure 7 and **Figure 8** show the two cross sections between the longest axis and the greatest extent (thickness) of waste. These figures demonstrate the data interpolation and the two surfaces as calculated with AutoCAD Civil3D.

5.1.1 Waste and Debris Composition

The nature of waste fill at the Landfill has been described in Section 3, and is detailed in the test pit and boring logs in **Appendix B.** The buried waste and debris encountered in the former Frank Ortiz Landfill consist of household waste (newspapers, plastic bags, personal items, cans, bottles/glass, appliances, water heaters, plastic), construction and demolition debris (lumber, sawdust, concrete bricks and blocks, broken concrete slab, drywall, conduit, stucco), commercial/industrial waste (car parts, tires, fabric, leather) and yard waste (grass cuttings, tree trimmings).consisted mainly of inert materials (e.g., glass, metal, rubber) with some plastics, household waste, car parts, building materials and construction debris. This material was observed intermittently scattered at the surface/near surface throughout the test pit excavation and soil boring investigation area. Buried waste mixed with some cover fill was encountered up to a depth of 23.5 ft bgs and was concentrated in the central portion of the landfill. The following test pits encountered waste to total depths greater than 9 feet bgs: OTP-03, OTP-10, OTP-17, OTP-18, OTP-23 and OTP-24 (**Figure 2**). Waste amounts ranged from 0–30% by volume at test pits OTP-07, 0TP-11, and OTP-15 up to 60–70% by volume at test pits OTP-03, OTP-10, OTP-17, OTP-18, OTP-23 and OTP-24. The type of waste was characterized as household waste, with paper, plastic, metal, rubber, wire, clothing, old carpet, building materials and landscape debris as the main components of the landfill. There were some larger items such as appliances and concrete chunks found scattered throughout the landfill and encountered in the test pit excavations.

5.1.2 Soil Vapor and Subsurface Soil

In April 1993, soil vapor sampling was conducted by CDM at 50 direct push locations. Sample depths ranged from 7 feet to 20 ft below grade. The majority of the soil vapor samples (45) were analyzed for landfill gases (LFG) using an on-site mobile laboratory. Five of the samples were also analyzed for VOCs at 3 ft below ground surface (bgs). Samples of vapors contained in the fill and soil cover were found to contain a number of hydrocarbons, chlorinated solvents and chlorinated solvent degradation products. Concentrations of some of the contaminants exceed 1,000 ppb. The previous soil vapor contaminant concentration data are limited to areas from the middle of the landfill and from a maximum depth of 30 feet bgs (Golder, 2010).

The use of this historical soil vapor data is limited since some of it is more than 20 years old. Our experience has shown that the concentrations of contaminants such as petroleum hydrocarbons and chlorinated solvents detected in soil vapor can vary drastically with time as the waste mass and contaminants degrade. In light of this, a more recent data set was needed to evaluate both the migration potential of contaminants and current risk. Soil vapor sampling analytical results obtained from the nine (9) soil vapor samples collected from the three (3) nested soil vapor wells installed by INTERA were compared to the VISLs defined in the *NMED Risk Assessment*

Guidance for Site Investigations and Remediation (NMED, 2017). The results indicated elevated vapor concentrations of petroleum hydrocarbons and chlorinated solvents (**Figure 3**).

CDM sampled soils at five locations under the fill in 1993 and analyzed soil samples for adsorbed phase contaminants, including hydrocarbons, VOCs, toxic metals and inorganic nitrogen species. Analyses of the soil samples indicated that low concentrations of adsorbed petroleum hydrocarbons and VOCs are present in limited areas under the fill; however, the concentrations of hydrocarbons and VOC's that were detected were well below NMED SSLs. With the exception of a low concentration of silver detected in one soil sample, no toxic metals were detected in the soils sampled during this survey.

As discussed in Section 2.4, INTERA provided drilling oversight at 27 locations. Field screening activities were conducted during drilling and soil sampling. These activities indicate that maximum PID results were concentrated in the areas of thicker waste (**Figures 4 and 9)**. The PID field screening activities were used to help determine the soil samples submitted for analysis. INTERA collected a total of 16 primary investigation subsurface soil samples at the Site. The results of the soil sampling indicate that the Site subsurface has been minimally impacted by potential on-site contaminant sources. No VOCs or PCBs were found in any Site soil sample at concentrations above RLs. The results of the soil sampling indicate that the following 12 metals are present above RLs in Site soils: aluminum, arsenic, barium, boron, chromium, cobalt, copper, iron, lead, manganese, nickel, and zinc. None these metals were present at concentrations exceeding respective NMED residential SSLs.

The CSM has been updated to indicate that while contamination appears to be persistent in the soil vapor phase, it does not appear that contaminants have absorbed to subsurface soil. Whether or not the soil vapor plume may be contributing to groundwater contamination will have to be evaluated with the installation of groundwater monitoring wells hydraulically downgradient of the landfill and the collection and analysis of groundwater samples for the contaminants of concern.

5.1.3 Groundwater

Regional groundwater flow in the southern Española Basin is from the high recharge areas of the Sangre de Cristo Mountains in the east to the low elevation discharge area along the Rio Grande River to the west. However, groundwater flow in the vicinity of the Frank Ortiz Landfill is heavily influenced by pumping of water supply wells to the south. Tesuque Formation groundwater beneath the landfill flows to the east-southeast toward the Torreon, Ferguson, and Alto supply wells according to head contours from the 2000-2005 period and corroborated by more recent data. Heads ranged between 6,650 ft and 6,600 ft amsl during the 2000-2005 period and between 6,665 and 6,630 ft amsl in 2010, yielding a steep head gradient of about 65 ft/5300 ft = 0.012 ft/ft between the most upgradient edge of the nearby Paseo de Vista Landfill to the Ferguson well (Golder,

2010). New groundwater monitoring wells determined necessary and to be installed hydraulically downgradient (i.e., east-southeast) from the Landfill areas identified as having the highest potential to leach contaminants from vadose zone soil and vapor and impact groundwater. Consideration should be given to the potentially dropping water table when designing any needed monitoring well(s). Three proposed monitoring well locations are shown on **Figure 6a.**

No groundwater sampling or water level gauging occurred in this Phase II ESA. Planned groundwater monitoring well installation and sampling activities are outlined in Section 7.0 of this report.

6.0 CONCLUSIONS AND RECOMMENDATIONS

INTERA conducted Phase II ESA activities at the Site from June 12, 2017, to July 14, 2017. The Phase II activities consisted of 1) investigative excavation of 24 test pits located within the footprint of the Site, 2) HSA drilling and sampling of 27 exploratory soil borings, 3) installation of three (3) temporary nested soil vapor monitoring wells, and 4) a single soil vapor sampling event. Results of the Phase II ESA activities, as they relate to the six deficiencies in the NOD Letter, dated November 13, 2015 (NMED, 2013), are summarized in the remainder of this section.

1. *The report did not provide a plan for maintenance of a two-foot cap over the former landfill.*

To aid in addressing this deficiency, one (1) composite sample of cover soils was collected for laboratory analysis of basic engineering index properties including:

- Grain size (ASTM D6913-04[2009]);
- Gravimetric moisture content (ASTM D2216-10);
- Atterberg limits (ASTM D4318-10);
- Unified Soil Classification System (USCS) classification; and
- Compaction (modified Proctor, ASTM D1557-09).

The cover soil sample was determined to be a silty Sand (SM) by particle size analysis. This corresponds to a ratio of 5.6% gravel, 80.3% sand, 10.4% silt and 3.8% clay for the soil sample. However, the Visual Atterberg test determined the soil sample to be a silt (ML). The Proctor Compaction Test determined the soil sample to have an optimum moisture content of 9.1% g/g and a maximum dry bulk density of 2.04 g/cm^3. The gravimetric soil moisture content of the soil sample was 3.2% g/g. A detailed report containing the basic engineering index properties of the cover material is included in **Appendix G** and summarized in **Table 8.**

2. *The report did not adequately define the nature and extent of the landfill waste. Delineation of the waste material may be accomplished through geophysical mapping, trenching, borings, subsurface sampling, and waste sampling.*

To address the second deficiency, a geophysical investigation was conducted by Sunbelt (2015) which provided valuable data related to the areal extent of the waste. This site assessment was completed to define the vertical extent and nature of the waste. This includes the completion of soil borings and test pit excavations.

Test pit excavations were conducted at 24 locations within the confines of the former Frank Ortiz Landfill to determine the nature of former Landfill waste, confirm former Landfill boundaries, and

assess average thickness and variability of the former Landfill cover. Per the SAP, test pit excavations were completed to approximately 12 ft bgs and no soil samples were collected. Test pit excavation revealed the presence of fill material from the ground surface to depths ranging from 6 ft bgs to 12 ft bgs within the boundaries of the former Landfill. Fill material consisted of medium- to coarse-grained sands with fine gravels and contained varying amounts of waste; mainly of inert materials (e.g., glass, metal, wire), from 0 to 30% by volume at test pits OTP-07, 0TP-11, and OTP-15 up to 60 to 70% by volume at test pits OTP-03, OTP-10, OTP-17, OTP-18, OTP-23, and OTP-24. Varying amounts of debris, comprised of inert materials as well as some plastics and construction debris, were also scattered at the surface/near surface throughout the test pit investigation area. Evidence of cap application during operation of the former Landfill does not appear to be present. The Landfill lateral extent, as developed previously, appears to be accurate, although may extend slightly to the east as buried waste was observed in shallow soils (less than 5.5 ft bgs) in test pits on the eastern boundary (OTP-06, OTP-07, OTP-09, and OTP-11).

In addition to the test pit excavations, 27 soil borings with soil sampling at eight (8) locations, as well as the installation of three (3) temporary nested soil vapor wells (at three [3] soil boring locations) were completed to address this second deficiency. Per the drilling plan outlined in the SAP, 19 soil borings were advanced through the waste until native materials were encountered (waste characterization) or reached auger or split spoon refusal, five (5) soil borings were advanced for vadose zone characterization, and three (3) soil borings were installed with temporary nested soil vapor monitoring wells. The TD varied from 11 ft bgs in soil borings SB-8 and SB-9 to 29 ft bgs in soil borings SB-11 and SB-12 for the waste characterization soil borings. TDs in the vadose zone characterization borings ranged from 12 ft bgs in soil boring SB-22 to 30 feet bgs in soil boring SB-17. The three (3) soil borings installed with the temporary nested soil vapor wells (SB-25, SB-26 and SB-27) were installed to depths of 47, 41, and 43 ft bgs, respectively. All final Phase II ESA soil boring locations are presented on **Figure 2.**

Soils encountered during the Phase II ESA consisted of coarse-grained sands and fine gravel cover fill in the uppermost layers above the waste material. This material was encountered from the surface and varied in its depth to the top of waste from 1 ft bgs to 6 ft bgs across the Site. Below the cover fill a medium- to coarse-grained sand associated with landfill waste and decomposed waste was encountered and varied in its depth across the Site. The waste debris encountered in the soil borings was consistent with the materials found in the test pit excavations and consisted of household and yard waste. The native material below the waste consisted of a medium- to coarse-grained sand with some gravel. This material was very hard and in places was composed of partially lithified arkosic sandstone and was pulverized by drilling and the split spoon sampling procedures. In addition, there was some layers of native reddish-brown silt with trace clay that were encountered in several of the soil borings: SB-07 (18-20 ft bgs), SB-19 (21 to 26 ft bgs), SB-25 (31 to 32 ft bgs), and SB-27 (25 to 27 ft bgs). This material appears to be associated with

the harder, partially lithified arkosic sandstone found throughout the Site. Detailed soil boring logs with soil lithologies are presented in **Appendix B.** Visual evidence was not observed in any of the soil borings to indicate the presence of contamination. PID screening ranged from 0.0 ppm in soil borings SB-9, SB-15 and SB-16 to 67.7 ppm in soil boring SB-11.

3. *The report did not adequately define contaminant concentrations in the vadose zone below the waste. Soil samples shall be analyzed for volatile organic compounds (VOC), polyaromatic hydrocarbons (PAH), metals, polychlorinated biphenyls (PCB), and nitrogen species. Soil vapor samples shall be analyzed for VOCs.*

A total of 16 primary investigation subsurface soil samples were collected at the Site. The results of the soil sampling indicate that the Site subsurface has been minimally impacted by potential on-site contaminant sources. Only one SVOC was found to be present but at trace concentrations. No VOCs or PCBs were found in any Site soil samples at concentrations above RLs. The results of the soil sampling indicate that the following 12 metals are present above RLs in Site soils: aluminum, arsenic, barium, boron, chromium, cobalt, copper, iron, lead, manganese, nickel, and zinc. None these metals were present at concentrations exceeding respective NMED residential SSLs. However, seven (7) of the soil boring samples collected that were non-detect for arsenic have reporting limits (<12 mg/kg) greater than the NMED SSL for arsenic (7.07 mg/kg) for residential use.

Nitrogen levels were identified in some of the soil boring samples that were collected. Total nitrogen by the Kjeldhal method was detected above RLs in soil borings SB-17, SB-19, SB-22, SB-24, SB-26, and SB-27, ranging from 55 to 290 mg/kg. Ammonia as nitrogen was also detected above RLs in soil borings SB-19, SB-22, SB-24, and SB-26, ranging from 35 to 91 mg/kg. Nitrite as nitrogen was detected above RLs in soil borings SB-22 and SB-24. Nitrate as nitrogen was detected above RLs in soil borings SB-21, SB-22, and SB-24, ranging from 0.42 to 37 mg/kg. The results for nitrite as nitrogen and nitrate as nitrogen were all below the NMED SSLs for those constituents (nitrite 7,820 mg/kg, and nitrate 125,000 mg/kg).

Soil vapor sampling analytical results obtained from the nine (9) soil vapor samples collected from the three (3) nested soil vapor wells were compared to the VISLs defined in the *NMED Risk Assessment Guidance for Site Investigations and Remediation* (NMED, 2017). The analytical results for soil vapor are presented in **Table 5** and the complete analytical report is provided in **Appendix E.**

The following is a summary of the soil vapor sampling results above the residential VISLs:

- Benzene was detected in all sampled wells and ranged in concentration from 76 µg/m^3 in soil vapor monitoring well SV-03-S to 410 µg/m^3 in SV-02-S. Soil vapor wells SV-01-S,

SV-01-D, SV-02-S, SV-02-I, and SV-02-D had concentrations above the NMED residential VISL but below the NMED industrial VISL.

- Ethylbenzene was detected in all sampled wells and ranged in concentration from 25J µg/m^3 in soil vapor monitoring well SV-02-D to 930 µg/m^3 in SV-02-S. Soil vapor well SV-02-S had a concentration above the NMED residential VISL but below the NMED industrial VISL.
- Vinyl Chloride was detected in all the sampled wells and ranged in concentration from 140 µg/m^3 in soil vapor monitoring well SV-03-S to 4100 µg/m^3 in SV-02-D. Soil vapor wells SV-03-S, SV-03-I, and SV-03-D detected concentrations greater than the NMED residential VISLs. Soil vapor wells SV-01-S, SV-01-I, SV-01-D, SV-02-S, SV-02-I, and SV-02-D detected concentrations greater than the NMED industrial VISLs.
- TCE was detected in all the sampled wells and ranged in concentration from 19 µg/m^3 in soil vapor monitoring well SV-03-S to 210 µg/m^3 in SV-02-D. These results were above the NMED residential VISLs in soil vapor wells SV-01-S, SV-01-I, SV-01-D, SV-02-I, and SV-02-D. All the results were below the NMED industrial VISLs.

4. *The report did not adequately define potential contaminant impacts to ground water. To cure this deficiency a modified Stage 1 Abatement Plan shall include a proposal to assess ground water quality. The proposal must include plans to collect ground water samples at locations adjacent to the site. Samples must be analyzed for VOCs, PAHs, metals, PCBs, and nitrogen species.*

Based on the information gathered during this Site assessment, INTERA recommends the following additional Site remediation/characterization efforts to address the above deficiency: the installation of three (3) dual purpose groundwater/soil vapor monitoring wells downgradient at the Site to adequately define potential impacts to soil vapor and groundwater (proposed monitoring wells Ortiz Park-2, Ortiz Park-3, and Ortiz Park-4). INTERA also recommends installing a soil vapor monitoring well (SV-04) adjacent with the existing groundwater monitoring well Ortiz Park-1. The proposed locations of these monitoring wells are shown on **Figure 6a.**

Please see Section 7.0 of this report for the modified Stage 1 Abatement Plan section developed and considered part of the SAP to address potential contaminant impacts to groundwater (INTERA, 2017). No groundwater monitoring well installation or groundwater sampling activities will be conducted until this section of the SAP is approved by NMED.

5. *The report did not provide a long-term monitoring program. To cure this deficiency a modified Stage 1 Abatement Plan shall include a long-term monitoring program for collection and analysis of soil vapor and ground water samples. Ground water samples*

shall be collected for VOCs, PAHS, metals, PCBs, and nitrogen species. Soil vapor samples shall be collected for VOCs.

Soil borings SB-25 through SB-27 were completed as temporary nested soil vapor monitoring wells SV-01 through SV-03 to help determine if potential COPC releases from on-site sources could impact groundwater. The locations of these soil vapor monitoring wells were determined by information gathered during the test pit excavations and soil borings. These soil vapor monitoring wells and the vapor ports in the proposed dual groundwater/soil vapor monitoring wells can be utilized for a long-term monitoring program for the collection and analysis of soil vapor samples for VOCs.

All nested soil vapor monitoring wells were constructed using 1-inch-diameter, flush-threaded, schedule 40 PVC casing and were completed with 5 ft of 0.020-inch slot-size screen. Three (3) nested wells were installed in each borehole and the screen was set at a shallow, intermediate, and deep zone with an end cap and blank casing to the surface. Soil vapor monitoring well SV-01 was completed to 26, 36, and 46 feet, respectively, for the shallow, intermediate, and deep wells. Soil vapor monitoring well SV-02 was completed to 20, 30, and 40 feet, respectively for the shallow, intermediate, and deep wells. Soil vapor monitoring well SV-03 was completed to 22, 32, and 42 feet, respectively for the shallow, intermediate, and deep wells.

INTERA recommends continued sampling of the soil vapor monitoring wells, both existing and new, on a semi-annual basis and the analysis of these samples for the presence of landfill gases (methane, hydrogen sulfide) and VOCs. In addition, INTERA recommends collection of eight (8) quarterly groundwater samples from the three newly installed downgradient monitoring wells and the current on-site groundwater monitoring well (Ortiz Park No. 1) (please see Section 7.0 below). Long-term monitoring activities will be further defined following groundwater monitoring well installation and sampling activities (please see Section 7.0 below).

6. *The modified Stage 1 Abatement Plan shall include a Quality Assurance Project Plan, a Health and Safety Plan, and a schedule for implementation.*

INTERA developed a SAP, which included an integrated QAPP and SSHASP to address this deficiency in April 2017 (INTERA, 2017). The initial draft of this document was reviewed by both the City and NMED prior to being finalized and implemented. This deficiency is considered addressed and the SAP is considered updated to include the installation of ground water monitoring wells and ground water sample collection (please see Section 7.0 below).

7.0 ADDITIONAL SITE INVESTIGATION ACTIVITIES

This section has been developed as an addendum to the Site SAP (INTERA, 2017). The City proposes to install three additional groundwater monitoring wells (nested with soil vapor monitoring wells) and also install an additional soil vapor monitoring well. The locations of the proposed groundwater monitoring and soil vapor monitoring wells have been approved by NMED in meetings conducted with the City and NMED in May 2018.

There is one existing groundwater monitoring well (Ortiz Park-1) at the Site. The Ortiz Park-1 groundwater monitoring well was installed on April 21, 2004 by HGS Drilling using mud rotary drilling. Groundwater monitoring well Ortiz Park-1 is a 4-inch diameter PVC well with a total depth of 460 ft bgs. and is screened from 350-460 ft bgs. Depth to water at monitoring well Ortiz Park-1 has varied from approximately 353 ft below top of casing (btoc) in 2004 to approximately 364 ft btoc in 2013; recent depth to water measurements taken in 2017 indicate that currently the depth to water is approximately 359 ft btoc and exhibits a rising trend (SMA, 2017). A time series plot illustrating the water levels at monitoring well Ortiz Park-1 is provided as **Figure 10** and the geologic log and well construction details for this monitoring well is provided in **Appendix D.**

Because of the exceedances of the VISLs at the soil vapor monitoring wells within the landfill, INTERA recommends installing dual purpose groundwater/soil vapor monitoring wells in hydraulically downgradient locations from the landfill (**Figure 6a**).

7.1 Task 1 - Groundwater Monitoring Well Installation and Sampling

Task 1 includes the following subtasks, which are described in detail below:

- Project planning;
- Soil boring advancement;
- Ground water and soil vapor monitoring well installation;
- Monitoring well surveying;
- Reporting; and,
- Long-Term Monitoring Plan development.

7.1.1 Project Planning

The first subtask of Task 1 is project planning, which will include the following:

- Apply for well permits from the OSE.
- Execute subcontractor agreements for a licensed well driller, a surveyor, and an IDW disposal company.

- Contact New Mexico One Call to mark utility locations (proposed locations marked during Task 2).
- Contact Mr. Justin Ball, GWQB PM (Justin.Ball@state.nm.us, 505.222.9522) to provide him with INTERA's schedule for performing investigation activities.
- Modify the Site-Specific Health and Safety Plan (SSHASP), which will be reviewed and approved by the INTERA health and safety officer prior to performing field activities and will be available on-site during performance of all field activities.
- Schedule INTERA resources, such as a geologist, an environmental scientist, or an engineer to oversee and/or perform field activities and reporting.
- Secure field equipment from the INTERA equipment pool or from an outside vendor.

7.1.2 Soil Boring Advancement

Four soil borings will be advanced at the Site. Three of the soil borings will be completed as dual-purpose groundwater/soil vapor monitoring wells downgradient at the Site to adequately define potential impacts to soil vapor and groundwater. One soil boring will be completed as soil vapor monitoring well (SV-04) adjacent to the existing groundwater monitoring well Ortiz Park-1. The proposed locations of these monitoring wells are shown on **Figure 6a.**

The Ortiz Park-1 groundwater monitoring well was installed on April 21, 2004, by HGS Drilling using mud rotary drilling. Monitoring well Ortiz Park-1 is a 4-inch diameter polyvinyl chloride (PVC) well with a total depth of 460 ft bgs. and is screened from 350-460 ft bgs. Depth to water at monitoring well Ortiz Park-1 has varied from approximately 353 ft below top of casing (btoc) in 2004 to approximately 364 ft btoc in 2013; recent depth to water measurements taken in 2017 indicate that currently the depth to water is approximately 359 ft btoc and exhibits a rising trend (SMA, 2017). A hydrograph for monitoring well Ortiz Park-1 is provided as **Figure 10** and the geologic log and well construction details for this monitoring well is provided in **Appendix D.**

The drilling of each soil boring will be completed using Rotosonic drilling techniques. A carbide button drilling bit will be used in conjunction with Rotosonic drilling methods to construct each soil boring. Each soil boring will be advanced with an 8-in outer diameter (OD) overshot casing and 6-in core barrel to a maximum depth of approximately 375 ft bgs.

All recovered soil shall be classified according to the Unified Soil Classification System (USCS) and in accordance with ASTM International (ASTM) Standard D 2488–17, *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)* (ASTM, 2017).

Soil samples will be screened for the presence of VOCs using a PID equipped with a 10.6-electron volt lamp in accordance with INTERA's soil field screening SOP (INTERA, 2015b). PID readings will be recorded on the soil boring log.

7.1.3 Monitoring Well Installation

The new downgradient groundwater monitoring wells will be completed as a groundwater monitoring well coupled with permanent soil vapor sampling ports (one shallow, one intermediate, and one deep). To be consistent with the other three on-site soil vapor monitoring wells, the shallow, intermediate, and deep vapor sampling ports will be installed at approximately 10, 30, and 40 ft bgs. The newly installed groundwater monitoring wells will be developed immediately after installation per INTERA's well development SOP (INTERA, 2015c).

Three of the four soil boring will be completed as a 4-inch diameter monitoring well, constructed of 4-inch diameter, flush-threaded, schedule 80 PVC, with 30 feet of 0.020-inch slot screen (10 ft below the water table and 20 ft above the water table) and blank casing to the ground surface, following the INTERA monitoring well installation SOP (INTERA, 2015a). The well's total depth will be approximately 370 ft bgs based on historic groundwater levels observed in monitoring well Ortiz Park-1. Each monitoring well annulus will be backfilled with 10/20 silica sand (filter pack) to approximately 2 ft above the top of the monitoring well screen. At least 5 ft of hydrated bentonite clay chips will be placed above the sand pack. Neat cement grout (95% cement and 5% bentonite powder) will be placed above the bentonite seal to approximately 3 ft below the deepest soil vapor port (50 ft bgs). Each soil vapor port will have 2 ft of 10/20 silica sand placed above and below the soil vapor port. Hydrated bentonite clay granules or ⅜-inch bentonite chips will be placed between the sand packs of each soil vapor port/soil vapor screen interval to form an annular seal between soil vapor wells and will extend from the top of the sand pack associated with the shallow soil vapor port to 3 ft bgs. Hydration of the bentonite will be limited to make certain the soil vapor well screen intervals and surrounding filter pack are not saturated with water. The remaining monitoring well annulus (3 ft bgs to surface) and surface pad will be completed with cement. Each monitoring well will be completed with an above-ground, sloped, circular concrete pad and a protective metal standpipe with locking cover.

The three soil vapor monitoring wells nested with the three groundwater monitoring wells will be constructed as follows. Each soil vapor port will be connected to ¼-inch OD (0.21–inch inner diameter [ID]) stainless steel tubing that will be installed to just above the ground surface. The ¼-inch tubing shall be connected to a compression fitting using a ¼-inch female National Pipe Thread (NPT) connector. A ¼-inch male NPT-valve quick-connect coupler shall then be attached to the ¼-inch female NPT connector. A ¼-inch hose barb non-valve elbow quick-connect can then be attached to the quick-connect coupler to open communication to the soil-vapor port at depth.

Soil vapor monitoring well SV-04 will be installed adjacent to groundwater monitoring well Ortiz Park-1 and completed in the same manner as Site soil vapor monitoring wells SV-01 through SV-03 (INTERA, 2018). The borehole for soil vapor monitoring well SV-04 will be drilled to a depth of approximately 50 ft bgs and will contain three (3) nested soil vapor wells. Each soil vapor well will be constructed using 1-inch diameter, flush-threaded, schedule 40 PVC casing and will be completed with 5 ft of 0.020-inch slot-size screen. Blank casing will be used to complete each monitoring well to a height of approximately 3 ft above ground surface. The borehole will be backfilled with 10/20 silica sand (filter pack) to approximately 2 ft above the top of each well screen. Approximately 2 ft of hydrated bentonite clay granules or ⅜-inch chips will be placed above the sand pack to form an annular seal in the deep and intermediate screened soil vapor wells. The bentonite seal will extend to approximately 4 ft bgs in the borehole from the top of the sand for the shallow soil vapor well. The remainder of the monitoring well annulus and surface pad will be completed with cement. The soil vapor monitoring well ports will be fitted with a ¼-inch barbed nipple with valve attachment for soil vapor sample port.

Surface completions will consist of above-ground, sloped, circular concrete pads and protective metal standpipes with locking covers for groundwater monitoring wells Ortiz Park-2, Ortiz Park-3, and soil vapor monitoring well SV-04.

7.1.4 Soil Sampling

Soil samples will be collected at each of the soil boring locations from below the waste interface to the terminal depth. All recovered soil will be screened in the field using a PID, and the corresponding reading will be recorded on the soil boring log.

Two (2) soil samples will be submitted to the laboratory for analysis from each location; including

- In the borings for monitoring wells Ortiz Park-2, Ortiz Park-3, and Ortiz Park-4, one sample collected just below the total depth of the waste, and one collected at the water table interface per INTERA soil sampling SOP (INTERA, 2016b),
- For SV-04, one sample collected just below the total depth of the waste, and one soil sample collected at the bottom of the soil boring (SV-04).

A total of eight (8) soil samples shall be submitted to the laboratory for analysis.

The soil samples will be analyzed for the following:

- VOCs via EPA Method 8260B (using methanol extraction);
- SVOCs, which will include PAHs via EPA Method 8270 (SIM);

- NMED-designated metals (i.e., arsenic, barium, cadmium, chromium, lead, selenium, silver, uranium, copper, iron, manganese, zinc, aluminum, boron, cobalt, molybdenum, and nickel) by either EPA Method 6010C or 6020 (and mercury by 7470/7471/245.2);
- PCBs by EPA Method 8082 (SIM); and,
- Nitrate/nitrite by EPA Method 300.0 and ammonia and total Kjeldhal nitrogen by SM 4500.

7.1.5 Soil Vapor Sampling

Soil vapor samples shall be collected from each soil vapor sampling at Ortiz Park-2, Ortiz Park-3, Ortiz Park-4, and SV-04 port using laboratory-provided, dedicated sorbent tubes. Soil vapor samples will be collected in two sorbent tubes. This is to ensure that a duplicate sample from each location is available for laboratory analysis; however, these duplicate samples will be analyzed only if required (e.g. due to a failed laboratory run).

Prior to sample collection, the soil vapor sampling port shall be purged to ensure representative sample collection. Soil vapor will be purged at each sampling location using a Combustible Gas Indicator (CGI) meter until readings stabilize, and then field analyzed using a PID prior to sample collection. The INTERA-metered air sampling pump has a measurable flow rate, which is used to quantify the soil vapor purge volume over time. A minimum of three well volumes of soil vapor is purged at each sampling location and then the parameter stability is used to confirm that ambient air is not being drawn in from the surface and thus diluting the sample. The soil vapor sample is then collected by pumping directly through the sorbent tube. The flow rate will be set a 200 cubic centimeters (cc) per minute. With the required detection limit of 1.0 micrograms per cubic meter ($\mu g/m^3$) and a soil vapor purge rate of 200 cc, a purge time of 25 minutes at each soil vapor sampling location will be implemented.

All soil vapor sorbent tubes shall be labeled appropriately with indelible ink and properly stored on-site until shipment to the selected analytical laboratory for analysis of:

- VOCs by EPA Method TO-17

On-site storage and handling of each soil vapor sample will include placement in dark plastic bags within a cooler containing ice. Sorbent tubes are required to be kept cool at all times and out of direct sunlight, both prior to and after analysis; therefore, the collected soil vapor samples should be submitted to the analytical laboratory for analysis as soon as possible, preferably within 24 to 48 hours.

7.1.6 Investigation-Derived Waste

The anticipated IDW generated as part of the Project field investigation includes:

- excavated soil generated from former landfill test pit activities and soil cuttings generated from drilling activities;
- decontamination water generated during drilling and sampling activities;
- disposable personal protective equipment (PPE); and,
- miscellaneous contact waste (e.g. used drilling and sampling supplies, wipes, etc.).

Excluding the excavated waste from within the waste interface of the former Frank Ortiz Landfill, the IDW will be containerized and is proposed to be disposed of as non-hazardous waste. If analytical results indicate that the IDW is hazardous waste, additional expense will incur, and a change order may need to be submitted by INTERA and approved by the City of Santa Fe. The excavated waste from within the waste interface of the former Frank Ortiz Landfill will be stockpiled, transported to, and disposed of at the Caja del Rio Landfill.

Disposable PPE (disposable nitrile gloves) and miscellaneous waste (paper towels, plastic sheeting, etc.) will be containerized in plastic bags, sealed, and disposed of by INTERA. All re-used sampling equipment will be decontaminated per INTERA's equipment decontamination SOP (INTERA, 2016a).

7.1.7 Quality Assurance/Quality Control

All Quality Assurance and Quality Control (QA/QC) procedures, as outlined in the SAP/QAPP will be followed during the Site investigation.

7.1.8 Monitoring Well Survey

A survey of the new monitoring wells will be completed after monitoring well installation is completed. The monitoring wells will be located vertically to the nearest 0.01 foot relative to NAVD 88. The horizontal location of the monitoring wells will be surveyed to the nearest 0.1 foot using NAD 83 and either the State Plane or Latitude-Longitude coordinate system.

7.2 Task 2 – Groundwater Monitoring Event

Task 2 includes the gauging and sampling of monitoring wells and will be completed after the installation of the new monitoring wells as part of Task 1. The following activities will be performed:

- Contact Mr. Justin Ball, GWQB PM (Justin.Ball@state.nm.us, 505.222.9522) to provide him with INTERA's schedule for performing investigation activities.

- Secure transportation and equipment (a vehicle, gauging and sampling equipment, a field logbook, a camera, a tool kit, the SSHASP, etc.).
- Review the SSHASP and conduct daily safety briefings.
- Remove caps from all monitoring wells to relieve pressure caused by a fluctuating water table.
- Gauge depth to water and total depth at all monitoring wells (Ortiz Park-1 and the newly installed monitoring wells, Ortiz Park-2, Ortiz Park-3, and Ortiz Park-4) using a properly decontaminated oil/water interface probe following INTERA's groundwater gauging SOP (INTERA, 2015c). Fluid level readings will be collected on the same day.
- Collect up to four (4) groundwater samples from the four (4) Site monitoring wells (Ortiz Park-1 and the newly installed monitoring wells Ortiz Park-2, Ortiz Park-3, and Ortiz Park-4).
- Collect groundwater samples from up to 4 monitoring wells, and analyze samples for the following:
  - VOCs via EPA Method 8260B;
  - SVOCs, which will include PAHs via EPA Method 8270 (SIM);
  - NMED-designated metals (i.e., arsenic, barium, cadmium, chromium, lead, selenium, silver, uranium, copper, iron, manganese, zinc, aluminum, boron, cobalt, molybdenum, and nickel) by either EPA Method 6010C or 6020 (and mercury by 7470/7471/245.2);
  - PCBs by EPA Method 8082 (SIM); and,
  - Nitrate/nitrite by EPA Method 300.0 and ammonia and total Kjeldhal nitrogen by SM 4500.

Between gauging at each monitoring well, the oil/water interface probe will be decontaminated with a Liquinox/tap water solution followed by a final distilled water rinse. The groundwater monitoring wells will be purged a minimum of one saturated well-casing volume, using either a dedicated electric submersible pump or with a Bennett pump provided by a local vendor. In the event that a well is purged dry, the well will be sampled immediately after a sufficient volume of water has recharged into the well to fill sample containers. During purging activities, groundwater quality parameters (specific conductivity, temperature, and pH) will be monitored for stabilization using a YSI 556 MPS water quality meter or similar water quality meter.

Groundwater samples collected for analysis of VOCs will be placed in contract laboratory-provided containers (INTERA, 2015d). All purged water will be discharged adjacent to the originating well, and if possible on an impermeable surface so that it will evaporate and will not infiltrate into subsurface soil.

After collection, all groundwater samples will be labeled and immediately packed in an ice-chilled cooler for transport to Hall Environmental Analysis Laboratory (HEAL) for analyses. Proper chain-of-custody procedures will be adhered to during sample collection, transport, and delivery to HEAL. All groundwater monitoring and sampling activities will be conducted in accordance with INTERA SOPs for decontamination (INTERA, 2016a), monitoring well gauging (INTERA, 2015c), and groundwater sampling (INTERA, 2015d).

7.3 Task 3 – Additional Site Investigation Report

A report deliverable will be submitted to the City of Santa Fe and NMED after the completion of the additional Site investigation. A comprehensive additional investigation and groundwater monitoring event report will be submitted upon completion of the performed field activities, receipt of analytical data, and data evaluation. The report will summarize field activities, include soil boring logs, monitoring well construction diagrams, field measurements, and laboratory analytical results (historical and present) associated with groundwater monitoring at the Site. The report format will contain the following information:

- Introduction, Scope of Work, and Work Plan Deviations
- Project Description
- Description of Field Activities
- Summary of Data
- Conclusions
- Recommendations
- Figures:
    - Site Plan
    - Potentiometric Surface Map
    - Distribution of VOCs in Groundwater
- Tables:
    - Fluid Level Measurements
    - Laboratory Results (groundwater and soil), including historical groundwater data for existing wells
- Appendices:
    - Soil Boring Logs
    - Monitoring Well Construction Diagrams
    - Field Notes and Forms
    - Laboratory Analytical Reports

The final report will be used to update the existing S1AP. The S1AP will be updated to include all recent environmental investigation information, as well as include the rationale and approach for long-term groundwater and soil vapor monitoring activities required by NMED to be conducted at the Site.

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9.0 WARRANTY STATEMENT AND CERTIFICATION

This report was prepared for the City and NMED only, and is intended for use solely by the City and NMED.

INTERA prepared this report in accordance with generally accepted professional standards used in the field of environmental consulting. These standards were current at the time the work was performed.

INTERA has used professional judgment in collecting and analyzing the information included in this report and in formulating conclusions or recommendations. No other warranty or representation is expressed or implied as to the accuracy of the information, conclusions, or recommendations included or intended in this report. In the case of environmental audits and property assessments, the report relies on information provided to INTERA by the client or the property owner.

INTERA disclaims any liability or responsibility to any person or party for any loss, damage, expenses, fines, or penalties that may arise or result from the use of any information, conclusions, or recommendations contained in this report.

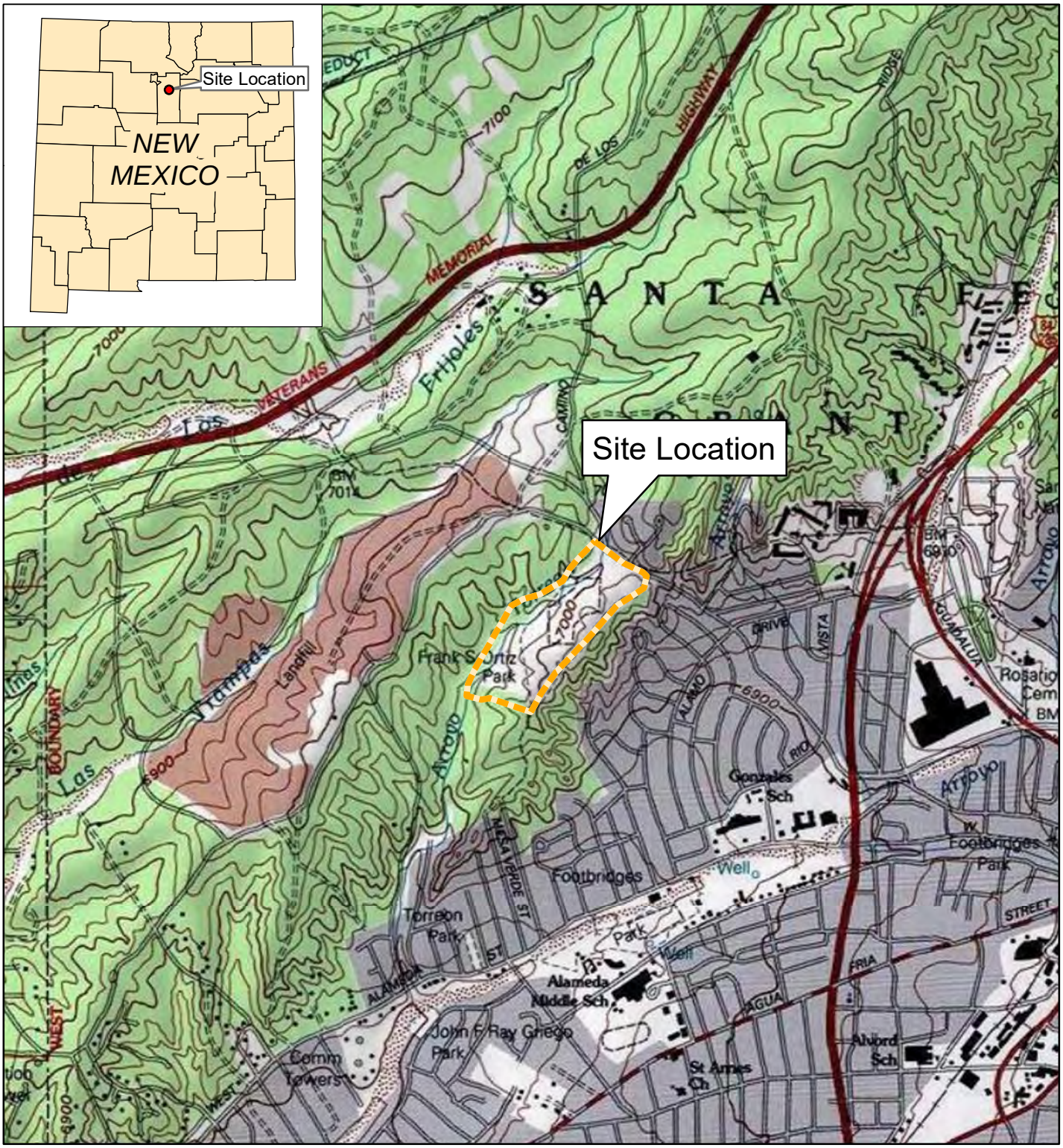
The following person has prepared and/or reviewed this report, is personally familiar with the information submitted in the report, and verifies, to the best of his knowledge, that the contents are true and correct.

Name: **Joseph J. Tracy**

Signature: _____

Title: **Principal Geologist**

FIGURES



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Source(s): Topo – ESRI ArGIS Online

Figure 1
Site Location Map
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

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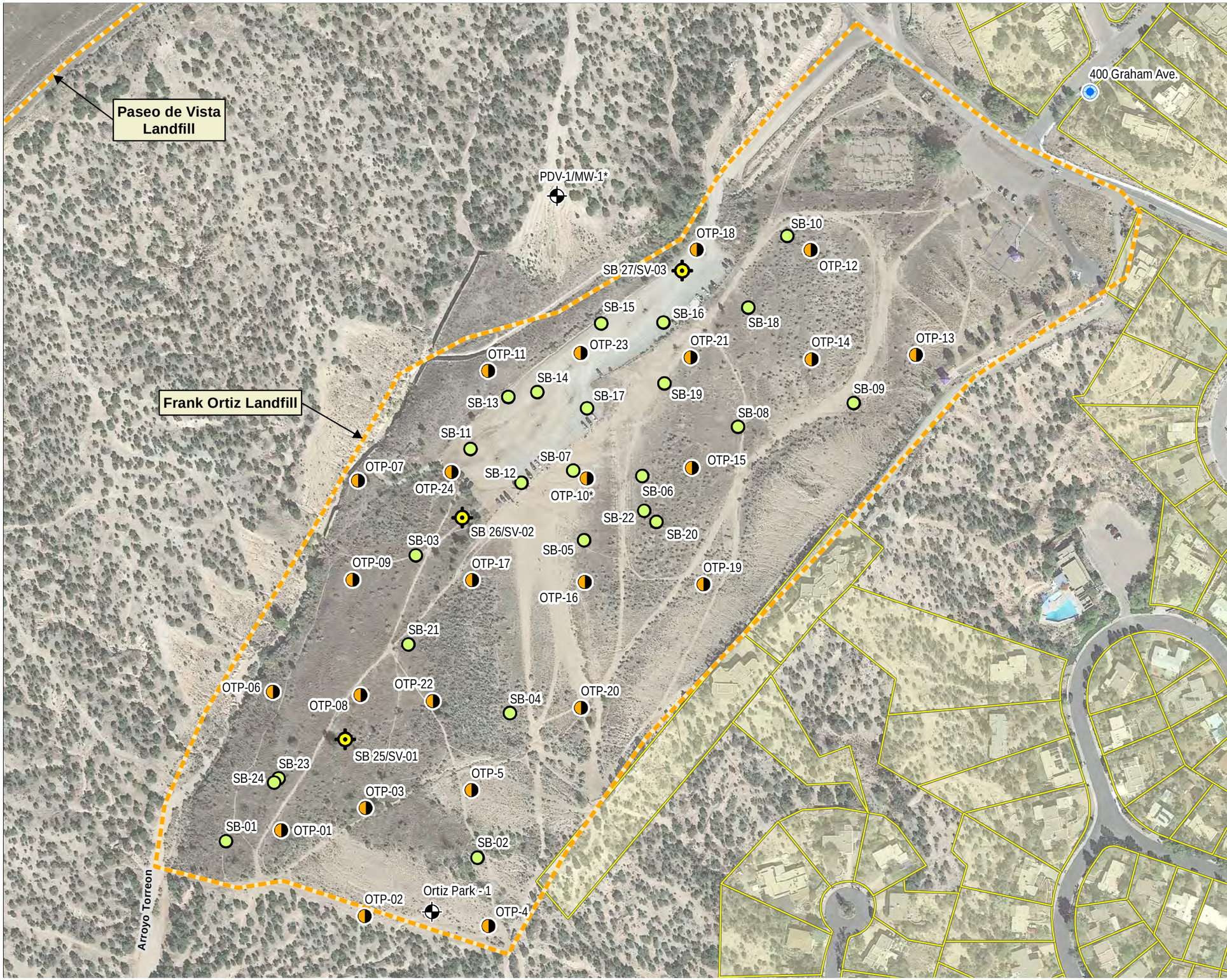

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Sources:
Aerial image - GoogleEarth, 2015;
Wells - Wayjohn Surveying, 2017;
Edge of buried waste – Sunbelt Geophysics, 2015, Aerial Image Analysis and Geophysical Investigation;
Parcel boundaries – SF County Assessors Office, dated 2009.

Legend

- Groundwater Monitoring Well
- Soil Vapor Well
- Domestic Supply Well
- Soil Boring
- Test Pit
- Park Boundary
- Residential Parcel

* = Well was plugged and abandoned

Figure 2
Sampling Locations
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

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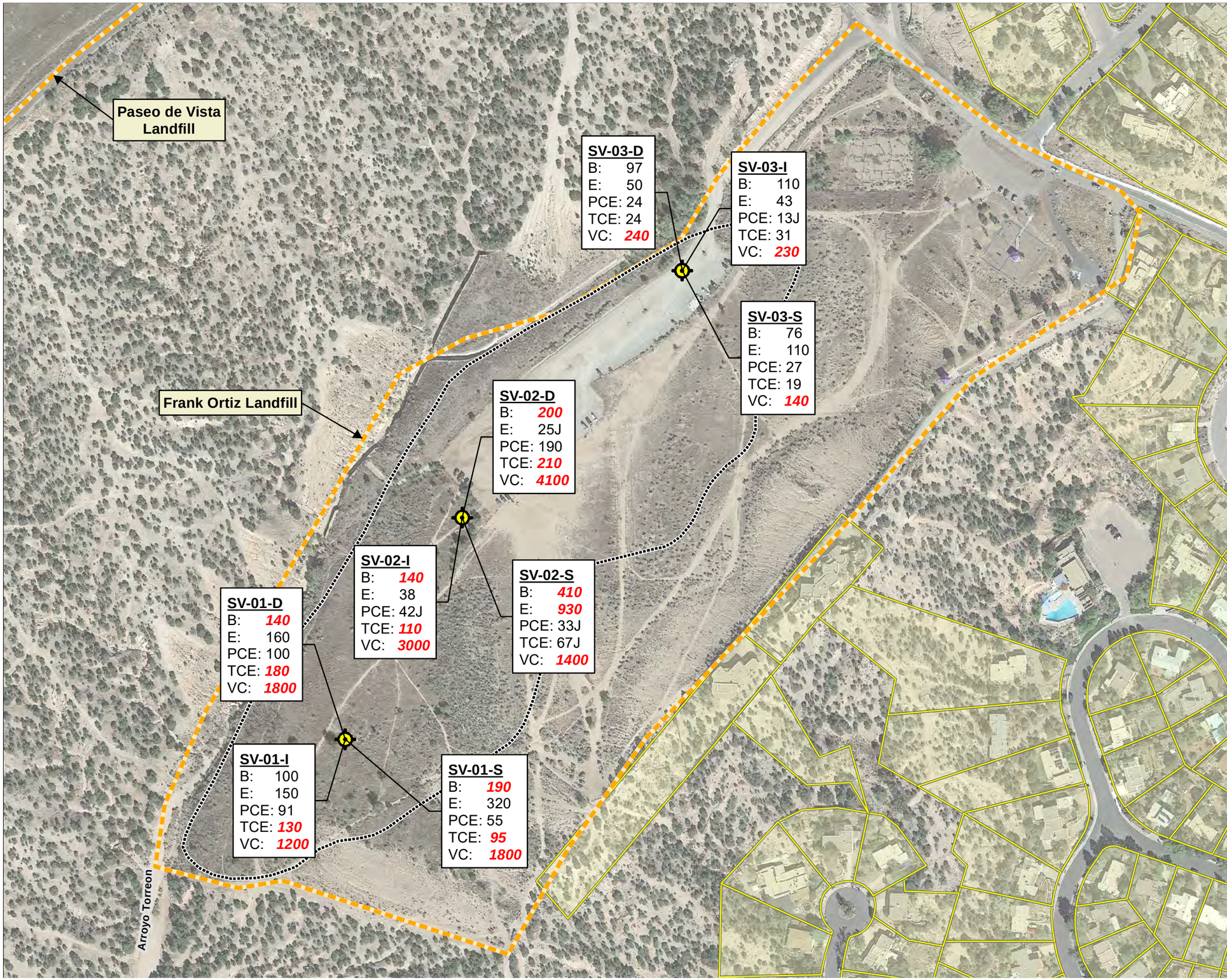

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Sources:
Aerial image - GoogleEarth, 2015;
Wells - Wayjohn Surveying, 2017;
Parcel boundaries – SF County Assessors Office, dated 2009.

Legend

- Soil Vapor Well
- Fill Area Boundary
- Park Boundary
- Residential Parcel

Well ID (S = shallow, I = intermediate, D = deep)
Contaminant result in µg/m^3
(micrograms per cubic meter)
Bold/Italic/Red indicates
value in excess of the NMED
Vapor Intrusion Screening Levels (VISLs).

B = Benzene
E = Ethylbenzene
PCE = Tetrachloroethene
TCE = Trichloroethene
VC = Vinyl Chloride

J= Estimated value

Figure 3
Soil Vapor Sampling Results,
July 13 & 14, 2017
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

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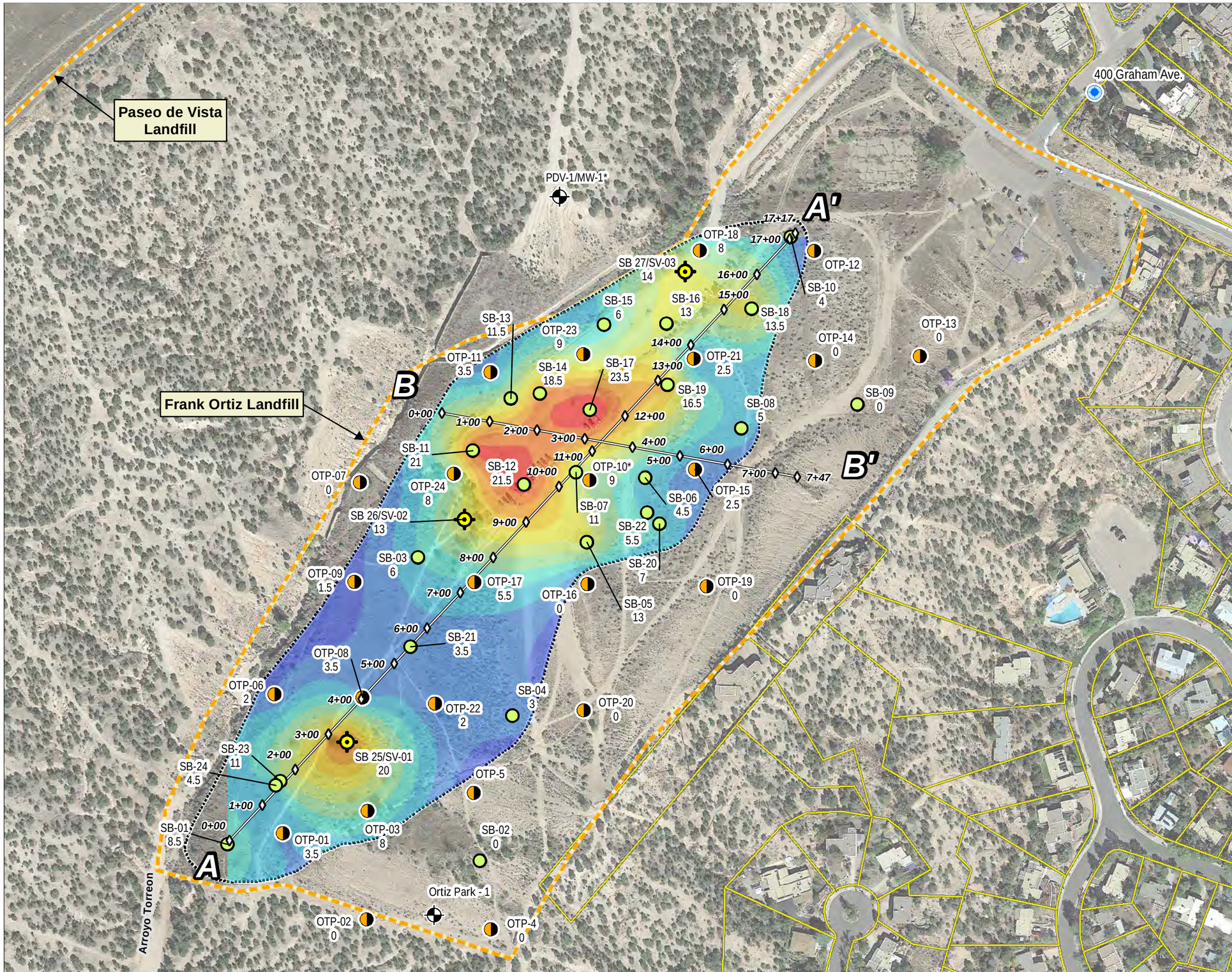

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Feet

Sources:
Aerial image - GoogleEarth, 2015;
Wells - Wayjohn Surveying, 2017;
Parcel boundaries – SF County Assessors Office, dated 2009.

- Groundwater Monitoring Well
- Soil Vapor Well
- Domestic Supply Well
- Soil Boring ID with Waste Thickness (ft)
- Test Pit ID with Waste Thickness (ft)
- Cross Section Station
- Cross Section Location (see Figures 7 & 8)
- Fill Area Boundary
- Park Boundary
- Residential Parcel

Estimated Waste Thickness (feet)

- 1 - 2
- 3 - 4
- 5 - 6
- 7 - 8
- 9 - 10
- 11 - 12
- 13 - 14
- 15 - 16
- 17 - 18
- 19 - 20
- 21 - 24

* = Well was plugged and abandoned

Figure 4
Waste Thickness
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

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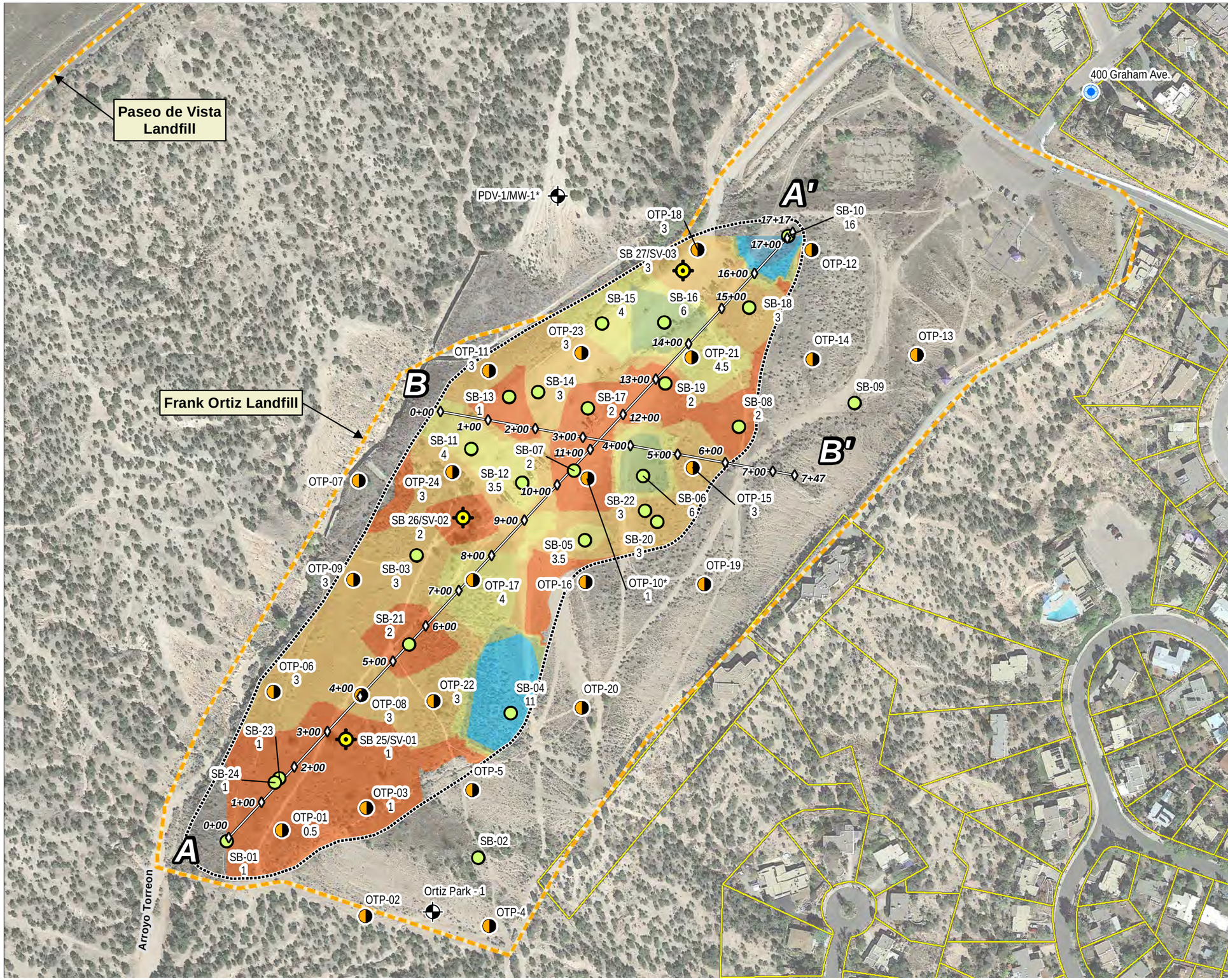

INTERA

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Feet

Sources:
Aerial image - GoogleEarth, 2015;
Wells - Wayjohn Surveying, 2017;
Parcel boundaries – SF County Assessors Office, dated 2009.

Legend

- Groundwater Monitoring Well
- Soil Vapor Well
- Domestic Supply Well
- Soil Boring ID with Cover Thickness (ft)
- Test Pit ID with Cover Thickness (ft)
- Cross Section Station
- Cross Section Location (see Figures 7 & 8)
- Fill Area Boundary
- Landfill Boundary
- Residential Parcel

Estimated Cover Thickness (feet)

- 0.5-2
- 2.1-3
- 3.1-4
- 4.1-5
- 5.1-11
- 11.1-16

* = Well was plugged and abandoned

Figure 5
Cover Thickness
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

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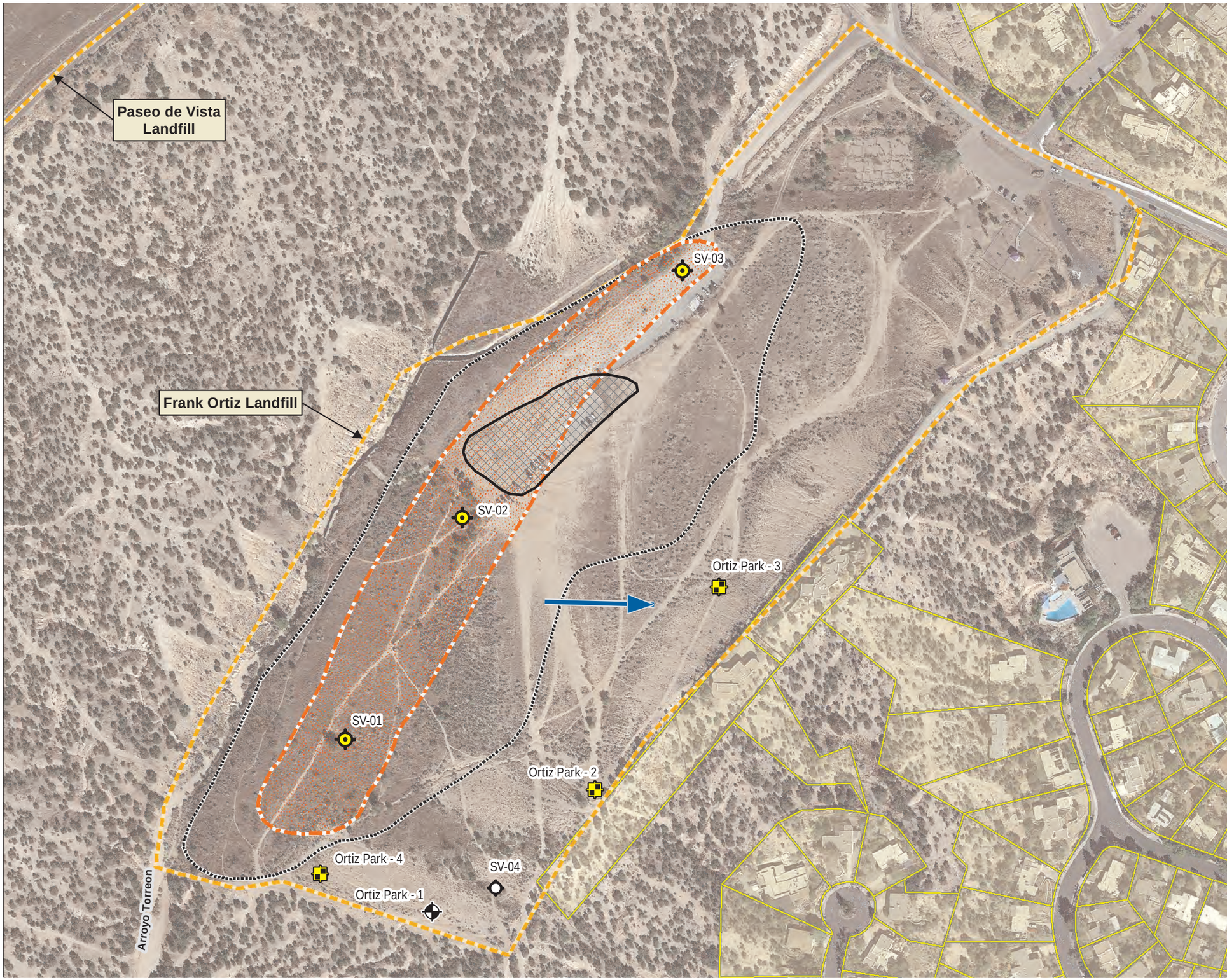

INTERA

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Feet

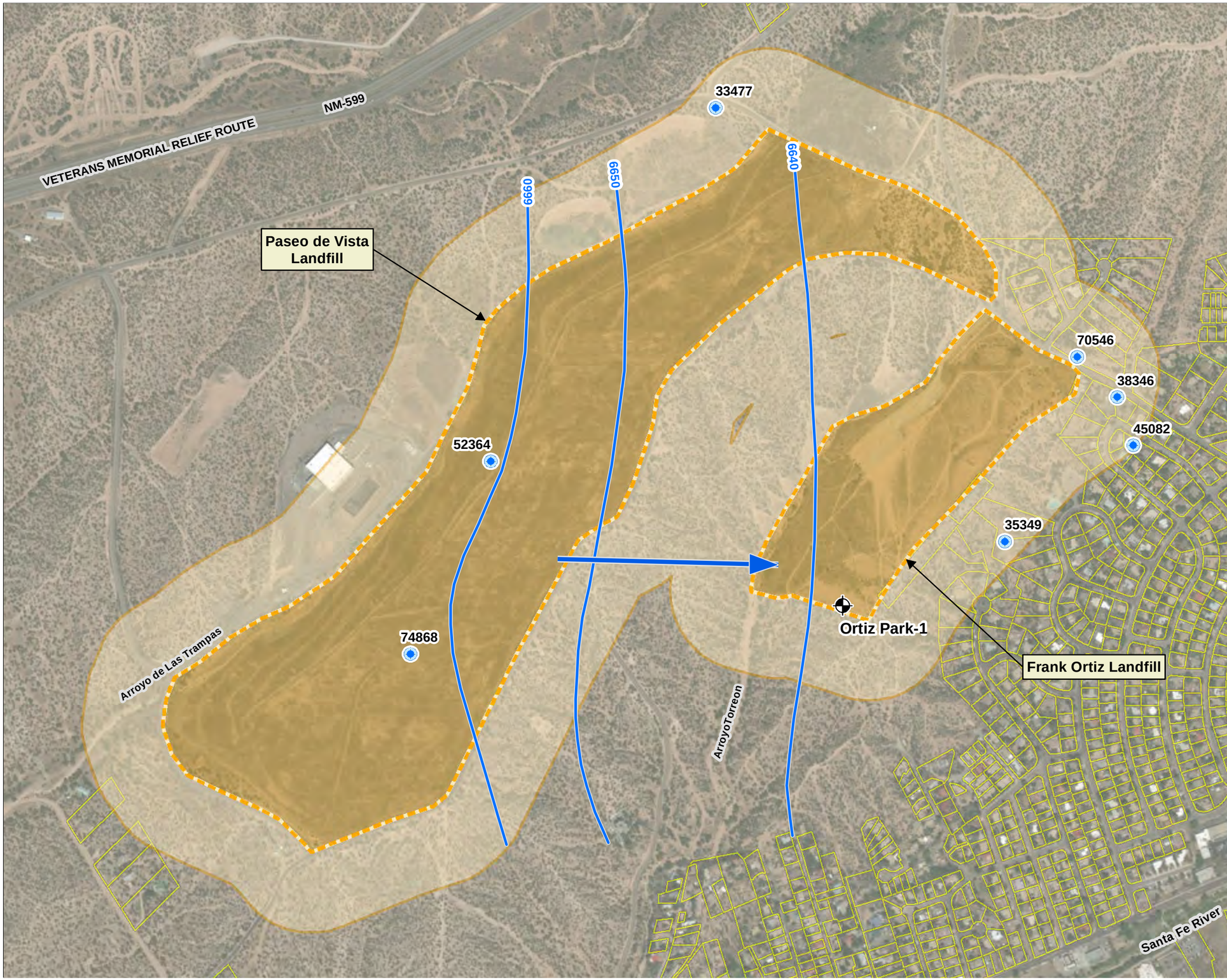
Sources:
Aerial image - GoogleEarth, 2015;
Wells - Wayjohn Surveying, 2017;
Parcel boundaries – SF County Assessors Office, dated 2009.

Legend

- Groundwater Monitoring Well
- Soil Vapor Well
- Proposed Dual Purpose Soil Vapor /Groundwater Monitoring Well
- Proposed Soil Vapor Well
- Estimated Groundwater Flow Direction, October 2017
- Buried Waste Thickness Approximately >20 feet
- Estimated Elevated Soil Vapor VOC Concentrations
- Fill Area Boundary
- Park Boundary
- Residential Parcel

Figure 6a
Updated CSM and Proposed Monitoring Well Locations
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

FILE: S:\ABQ\COSFE_C001_ORTIZ\Graphics\GIS\MapDocs\201708_Phase2_ESA\06a_UpdatedCSMv2.mxd 6/27/2018



INTERA

N

600 0 600
Feet

Sources:
Aerial image – ESRI online, dated 2016;
Monitoring wells – Wayjohn Surveying, 2017;
GW contours – SMA, 2017;
Water wells – OSE online, January 2018;
Parcel boundaries – SF County Assessors Office, dated 2009.

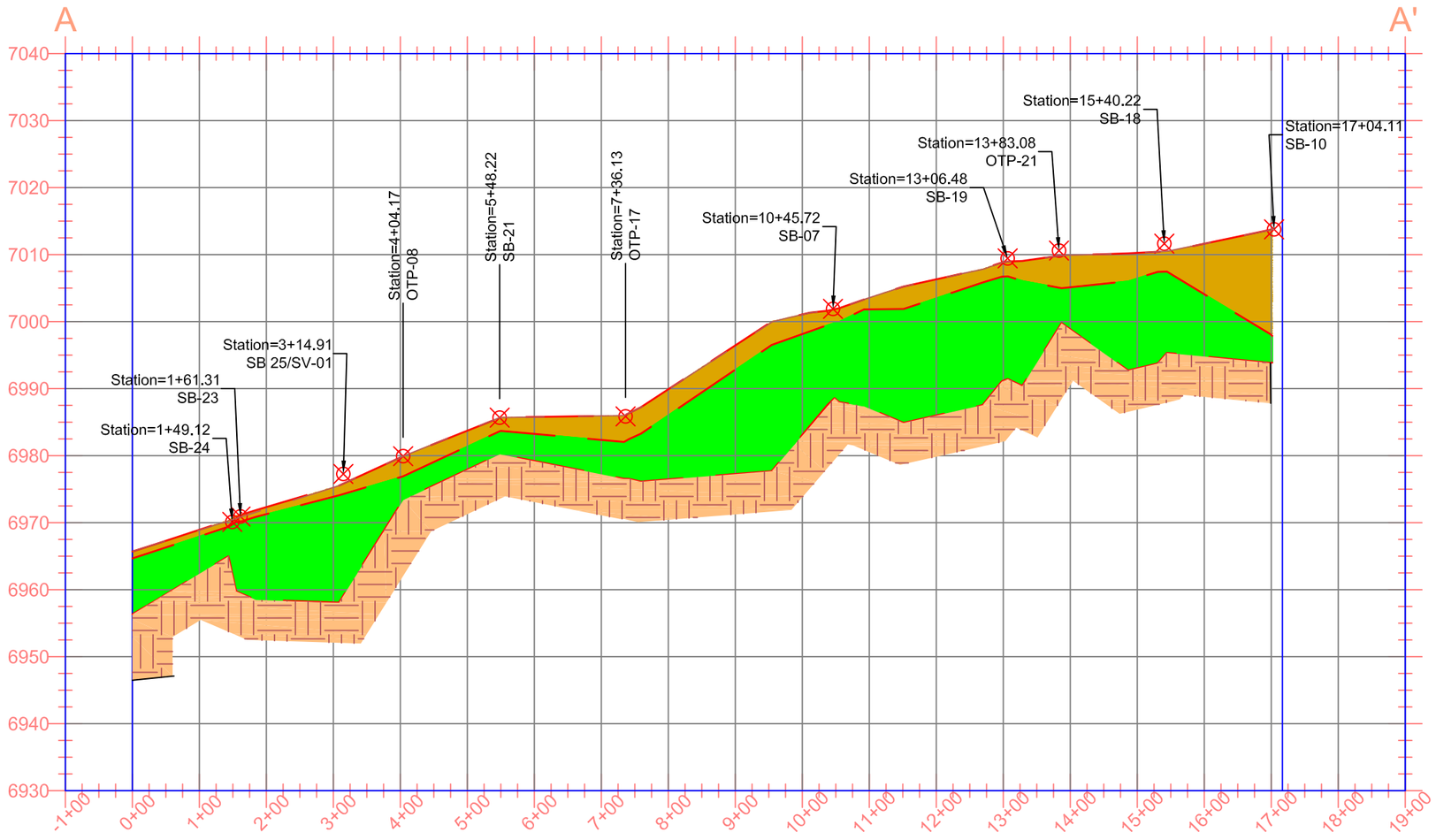
Legend

- Groundwater Monitoring Well
- OSE Well (POD Number)
- Landfill Boundary
- Landfill 500-ft Buffer
- Residential Parcel
- Potentiometric Surface Contour (October 11, 2017)
- Estimated Groundwater Flow Direction, October 2017

Figure 6b
Area Landfills and Potentiometric Surface Map, October 11, 2017
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

FILE: S:\ABQ\COSFE_C001_ORTIZ\Graphics\GIS\MapDocs\201708_Phase2_ESA\06b_LandfillsPotMap.mxd 2/9/2018

INTERA Inc.
6000 Uptown Blv., NE
Suite 220
Albuquerque, NM 87110



LEGEND

- COVER FILL
- WASTE FILL
- NATIVE SUBGRADE
- EXISTING GRADE
- TEST PIT/SOIL BORING LOCATION

NOTES

1) SOIL BORING AND TEST PIT LOCATIONS ARE PROJECTED

2) SEE FIGURES 4 AND 5 FOR CROSS SECTION LOCATION

3) SEE SECTION 3 AND APPENDIX B FOR DETAILED DESCRIPTIONS OF THE COVER AND WASTE FILLS

Figure 7
LANDFILL CROSS-SECTION A-A'
FORMER FRANK ORTIZ LANDFILL
PHASE II ENVIRONMENTAL SITE ASSESSMENT

S:\ABQ\COSFE_C001_ORTIZ\Graphics\Autocad\Waste Surface9-8-17.dwg

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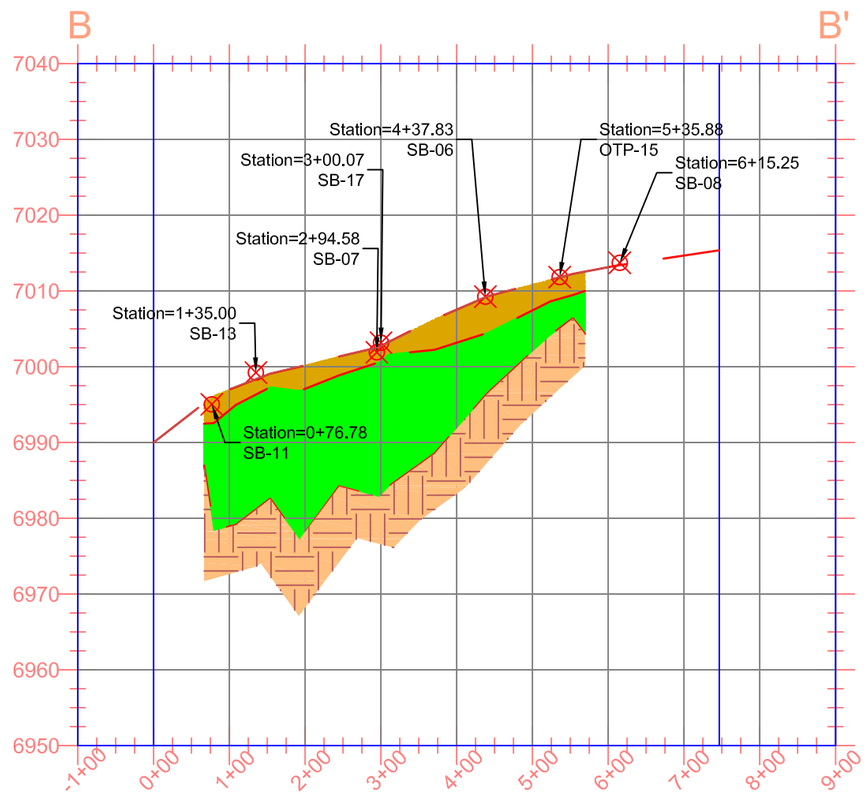
6000 Uptown Blv., NE
Suite 220
Albuquerque, NM 87110



LEGEND

- COVER FILL
- WASTE FILL
- NATIVE SUBGRADE
- EXISTING GRADE
- TEST PIT/SOIL BORING LOCATION

NOTES

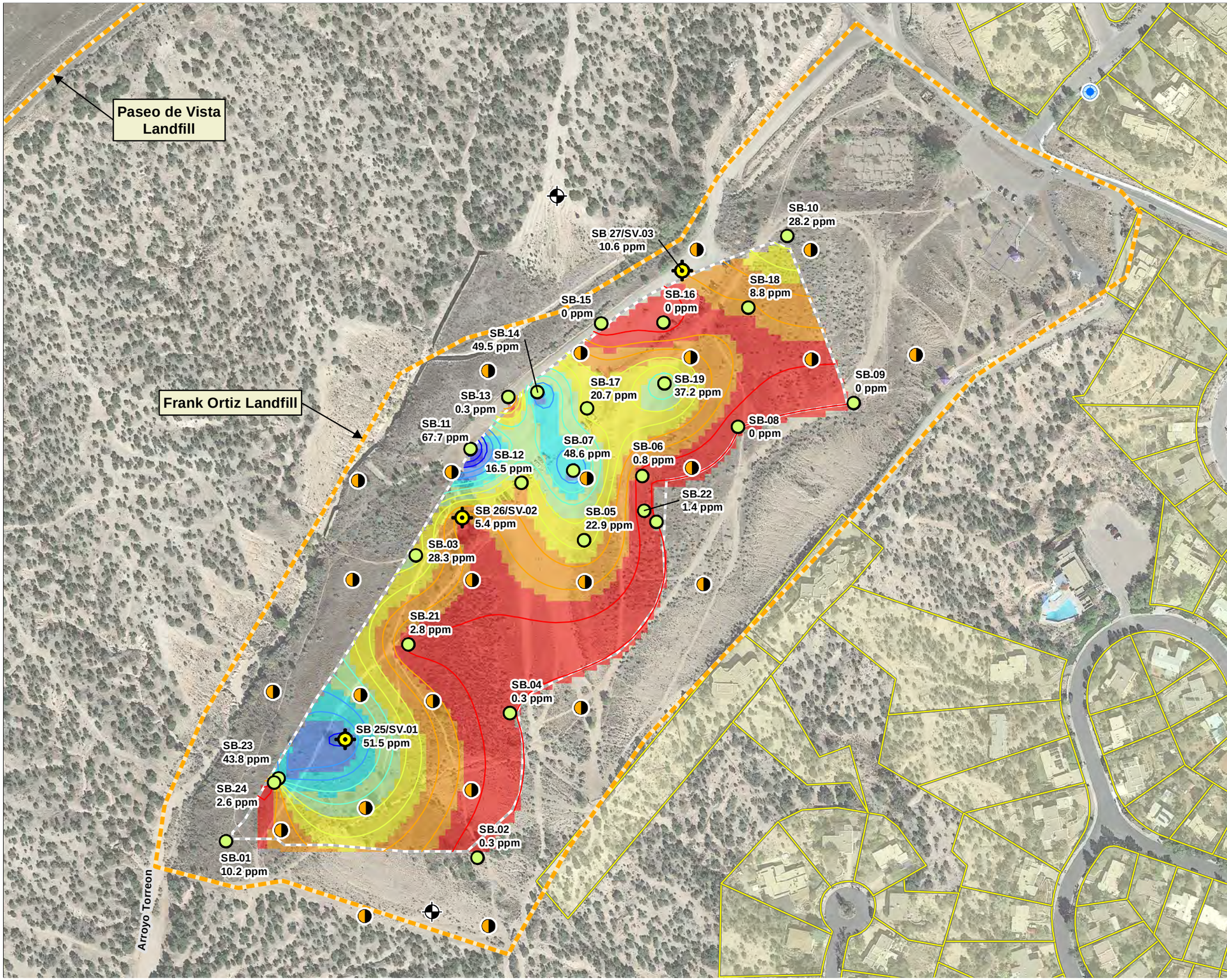
1) SOIL BORING AND TEST PIT LOCATIONS ARE PROJECTED

2) SEE FIGURES 4 AND 5 FOR CROSS SECTION LOCATION

3) SEE SECTION 3 AND APPENDIX B FOR DETAILED DESCRIPTIONS OF THE COVER AND WASTE FILLS

Figure 8
LANDFILL CROSS-SECTION B-B'
FORMER FRANK ORTIZ LANDFILL
PHASE II ENVIRONMENTAL SITE ASSESSMENT

S:\ABQ\COSFE_C001_ORTIZ\Graphics\Autocad\Waste Surface9-8-17.dwg



INTERA

N

200 100 0 200
Feet

Sources:
Aerial image - GoogleEarth, 2015;
Wells - Wayjohn Surveying, 2017;
Edge of buried waste – Sunbelt Geophysics, 2015, Aerial Image Analysis and Geophysical Investigation;
Parcel boundaries – SF County Assessors Office, dated 2009.

Legend

- Groundwater Monitoring Well
- Soil Vapor Well
- Domestic Supply Well
- Soil Boring
- Test Pit
- PID Maximum Concentration Boundary (Inferred)
- Park Boundary
- Residential Parcel

Max PID (ppm)

- 0-10
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70

Notes:
* = Well was plugged and abandoned. No PID measurements were collected during Test Pit excavation.

Figure 9
Maximum PID Measurements
Phase II Environmental Site Assessment,
Frank Ortiz Landfill,
Santa Fe, Santa Fe County, New Mexico

FILE: S:\ABQ\COSFE_C001_ORTIZ\Graphics\GIS\MapDocs\201708_Phase2_ESA\09_PID-Max.mxd 2/9/2018

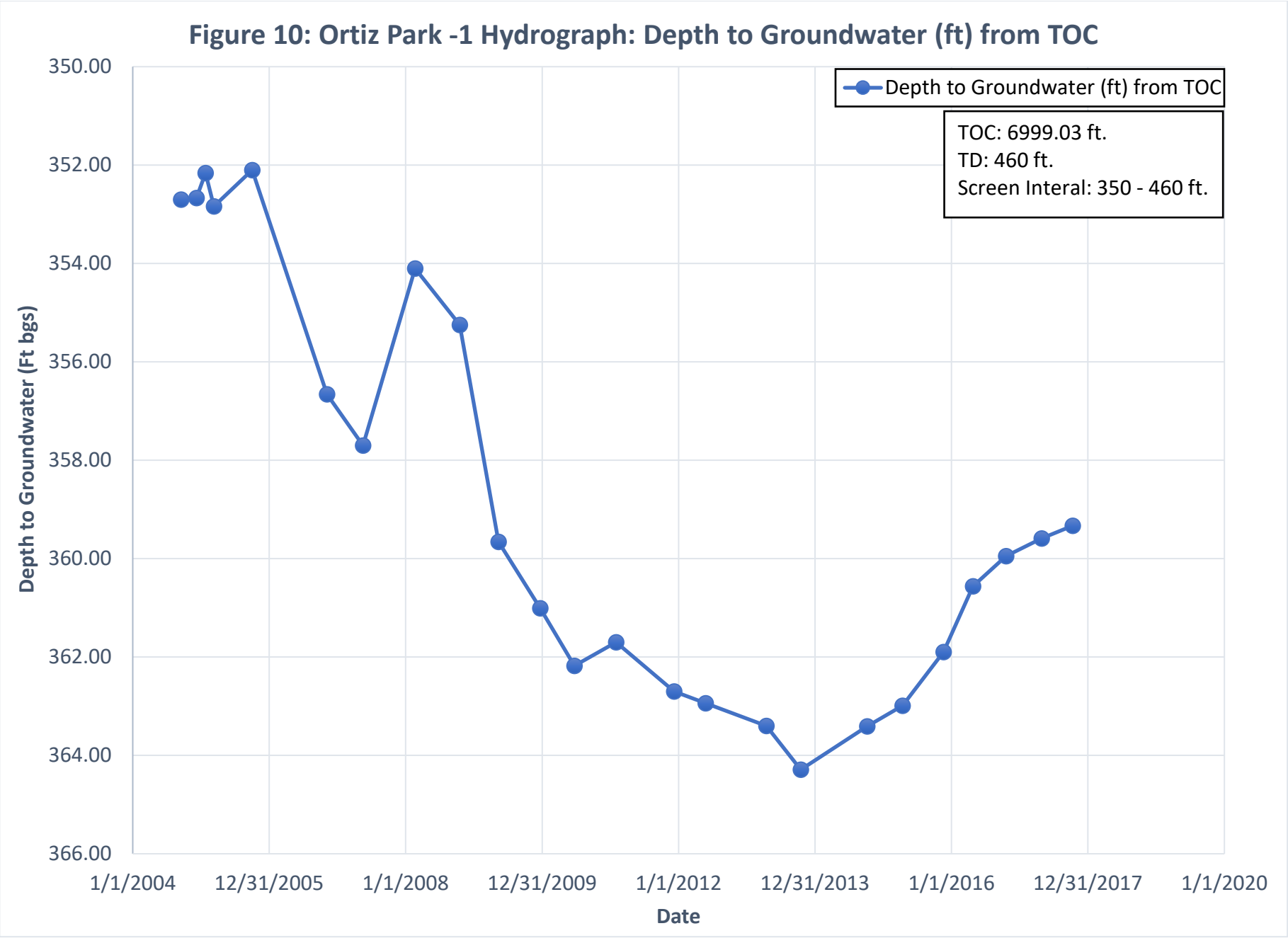


Figure 10: Ortiz Park -1 Hydrograph: Depth to Groundwater (ft) from TOC
Depth to Groundwater (ft) from TOC
TOC: 6999.03 ft.
TD: 460 ft.
Screen Interal: 350 - 460 ft.
Depth to Groundwater (Ft bgs)
350.00
352.00
354.00
356.00
358.00
360.00
362.00
364.00
366.00
1/1/2004
12/31/2005
1/1/2008
12/31/2009
1/1/2012
12/31/2013
1/1/2016
12/31/2017
1/1/2020
Date

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TABLES

TABLE 1
Summary of Headspace Readings
Phase II Environmental Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

Soil Boring ID	Date	Soil Boring Total Depth (feet bgs)	Sample Depth (feet bgs)	PID Headspace Value (ppm)	Laboratory Sample Submitted
Reference Elevation					
SB-01	06/26/17	22	11-12	0.0	
			16-17	0.0	
			21-22	10.2	
SB-02	06/26/17	22	11-12	0.0	
			21-22	0.3	
SB-03	06/26/17	22	11-12	28.3	
			21-22	5.1	
SB-04	06/26/17	21	11-12	0.3	
			16-17	0.0	
			20-21	0.0	
SB-05	06/26/17	22	11-12	22.9	
			16.5-17	1.3	
SB-06	06/26/17	21	10.5-11	0.0	
			15.5-16	0.8	
			20-21	0.3	
SB-07	06/27/17	21	15.5-16	48.6	
			20.5-21	18.9	
SB-08	06/27/17	11	10.5-11	0.0	
SB-09	06/27/17	11	5.5-6	0.0	
			10.5-11	0.0	
SB-10	06/27/17	27	5.5-6	28.2	
			21.5-22	15.2	
SB-11	06/27/17	29	26.5-27	67.7	
SB-12	06/27/17	29	26.5-27	16.5	
			27.5-28	12.6	
SB-13	06/28/17	17	16.5-17	0.3	
SB-14	06/28/17	24	21.5-22	49.5	
			22.5-23	10.2	
SB-15	06/28/17	12	11-12	0.0	
SB-16	06/28/17	22	21-22	0.0	
SB-17	06/28/17	30	24.5-25	20.7	
			25-27	6.8	
			27-29	1.1	
SB-18	06/28/17	18	15-17	8.8	

TABLE 1
Summary of Headspace Readings
Phase II Environmental Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

Soil Boring ID	Date	Soil Boring Total Depth (feet bgs)	Sample Depth (feet bgs)	PID Headspace Value (ppm)	Laboratory Sample Submitted
SB-19	06/29/17	28	16-17	15.4	
			18.5-19	37.2	X
			19-21	11.2	X
			21-23	3.5	
			23-25	1.8	
			25-27	6.2	
			27-29	1.8	X
SB-21	06/29/17	12	5-7	0.0	X
			7-9	0.0	
			9-11	2.8	
			11-13	2.3	X
SB-22	06/29/17	12	7-9	1.3	
			9-11	1.4	X
			11-13	0.4	X
SB-23	06/29/17	13	9-11	43.8	
SB-24	06/30/17	15	5-7	1.0	
			7-9	2.6	X
			11-13	1.5	
			13-15	1.0	X
SB-25	06/30/17	47	15-17	33.3	
			17-19	22.6	
			21-23	7.5	X
			30-32	3.9	
			35-37	20.4	
			40-42	51.5	X
			45-47	24.6	
SB-26	07/05/17	41	15-17	3.1	X
			30-32	5.4	
			35-37	4.6	
			40-41	1.9	X
SB-27	07/06/17	43	15-17	3.3	
			17-19	0.0	X
			25-27	0.0	
			30-32	0.0	
			35-37	10.6	X
			40-42	0.0	

Notes:
PID Headspace values above 100 ppm are in **bold**.
bgs = below ground surface
PID = photoionization detector
ppm = parts per million
X = soil sample submitted for laboratory analysis

TABLE 2
Laboratory Analytical Results - Soil Boring Samples
Phase II Environmental Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

				Inorganics/Soil Metals[1]												Nitrogen Species, Anions[2]				Semivolatiles[3]
Soil Boring ID	Collection Date	Sample Depth (ft bgs)	PID (ppm)	Aluminum	Arsenic	Barium	Boron	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Nickel	Zinc	Nitrogen, Total Kjeldahl	Nitrogen, Nitrite	Nitrogen, Nitrate	Nitrogen, Ammonia	Diethyl phthalate
				Concentration (mg/kg)																
SSLs[a]	Residential Soil			78000	7.07	15600	15600	96.6	23.4	3130	54800	NE	10500	1560	23500	NE	7820	125000	NE	49300
	Industrial/Occupational			1290000	35.9	255000	259000	505	388	51900	908000	NE	160000	25700	389000	NE	130000	2080000	NE	733000
	Construction Worker			41400	41.2	4390	51400	134	36.7	14200	248000	NE	464	753	106000	NE	35400	566000	NE	215000
	DAF of 1			29900	0.025	135	12.5	10300	0.27	27.8	348	NE	131	24.2	371	NE	1.33	21.3	NE	4.89
OLF-SB-17	06/28/17	25-27	6.8	6500	<12	130	<9.6	5.7	3.3	11	6600	4.1	460	8.0	16	<50	<0.30	<0.30	<25	<0.20
OLF-SB-17	06/28/17	27-29	1.1	3100	<2.5	28	<2.0	2.5	1.1	3.0	4000	1.2	130	2.9	6.6	70	<0.30	<0.30	<25	0.26
OLF-SB-19	06/29/17	18.5-21	37.2	4200	<2.5	43	2.8	3.6	1.9	4.5	6500	1.6	400	3.3	7.4	190	<0.30	<0.30	91	<0.20
OLF-SB-119 (Duplicate)	06/29/17	18.5-21	37.2	2200	<2.5	20	<2.0	1.3	0.97	2.0	3500	0.47	140	1.5	4.0	200	<0.30	<0.30	77	<0.20
OLF-SB-19	06/29/17	27-28	1.8	2100	<2.4	60	<1.9	1.9	1.0	1.6	3800	1.7	140	1.5	4.7	<50	<0.30	<0.30	<25	<0.39
OLF-SB-21	06/29/17	5-7	0.0	2800	<2.5	26	<2.0	2.2	1.3	2.4	4000	1.5	150	2.1	7.3	<50	<0.30	5.3	<25	0.22
OLF-SB-21	06/29/17	11-13	2.3	3600	<12	42	<9.9	2.9	1.8	2.6	4700	2.4	240	2.6	<12	<49	<0.30	5.5	<25	<0.20
OLF-SB-22	06/29/17	9-11	1.4	3500	3.1	45	<1.9	3.2	1.5	320	5200	2.2	240	2.9	7.9	55	0.94	0.42	70	<0.20
OLF-SB-22	06/29/17	11-13	0.4	3200	5.2	33	<1.9	2.2	1.5	3.9	5700	2.4	170	2.1	7.9	82	1.4	<0.30	70	<0.20
OLF-SB-24	06/30/17	7-9	2.6	4200	<12	140	<9.6	2.6	2.0	3.4	4400	2.9	220	3.4	<12	150	2.7	37	35	<0.20
OLF-SB-24	06/30/17	13-15	1.0	4300	<12	43	<9.9	3.1	1.6	3.4	4300	1.2	160	3.0	<12	55	<0.30	<0.30	42	<0.20
OLF-SB-25	06/30/17	21-23	7.5	5200	<12	66	<9.9	4.3	2.1	3.5	5400	<1.2	170	3.3	<12	<48	<0.30	<0.30	<25	<0.20
OLF-SB-25	06/30/17	40-42	51.5	4300	<12	57	<10	2.3	<1.5	3.0	4200	1.5	300	2.5	<12	<48	<0.30	<0.30	<25	<0.19
OLF-SB-26	07/05/17	15-17	3.1	3700	<2.4	35	3.8	2.2	1.2	2.7	4200	1.8	100	2.3	6.2	290	<0.30	<0.30	77	<0.20
OLF-SB-126 (Duplicate)	07/05/17	15-17	3.1	3400	<2.5	46	3.9	2.2	1.5	3.2	4700	1.7	100	2.8	6.9	98	<0.30	<0.30	56	<0.20
OLF-SB-26	07/05/17	40-41	1.9	2700	<12	77	<10	3.5	1.8	3.5	6000	3.3	260	2.9	<12	<49	<0.30	<0.30	<25	0.22
OLF-SB-27	07/06/17	18-19	0.0	1800	<2.5	22	<2.0	1.5	0.8	1.4	2600	1.0	100	1.2	<4.0	70	<0.30	<0.30	<25	<0.20
OLF-SB-27	07/06/17	35-37	10.6	3300	3.9	34	2.7	2.5	1.4	3.1	4500	1.2	110	2.8	9.2	<50	<0.30*	<0.30**	<25	<0.20

Notes:

◦Soil samples were also analyzed for volatiles (EPA Method 8260B) and PCBs (EPA Method 8082), but sample results were below detection limits. See Appendix E.
a = New Mexico Environment Department SSLs (Table A-1 NMED, 2017). If a noncancer and cancer SSL is established the most stringent SSL is reported. Soil sample results were compared to Residential SSLs for exceedances.
1 = Analyzed by EPA Method 6010B
2 = Analyzed by EPA Method 300 and Method 4500-N-ORG C
3 = Analyzed by EPA Method 8270
* = Nitrogen, Nitrite (as N)
** = Nitrogen, Nitrate (as N)

bgs = below ground surface
DAF = dilution attenuation factor
EPA = U.S. Environmental Protection Agency
ft = feet
mg/kg = milligrams per kilogram
NMED = New Mexico Environment Department

OLF-SB = Ortiz Landfill Soil Boring
PID = photoionization detector
ppm = parts per million
RL = reporting detection limit
SSLs = soil screening levels; NMED Risk Assessment Guidance for Investigations and Remediation, March 2017

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TABLE 3
Summary of Soil Borings Waste Intervals
Phase II Environmental Assessment Report
Former Frank Ortiz Landfill, County of Santa fe, Santa Fe, New Mexico

Location	Summary
SB-01	Waste encountered 1 to 9.5 ft bgs, TD-22 ft bgs
SB-02	No waste encountered, TD-22 ft bgs
SB-03	Waste encountered 1.5 to 9 ft bgs, 10-20% waste, TD-22 ft bgs
SB-04	Waste encountered 11 to 14 ft bgs, 20-30% waste, TD-21 ft bgs
SB-05	Waste encountered 3.5 to 16.5 ft bgs, 10-15% waste, TD-21 ft bgs
SB-06	Waste encountered 6 to 10.5 ft bgs, 15-20% waste, TD-21 ft bgs
SB-07	Waste encountered 2 to 13 ft bgs, 50-60% waste, TD-21 ft bgs
SB-08	Waste encountered 2 to 7 ft bgs, TD-11 ft bgs
SB-09	No waste encountered, TD-11 ft bgs
SB-10	Waste encountered 16 to 20 ft bgs, TD-27 ft bgs
SB-11	Waste encountered 4 to 25 ft bgs, 60-70% waste, TD-29 ft bgs
SB-12	Waste encountered 3.5 to 25 ft bgs, 60-70% waste, TD-29 ft bgs
SB-13	Waste encountered 1 to 13 ft bgs, 60-70% waste, TD-17 ft bgs
SB-14	Waste encountered 3 to 21.5 ft bgs, 75-80% waste, TD-24 ft bgs
SB-15	Waste encountered 4 to 10 ft bgs, 15% waste, TD-12 ft bgs
SB-16	Waste encountered 6 to 19.5 ft bgs, 60-70% waste, TD-22 ft bgs
SB-17	Waste encountered 2 to 25 ft bgs, 70-75% waste, TD-30 ft bgs
SB-18	Waste encountered 3 to 15 ft bgs, 30-40% waste, TD-18 ft bgs
SB-19	Waste encountered 2 to 18.5 ft bgs, 60-70% waste, TD-28 ft bgs
SB-20	Waste encountered 3 to 9.5 ft bgs, 30% waste, TD-12.5 ft bgs
SB-21	Waste encountered 2 to 5.5 ft bgs, 10% waste, TD-13 ft bgs
SB-22	Waste encountered 3 to 8.5 ft bgs, 40% waste, TD-12 ft bgs
SB-23	Waste encountered 1 to 12 ft bgs, 30% waste, TD-13 ft bgs
SB-24	Waste encountered 1 to 7 ft bgs, 40% waste, TD-15 ft bgs
SB-25	Waste encountered 1 to 21 ft bgs, 40-50%waste, TD-47 ft bgs
SB-26	Waste encountered 2 to 15 ft bgs, 75% waste, TD-41 ft bgs
SB-27	Waste encountered 3 to 17 ft bgs, 50-60% waste, TD-43 ft bgs

Notes:

ft = foot or feet

bgs = below ground surface

TD = total depth

TABLE 4
Summary of Test Pit Waste Intervals
Phase II Environmental Assessment Report
Former Frank Ortiz Landfill, County of Santa fe, Santa Fe, New Mexico

Location	Summary
OTP-01	Waste encountered 18 inches to 4 ft bgs, 50 % waste, TD-6 ft bgs
OTP-02	No waste encountered, TD-2.5 ft bgs
OTP-3	Waste encountered 1 to 9 ft bgs, 60-70% waste, TD-10 ft bgs
OTP-4	No waste encountered, TD-3 ft bgs
OTP-5	No waste encountered, TD-3 ft bgs
OTP-6	Waste encountered 6 inches to 5 ft bgs, 50% waste, TD-7 ft bgs
OTP-7	Waste encountered 6 inches to 1.5 ft bgs, 10% flagging, TD-6.5 ft bgs
OTP-8	Waste encountered 1 to 5.5 ft bgs, 15-50% waste, TD-6.5 ft bgs
OTP-9	Waste encountered 6 inches to 4.5 ft bgs, 15-50% waste, TD-6.5 ft bgs
OTP-10	Waste encountered 1 to 10 ft bgs, 60-70% waste, TD-10 ft bgs, still in waste
OTP-11	Waste encountered 1 to 5.5 ft bgs, 30-40% waste, TD-6.5 ft bgs
OTP-12	No waste encountered, TD-3 ft bgs
OTP-13	No waste encountered, TD-3 ft bgs
OTP-14	No waste encountered, TD-3 ft bgs
OTP-15	Waste encountered 3 to 5.5 ft bgs, 20-25% waste, TD-7 ft bgs
OTP-16	Fill soil encountered 1 to 6.5 ft bgs, no waste, TD-7 ft bgs
OTP-17	Waste encountered 6 inches to 9.5 ft bgs, 60-70% waste, TD-10.5 ft bgs
OTP-18	Waste encountered 3 to 11 ft bgs, 60-70% waste, TD-11 ft bgs, still in waste
OTP-19	No waste encountered, TD-4 ft bgs
OTP-20	No waste encountered, TD-4 ft bgs
OTP-21	Waste encountered 4 to 7 ft bgs, 30-60% waste, TD-8 ft bgs
OTP-22	Waste encountered 3 to 5 ft bgs, 30-50% waste, TD-6 ft bgs
OTP-23	Waste encountered 2 to 12 ft bgs, 30-70% waste, TD-12 ft bgs, still in waste

Notes:

ft = foot or feet

bgs = below ground surface

TD = total depth

TABLE 5
Laboratory Analytical Results - Soil Vapor Samples
Phase II Environmenttal Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

Sample ID	Collection Date	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3-Butadiene	1,4-Dichlorobenzene	4-Methyl-2-pentanone	Benzene	Carbon Tetrachloride	Chlorobenzene	Chloroform	Cumene	Ethyl Benzene	Hexane	m,p-Xylene	Methylcyclohexane	Methylene Chloride	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
		Concentration (ug/m^3)																												
VISLs	Residential	174000	NE	6.95	585	6950	69.5	NE	6950	36	93.6	31.2	85.1	NE	120	156	1740	40.7	13900	374	24300	3480	104000	20900	34800	1390	174000	2090	69.5	55.9
	Industrial	819000	NE	32.8	2870	32800	328	NE	32800	176	459	153	417	NE	588	765	8190	199	65500	1840	115000	16400	492000	98300	164000	6550	819000	9830	328	1040
SV-01-S	07/13/17	<26	<33	**<26**	<19	12J	**<140**	740	76	<19	32	<10	430	<20	**190**	<30	56	<23	140	320	390	100	730	25J	13J	55	160	78	**95**	**1800**
SV-01-I	07/13/17	12J	<81	**<64**	<48	<46	**<350**	360	70J	**<48**	34J	<26	490	39J	100	<74	29J	25J	68	150	200	83	330	49J	13J	91	74	49	**130**	**1200**
SV-04-I Duplicate	07/13/17	8.8J	<35	**<28**	<21	<20	**<150**	200	39	<21	23J	<11	250	32	91	<32	23J	30	39	120	180	62	330	45J	11J	77	58	61	**120**	**1300**
SV-01-D	07/13/17	<40	<50	**<40**	<29	<29	**<220**	180	31J	20J	30J	<16	250	95	**140**	<46	32J	<35	59	160	250	78	450	63J	22J	100	80	86	**180**	**1800**
SV-02-S	07/13/17	<73	<92	**<73**	<54	36J	**<400**	640	<80	**<54**	<62	<30	310	<55	**410**	<84	<62	**<65**	200	**930**	240	480	390	54J	<57	33J	340	250	67J	**1400**
SV-02-I	07/13/17	<35	<44	**<35**	13J	13J	**<190**	120	<38	<26	30	<14	43	<26	**140**	<40	<29	<31	28J	38	290	36	370	520	<27	42J	42	130	**110**	**3000**
SV-02-D	07/14/17	<63	<80	**<63**	27J	<46	**<340**	190	<70	**<47**	54	<26	84	<48	**200**	<73	<53	**<57**	46J	25J	490	61	610	830	<49	190	65	190	**210**	**4100**
SV-03-S	07/13/17	0.24J	<0.66	<0.53	2.0	8.2	<18	160	4.1	0.5	2.2	5.7	87	<2.0	76	<3.0	9.6	17	<2.4	110	120	78	190	20	13	27	50	42	19	**140**
SV-03-I	07/13/17	<19	<24	**<19**	<14	14	**<100**	27	7.7J	<14	<16	<7.7	100	<14	110	<22	10J	<17	20	43	110	31	230	17J	4.5J	13J	22	65	31	**230**
SV-03-D	07/13/17	<10	<12	**<10**	3.8J	13	<54	42	3.6J	<7.4	3.4J	<4.0	83	<7.5	97	<11	<8.4	7.1J	<9.0	50	120	41	230	24J	6.1J	24	27	59	24	**240**

Notes:

a = New Mexico Environment Department VISLs (NMED, 2017).
b = Vapor Intrusion screening levels from Table A-3 (NMED, 2017)
1 = Analyzed by EPA Method TO-15 GC/MS Full Scan
NMED = New Mexico Environment Department
EPA = U.S. Environmental Protection Agency
J = Estimated value

ug/m^3 = micrograms per cubic meter
VISLs = vapor intrusion screening levels; NMED Risk Assessment Guidance for Investigations and Remediation, March 2017
BOLD RED results indicate an exceedance of one or more VISLs

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TABLE 6
Relative Percent Difference - Soil Sample Results
Phase II Environmental Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

Soil Boring ID	Date	Aluminum	Arsenic	Barium	Boron	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Nickel	Zinc	Nitrogen, Total Kjeldahl	Nitrogen, Nitrite	Nitrogen, Nitrate	Nitrogen, Ammonia	Diethyl phthalate
OLF-SB-19-18.5-21	6/29/2017	4200	<2.5	43	2.8	3.6	1.9	4.5	6500	1.6	400	3.3	7.4	190	<0.30	<0.30	91	<0.20
	6/29/2017 (dup)	2200	<2.5	20	<2.0	1.3	0.97	2.0	3500	0.47	140	1.5	4.0	200	<0.30	<0.30	77	<0.20
	Relative Percent Difference	**31.3%**	**NC**	**36.5%**	**NC**	**46.9%**	**32.4%**	**38.5%**	**30.0%**	**54.6%**	**48.1%**	**37.5%**	**29.8%**	**2.6%**	**NC**	**NC**	**8.3%**	**NC**
OLF-SB-26-15-17	7/5/2017	3700	<2.4	35	3.8	2.2	1.2	2.7	4200	1.8	100	2.3	6.2	290	<0.30	<0.30	77	<0.20
	7/5/2017 (dup)	3400	<2.5	46	3.9	2.2	1.5	3.2	4700	1.7	100	2.8	6.9	98	<0.30	<0.30	56	<0.20
	Relative Percent Difference	**4.2%**	**NC**	**13.6%**	**###**	**0.0%**	**11.1%**	**8.5%**	**5.6%**	**2.9%**	**0.0%**	**9.8%**	**5.3%**	**49.5%**	**NC**	**NC**	**15.8%**	**NC**

Notes:

NC = not calculated
[1] = Dissolved Metals EPA 6010B
[2] = Total Mercury - EPA 7470
[3] = Alkalinity - SM2320B
[4] = Total Dissolved Solids - SM2540C
[5] = Anions - EPA 300.0

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TABLE 7
Relative Percent Difference - Soil Vapor Results
Phase II Environmental Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

Soil VaporWell ID	Date	1,1,1-Trichloroethane	1,1,2,2-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3-Butadiene	1,4-Dichlorobenzene	4-Methyl-2-pentanone	Benzene	Carbon Tetrachloride
SV-01-I	7/13/2017	12	<81	<64	<48	<46	<350	360	70	<48	34	<26	490	39	100	<74
	7/13/2017 (dup)	8.8	<35	<28	<21	<20	<150	200	39	<21	23	<11	250	32	91	<32
	Relative Percent Difference	**15.4%**	**NC**	**NC**	**NC**	**NC**	**NC**	**28.6%**	**28.4%**	**NC**	**19.3%**	**NC**	**32.4%**	**9.9%**	**4.7%**	**NC**

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TABLE 7
Relative Percent Difference - Soil Vapor Results
Phase II Environmental Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

Soil VaporWell ID	Date	Chlorobenzene	Chloroform	Cumene	Ethyl Benzene	Hexane	m,p-Xylene	Methylcyclohexane	Methylene Chloride	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
SV-01-I	7/13/2017	29	25.00	68	150	200	83	330	49	13	91	74	49	130	1200
	7/13/2017 (dup)	23	30	39	120	180	62	330	45	11	77	58	61	120	1300
	Relative Percent Difference	**11.5%**	**9.1%**	**27.1%**	**11.1%**	**5.3%**	**14.5%**	**0.0%**	**4.3%**	**8.3%**	**8.3%**	**12.1%**	**10.9%**	**4.0%**	**4.0%**

Notes:

NC = not calculated

[1] = Volatile Organic Compounds EPA method TO-15 modified

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

TABLE 8
Geotechnical Cover Soil Testing
Phase II Environmenttal Site Assessment
Former Frank Ortiz Landfill, Santa Fe, New Mexico

Sample ID	Collection Date	Gravimetric (%g/g)	d10 (mm)	d50 (mm)	d60 (mm)	C_u	C_c	Method	ASTM Classification	USDA Classification	% Gravel (>4.75 mm)	% Sand (<4.75 mm, >0.075 mm)	% Silt (<0.075mm, >0.002mm)	% Clay (<0.002mm)	Classification	Measured Optimum Moisture content (% g/g)	Measured Maximum Dry Bulk Density (g/cm^3)	Oversize Corrected Optimum Moisture Content (% g/g)	Oversize Corrected Maximum Dry Bulk Density (g/cm^3)
OLF-CS-22	07/13/17	3.2	0.028	0.48	0.63	23	4.1	WS/H	Silty Sand (SM)	Loamy Sand	5.6	80.3	10.4	3.8	ML	9.1	2.04	8.6	2.07

Notes:

ASTM D2216 - Moisture Content
ASTM D7928, ASTM D2487 - Particle Size Analysis
ASTM D7928, ASTM D6913, ASTM D2487 - USCS (ASTM) Clasification
ASTM D7928, ASTM D6913 - USDA Soil Texture Triangle
ASTM D4318 - Atterberg Limits
ASTM D2488 - Visual-Manual Description
ASTM D1557 - Modified Proctor Compaction
ASTM D4718; Bouwer, H. and Rice, R.C. 1984. Hydraulic Properties of Stony Vadose Zones. Groundwater Vol. 22, No.6 - Coarse Fraction (Gravel) Coprrection (calc)

% g/g - percent gram per gram
d_{10} - Median particle size
$C_u = d_{60}/d_{10}$
$C_c = (d_{30})^2/(d_{10})(d_{60})$
% - percent
mm - millimeters

g/cm^3 - grams per centimeter cubed

Cu = Coefficient of uniformity
Cc = Coefficient of curvature

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GEOSCIENCE & ENGINEERING SOLUTIONS

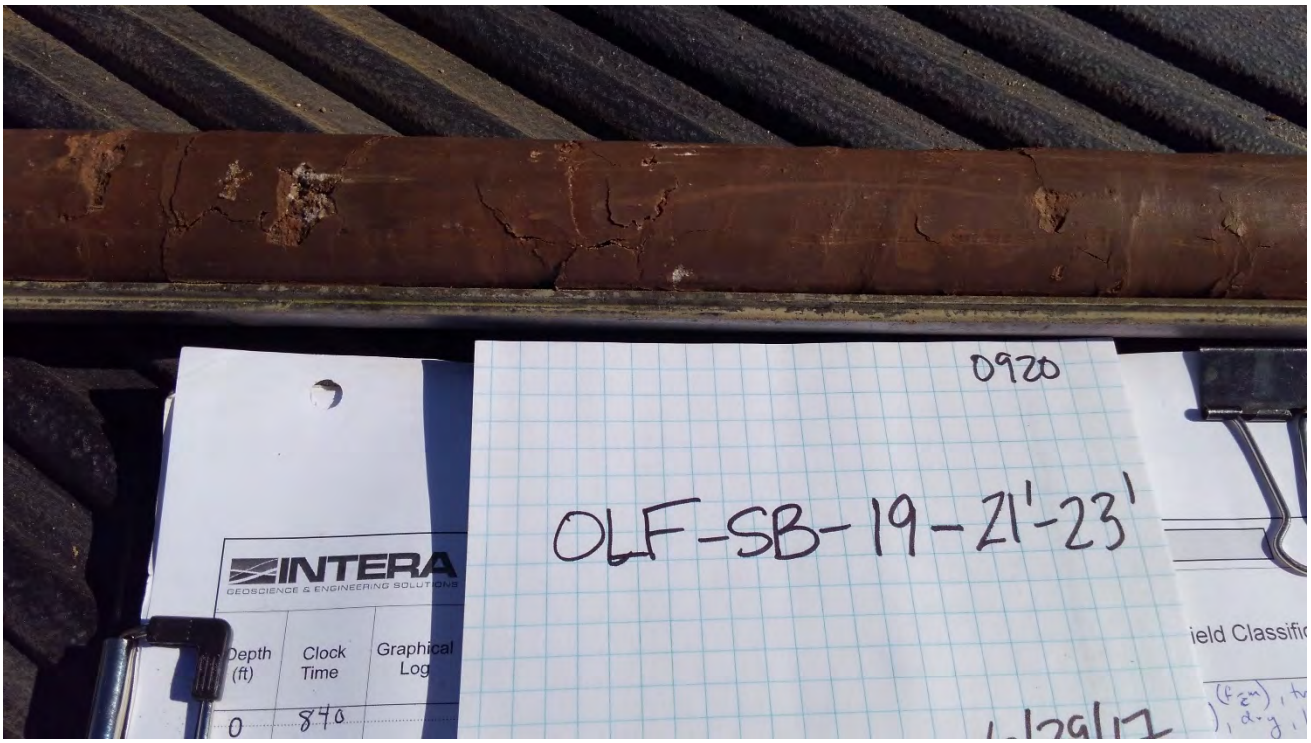
APPENDIX A

Site Photographs

Photograph No. 1 - Hollow stem auger drill rig set up and drilling on Soil Boring 02 at City of Santa Fe Frank Ortiz Landfill.

Photograph No. 2 - Split Spoon sampler showing material collected from 14 to 16 feet below ground surface at Soil Boring 07. This material included soil and waste.

Photograph No. 3 - Hollow Stem auger drill rig set up on Soil Boring 11 with soil cuttings and waste material staged on plastic.



Photograph No. 4 - Split spoon sampler from Soil Boring 19, depth 21 to 23 feet below ground surface, showing native material collected below base of landfill.

Photograph No. 5 - Drill rig set up on Soil Boring 26/Soil Vapor Extraction Well 02 advancing augers to a total depth of 41 feet below ground surface.

Photograph No. 6 - Drill rig set up on Soil Boring 27/Soil Vapor Extraction Well 03 installing screen and casing for nested well.

Photograph No. 7 - INTERA personnel measuring total depth of Test Pit 01. Waste material is observable in the test pit walls.

Photograph No. 8 - Waste material exposed in the sidewalls of test pit during trenching activities at Test Pit 08.

Photograph No. 9 - Back hoe excavator and dump truck set up on Test Pit 09 with excavated soil and waste staged on plastic.

Photograph No. 10 - INTERA personnel collecting soil gas readings in waste material during excavation of Test Pit 10.

Photograph No. 11 - Test Pit 17 showing waste material in the 4 to 9.5 feet below ground surface interval. Total depth of this test pit is 10.5 feet below ground surface.

Photograph No. 12 - INTERA personnel measuring total depth of Test Pit 23 at 12 feet below ground surface. Waste debris includes plastic and old tires.

APPENDIX B

Soil Boring Logs and Test Pit Excavation Logs

INTERA

TEST PIT LOG

OTP-1

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	
Santa Fe, NM		Started: 6/12/2017	Enviroworks, LLC.	Total Depth of Test Pit: 6 ft bgs
Logged By: Larry Coons, P.E.		Completed: 6/12/2017		
		Backfilled: 6/12/2017	Elevation:	Groundwater Depth:

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	1115					Cover fill	Sand; well-graded silty fine, rounded cobbles to 3" diameter; minor debris; light brown, slightly moist			
2						Waste	Waste/waste fill, ~50% waste, 50% fill; tires @ 18"; plastic bags, scrap metal, household waste (soap bottle, glass bottle)			
3										
4										
5							Sand; fine to coarse; minor gravel to 3/4"; pinkish white; moist			
6	1130					TD = 6'				
7										
8										
9										
10										
11										
12										
13										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/12/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	SW corner
COORDINATES	35.694 , -105.968

INTERA

TEST PIT LOG

OTP-2

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/12/2017		Enviroworks, LLC.	2.5 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/12/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/12/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
						Upper 2"	Surface: Fill; sand, very fine to gravel; cobbles (4"dia)			
1	1220									
							Sand; fine to coarse with gravel to 1"; well-graded; pinkish white; dry; grass/tree roots to 18"			
2	1226									
3						**TD = 2.5'**				
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/12/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	SW corner
COORDINATES	35.693 , -105.968

INTERA

TEST PIT LOG

OTP-3

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM		Started: 6/12/2017	Enviroworks, LLC.	10 ft bgs
Logged By: Larry Coons, P.E.		Completed: 6/12/2017		
		Backfilled: 6/12/2017	Elevation:	Groundwater Depth:

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	1402					Cover fill	Sand; well-graded sand; light vegetation; debris in fill sand (plastic bag, carpet, rag)			
2						Waste	Waste Fill ~60-70% Debris 30-40% soil fill; household waste (bottle, plastic, carpet); metal (sheet); minor car parts crushed empty metal drums			
3										
4										
5										
6										
7										
8										
9										
10	1430						Sand; fine to medium, light brown, moist			
11						TD = 10'				
12										
13										
14										
15										
16										
17										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/12/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Southern LF
COORDINATES	35.694 , -105.967

INTERA

TEST PIT LOG

OTP-4

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/12/2017		Enviroworks, LLC.	3 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/12/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/12/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	1508						Sand, well-graded, river cobbles to 5" diameter; sparse vegetation			
2							Sand; fine to medium, minor gravel to 1"; light reddish tan, slightly moist to moist			
3						**TD = 3'**				
4										
5										
6										
7										
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/12/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Southern LF
COORDINATES	35.693 , -105.967

INTERA

TEST PIT LOG

OTP-5

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/12/2017		Enviroworks, LLC.	3 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/12/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/12/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1							Sand; well-graded, fine to very coarse, minor gravel to 1"; sparse, re-seeded grass vegetation			
2							Sand ;medium to coarse, minor gravel to 2" diameter, medium reddish tan, slightly moist to moist			
3						TD = 3'				
4										
5										
6										
7										
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/12/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Southern LF
COORDINATES	35.694 , -105.967

INTERA

TEST PIT LOG

OTP-6

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/13/2017		Enviroworks, LLC.	7 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/13/2017			
	Backfilled: 6/13/2017		Elevation:	Groundwater Depth:

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	905					Cover fill	Sand; well-graded with rounded cobbles; medium vegetation.			
2						Waste Fill/Waste	Debris with fill at ~6" bgs (plastic, cable, sheet metal, CMU block, glass); ~15% waste, 85% fill			
3										
4							~50% fill/50% waste; same waste components			
5										
6							Sand; fine to medium; medium tan, moist, soft			
7	920					TD = 7'				
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/13/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Southern LF
COORDINATES	35.694 , -105.968

INTERA

TEST PIT LOG

OTP-7

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/12/2017		Enviroworks, LLC.	6.5 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/12/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/12/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	1420					Cover fill	Sand; well-graded; minor (5%) flagging (paper, panty hose)			
2										
3										
4						Possible fill; soft	Sand; fine to medium, minor coarse, minor gravel to 1"; medium tan, slightly moist			
5										
6	1435									
7						TD = 6.5'				
8										
9										
10										

Visual Field Classification

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors.
Rock Description: modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.
Additional: waste composition and thickness, organic material, other

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/12/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Western LF
COORDINATES	35.696 , -105.968

INTERA

TEST PIT LOG

OTP-8

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/13/2017		Enviroworks, LLC.	6.5 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/13/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/13/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	958					Cover fill	Sand; fine to medium; organics, roots; medium brown; dry; medium vegetation			
2						Fill/Waste Fill	Fill; sand w/ debris/waste from 15% to 30%;: plastic sheet; glass, pvc; sheet metal fiberhose, car parts, electrical conduit).			
3										
4						Waste	Waste fill: ~50% fill/50% waste; minor drywall; household waste, sheet metal, construction/demolition debris, tin, metal, plastic			
5	1016									
6	1040					Soft	Sand; medium to coarse; medium brown, moist			
7						**TD = 6.5'**				
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/13/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Southern LF
COORDINATES	35.694 , -105.968

INTERA

TEST PIT LOG

OTP-9

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/13/2017		Enviroworks, LLC.	6.5 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/13/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/13/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification	Dry Density (pcf)	Moisture Content (%)	Additional Test
							Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other			
						Cover fill	Sand; fine to medium			
1						Fill/Waste Fill	Fill: sand w/ debris <15%; plastics, glass bottles, wire mesh, construction/demolition debris (concrete, stucco), CMU block, rubber hose, styrofoam			
2										
3						Waste	Waste 50%-60%, mostly plastic and household			
4										
5						Soft	Sand; fine to coarse; medium reddish tan; moist			
6										
7						**TD = 6.5'**				
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/13/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Western LF
COORDINATES	35.695 , -105.968

INTERA

TEST PIT LOG

OTP-10

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/13/2017		Enviroworks, LLC.	6.5 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/13/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/13/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1355					Cover fill	Sand, fine to medium, gravel to 1.5" ; light to medium tan, dry			
1							Waste 60-70%, newspaper, plastic, fabric.			
2							Waste 70-80% at 2 ft bg household waste (some cardboard). Highly degraded (black).			
3							Waste 50-60% at 3 ft bgs			
4										
5						Waste				
6										
7										
8							Washing Machine			
9										
10							Tire			
						TD = 10'	Still in waste			

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/13/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	N-Central LF
COORDINATES	35.696 , -105.966

INTERA

TEST PIT LOG

OTP-11

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date: Started	Contractor	Total Depth of Test Pit
Santa Fe, NM	6/14/2017	Enviroworks, LLC.	6.5 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017	Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017		

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	850					Cover fill	Sand; silty, fine to medium; minor rounded gravel to 1.5"; medium brown, dry.			
2						Cover fill w/ debris	Debris, <5% ; plastic bag, dry			
3										
4						Waste	Waste 30-40%; household, plastic, fabric, plastic bottles, car parts, wood			
5										
6						Possible fill; soft	Sand: medium to coarse, medium brown, slightly moist			
7						**TD = 6.5'**				
8										
9										
10										

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors.
Rock Description: modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.
Additional: waste composition and thickness, organic material, other

* = re-seeded

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Western LF
COORDINATES	35.696 , -105.967

INTERA

TEST PIT LOG

OTP-12

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	3 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1	930						Surface-6" bgs; brown topsoil, dry; vegetated Sand; fine to coarse; reddish tan; slightly moist			
2							Gravel/cobbles, 2" to 12"			
3						**TD = 3'**				
4										
5										
6										
7										
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/13/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Northern LF
COORDINATES	35.697 , -105.964

INTERA

TEST PIT LOG

OTP-13

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	Total Depth of Test Pit: 3 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
							Sand; light reddish tan; grass roots			
	955						Sand; fine to coarse; reddish tan; slightly moist			
1										
2							12" rounded cobble at 12"; calcic cementation 18" - 36"; hard, light pink			
3						**TD = 3'**				
4										
5										
6										
7										
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample

U = undisturbed block sample

D = disturbed block sample

B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Eastern LF
COORDINATES	35.696 , -105.964

INTERA

TEST PIT LOG

OTP-14

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	3 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1015						Surface-6" bgs; brown topsoil, dry; vegetated Sand; fine to coarse; reddish tan; slightly moist			
1										
2							6-8" rounded cobbles at 12"; calcic cementation 18" - 36"; hard, light pink			
	1020									
3						**TD = 3'**				
4										
5										
6										
7										
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Eastern LF
COORDINATES	35.696 , -105.964

INTERA

TEST PIT LOG

OTP-15

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	7 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1048					Cover fill	Sand; fine to coarse; reddish tan; dry to slightly moist			
1										
2										
3						Waste	Waste fill, 20 - 25%; plastic, fabric, metal, electric wire, styrofoam, rubber hose			
4										
5										
6							Sand; fine to medium, minor silt; very dense; pinkish tan; slightly moist - moist			
7	1105									
						TD = 7'				
8										
9										
10										

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors.
Rock Description: modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.
Additional: waste composition and thickness, organic material, other

* = re-seeded

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Central LF
COORDINATES	35.696 , -105.965

INTERA

TEST PIT LOG

OTP-16

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	7 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1132					Cover fill	Sand; fine to medium, silty; minor gravel to 1"; medium reddish tan, slightly moist			
1						Fill/debis; soft	Nearly 100% fill soil w/ very minor debris			
2							Drywall chips @ 2'			
3							1 Plastic Bag			
4										
5	1138									
6										
7	1145						Sand; medium to coarse; gravel to 1/4"; medium tan; slightly moist; hard			
8						**TD = 7'**				
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Central LF
COORDINATES	35.695 , -105.966

INTERA

TEST PIT LOG

OTP-17

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	Total Depth of Test Pit: 10.5 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1215					Cover fill	Sand; top soil (silty medium to coarse); moderate vegetation			
1						Fill/debris; soft	Debris, <5% (brick, plastic at 6")			
2										
3							strapping tape at 3'			
4	1224									
5						Waste				
6							Waste, 60 - 70%; household, cloth, plastic, paper, glass bottles; slightly moist			
7										
8	1233									
9										
10	1247						Sand; uncertain gradation and color; slightly moist to moist			

SAMPLE TYPE

V= visual/hand sample

U = undisturbed block sample

D = disturbed block sample

B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Central LF
COORDINATES	35.695 , -105.967

INTERA

TEST PIT LOG

OTP-18

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	
Santa Fe, NM		Started: 6/14/2017	Enviroworks, LLC.	Total Depth of Test Pit: 11 ft bgs
Logged By: Larry Coons, P.E.		Completed: 6/14/2017		
		Backfilled: 6/14/2017	Elevation:	Groundwater Depth:

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification	Dry Density (pcf)	Moisture Content (%)	Additional Test
						Cover fill; low area	Surface: roadway gravel, hard pack; fill sand, medium; medium brown; moist			
1						Fill/debris	Reddish brown at 12"; rubber hose at 2', minor glass			
2										
3						Waste	Waste, 60-70%; household, plastic, metal cans, fabric, wood (lumber), tires; highly decomposed, dark brown to black; moist			
4										
5										
6										
7										
8										
9										
10										
11						**TD = 11'**	Still in waste			
12										

Visual Field Classification

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors.
Rock Description: modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.
Additional: waste composition and thickness, organic material, other

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	NW LF. Entrance
COORDINATES	35.697 , -105.965

INTERA

TEST PIT LOG

OTP-19

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	4 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1540					Cemented; hard	Sand; fine to coarse with small gravel, pinkish brown; cemented @ 12"			
1							white to pinkish tan			
2										
3										
4	1550					**TD = 4'**				
5										
6										
7										
8										
9										
10										
11										
12										

SAMPLE TYPE

V= visual/hand sample

U = undisturbed block sample

D = disturbed block sample

B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	NW LF. Entrance
COORDINATES	35.697 , -105.965

INTERA

TEST PIT LOG

OTP-20

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/14/2017		Enviroworks, LLC.	4 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/14/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/14/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1555						Sand; medium; medium brown, moist			
1							Rounded cobbles to 2" ; pinkish tan			
2										
3										
4	1605						Hard; cemented			
						TD = 4'				
5										
6										
7										
8										
9										
10										
11										
12										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/14/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	SE LF
COORDINATES	35.694 , -105.966

INTERA

TEST PIT LOG

OTP-21

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/15/2017		Enviroworks, LLC.	8 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/15/2017			
	Backfilled: 6/15/2017		Elevation:	Groundwater Depth:

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	930					Cover fill	Sand; medium to coarse; reddish brown, slightly moist			
1										
2							12" rounded cobble			
3										
4						Waste	Minor debris/flagging (carpet)			
5										
6							Waste, ~30-40%; household, plastic, paper, fabric, wire; grey to dark grey; slightly moist to moist; 50-60% @ 6 - 7'			
7	942									
8	1000						Sand; medium to coarse; tan, slightly moist to moist			
9						TD = 8'				
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/15/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Northern LF
COORDINATES	35.696 , -105.965

INTERA

TEST PIT LOG

OTP-22

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	
Santa Fe, NM	Started: 6/15/2017		Enviroworks, LLC.	Total Depth of Test Pit: 6 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/15/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/15/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
1						Cover fill	Sand; fine to medium, brown; vegetation sparse			
2							Sand; medium to coarse; reddish brown, dry			
3	1120									
4						Waste	Waste, 30-50%; plastic, clothes, glass bottles			
5										
6	1145						Sand; medium to coarse; medium tan, dry to slightly moist			
7						**TD = 6'**				
8										
9										
10										

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/15/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	Southern LF
COORDINATES	35.694 , -105.967

INTERA

TEST PIT LOG

OTP-23

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	Total Depth of Test Pit:
Santa Fe, NM	Started: 6/15/2017		Enviroworks, LLC.	12 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/15/2017			
	Backfilled: 6/15/2017		Elevation:	Groundwater Depth:

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1225					Cover fill	Surface: Gravel parking area/roadway, upper 2" gravel/brown sand			
1							Sand; medium to coarse, medium reddish brown, moist			
2						Waste/fill	Debris, <25%; plastic, wire			
3						Waste	Waste, ~60-70%; plastic, rubber house; household, moist; degraded			
4							~30% construction/demolition debris, (lumber, bricks); stong odor, black			
5										
6										
	1243						washing machine; plastic, concrete slab			
7										
	1248									
8										
9										
	1305									
10										
11										
	1325									
12										

TD = 12' Still in Waste

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/15/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	W Parking Area LF
COORDINATES	35.696 , -105.966

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

INTERA

TEST PIT LOG

OTP-24

Project:	Project Number:	Client:	Width:	Length:
Former Frank Ortiz Landfill Waste Characterization	COSFE.C001.ORTIZ Site Characterization/Investigation	City of Santa Fe		

Address, City, State	Date		Contractor:	
Santa Fe, NM	Started: 6/15/2017		Enviroworks, LLC.	Total Depth of Test Pit: 11 ft bgs
Logged By: Larry Coons, P.E.	Completed: 6/15/2017		Elevation:	Groundwater Depth:
	Backfilled: 6/15/2017			

Depth (feet)	Clock Time	Sample Type	Sample Number	Blow Counts (blows/foot)	Lab Unified Soil Classification	Comments	Visual Field Classification **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors. **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions. **Additional:** waste composition and thickness, organic material, other	Dry Density (pcf)	Moisture Content (%)	Additional Test
	1435					Cover fill	Surface: Gravel parking area, 1/2-3/4" ; red and brown sand			
1							Sand; medium to coarse; reddish brown, slightly moist to moist			
2						Fill/debris	Grey sand, fabric, wire, sheet metal			
3						Waste	Waste, 50-60% ; metal sign, tire, concrete; grey sand			
4										
5										
6										
	1455									
7						Waste	Waste, 70-80%; plastic, styrofoam, cardboard, yard waste, sawdust; tires @ 9'			
8										
9										
	1505									
10										
11										
	1512									

TD = 11' Still in waste

LOGGED BY	LMC
CONTRACTOR	Enviroworks, LLC.
DATE COMPLETED	6/15/2017
EXCAVATOR TYPE	CAT 420F
SURFACE ELEVATION	
PROJECT	Ortiz Landfill
PROJECT NUMBER	
LOCATION	N LF Parking Area
COORDINATES	35.696 , -105.967

SAMPLE TYPE

V= visual/hand sample
U = undisturbed block sample
D = disturbed block sample
B = disturbed bulk sample

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-01	Date Started : 6/26/2017 Date Completed : 6/26/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 22' bgs Northing : 1707810.13 Easting : 1724006.23

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND with Gravel and Cobbles, sand (f-m),dry	(FILL)	
				Fill, buried waste, 50-60% waste, metal glass, plastic	WASTE	
2						
4						
6						
8						
10				Gravel and Cobbles	GP	
	1	0	14,17	SAND (m-c), with Gravel (0.5 inch), reddish tan, minor white calcic inclusions	SP	
12						
14						
16	2	0	12,15			
18						
20	3	10	13,14			
22						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-02	Date Started : 6/26/2017 Date Completed : 6/26/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 22' bgs Northing : 1724528.3 Easting : 1707776.20

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, reddish tan, dry to slightly moist	(FILL)	
2						
4				SAND with minor Gravel (0.25 inches), pinkish tan, slightly moist to moist	SP	
6						
8						
10	1	0	0			
12						
14						
16						
18						
20	2	0	0.3			
22						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-03	Date Started : 6/26/2017 Date Completed : 6/26/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 22' bgs Northing : 1708403.43 Easting : 1724399.89

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (m), tan to brown, dry	(FILL)	
2				FILL, waste debris, plastic, aluminum cans, wood, lumber, electrical wire	(WASTE)	
4						
6						
8						
10				SAND (m), brown, slightly moist to moist	SP	
	1	28	8,8			
12						
14						
16	2	NS	7,9			
18				SAND (m-c) with minor gravel (0.25 inches), pink to tan, slightly moist to moist		
20						
	3	5	26,43			
22						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-04	Date Started : 6/26/2017 Date Completed : 6/26/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 21' bgs Northing : 1708075.91 Easting : 1724595.62

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				Fill material, SAND (m), with minor gravel, pinkish tan, slightly moist,	(FILL)	
2						
4						
6						
8						
10	1	0	12,11			
				FILL, waste debris includes, plastic, paper, black to gray, 20-30% waste	(WASTE)	
12						
14				SAND (m-c), with Gravel (0.25 inch), pinkish tan, slightly moist	SP	
16	2	0	8,8			
18						
20	3	0	51			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-05	Date Started : 6/26/2017 Date Completed : 6/26/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 22' bgs Northing : 1708435.06 Easting : 1724749.56

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (m), tan, dry to slightly moist	(FILL)	
2						
4				FILL, waste debris, mesh screen, plastic, household waste, newspaper, wood/lumber, black to dark gray, moist	(WASTE)	
6						
8						
10	1	23	15,10			
12						
14						
16	2	1	13,36			
				SAND (m), pink to tan, moist	SP	
18						
20	3	NS	50+			
22						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-06	Date Started : 6/26/2017 Date Completed : 6/26/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 21' bgs Northing : 1708568.26 Easting : 1724870.29

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (m), pink to tan, slightly moist	(FILL)	
2						
4						
				GRAVEL FILL(1 inch)		
6				FILL, waste/debris, plastic, paper	(WASTE)	
8						
10	1	0	50+	SAND, (m-c), pink to tan, moist	SP	
12						
14						
16	2	1	50+			
18						
20	3	0	50+			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-07	Date Started : 6/27/2017 Date Completed : 6/27/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 21' bgs Northing : 1708579.73 Easting : 1724726.80

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (m-c), with Gravel and small Cobbles	(FILL)	
2				FILL, waste debris, cloth, rags, plastic, glass, wood, lumber, sheet metal and paper. 50-60% waste	(WASTE)	
4						
6						
8						
10						
12						
14				SAND (c), pink to tan, moist	SP	
16	1	49	50+			
18				Silty CLAY, reddish brown, slightly moist	CL	
20	2	19	50+			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-08	Date Started : 6/27/2017 Date Completed : 6/27/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 11' bgs Northing : 1708669.84 Easting : 1725068.87

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (f-m), pink to tan, dry	(FILL)	
2				FILL, waste debris, plastic, metal can, paper, wood, plant matter	(WASTE)	
4						
6						
8				Silty SAND (f), reddish brown, moist	SP	
				SAND (m), pinkish tan, moist		
10	1	0	50+			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-09	Date Started : 6/27/2017 Date Completed : 6/27/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 11' bgs Northing : 1708719.64 Easting : 1725308.64

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample (x)	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (m), reddish brown, moist	(FILL)	
2				SAND, (m-c), red to pinkish brown, grey and yellow inclusions, moist, partially indurated	SP	
4						
	1	0	50+			
6						
8						
10	2	0	50+			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-10	Date Started : 6/27/2017 Date Completed : 6/27/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 27' bgs Northing : 1709066.23 Easting : 1725170.47

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample (x)	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (f-m), with minor Gravel (0.33-0.5 inch), reddish tan, slightly moist to dry	(FILL)	
2						
4						
6	1	28	18,9	FILL material, SAND, black and greyish pink, 100% fill soil, minor wood debris		
8						
10	2	NS	41,18			
12						
14						
16	3	NS	12,8	FILL, waste debris, black waste, wire, paper, glass, metal can, household, waste, shoe	(WASTE)	
18						
20	4	15	14,14	SAND, (c-very c) with Gravel (0.25) inch, pink to gray	SP	
22						
24						
26	5	NS	31,42	SAND (c-very c), pinkish tan, with yellow, greenish, and red inclusions, moist		

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-11	Date Started : 6/27/2017 Date Completed : 6/27/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 29' bgs Northing : 1708624.19 Easting : 1724513.51

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND, (m-c), reddish brown, moist	(FILL)	
2						
4				FILL, waste debris, brown, 60-70% waste, household, metal cans, plastic, yard waste, black, moist to wet	(WASTE)	
6						
8						
10						
12						
14						
16						
18						
20	1	68	50+			
22						
24						
26	2	NS	17,15	SAND, with Gravel, (m-c) sand, grey brown, moist, dense	SP	
28	3	NS	42,50+			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-12	Date Started : 6/27/2017 Date Completed : 6/27/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 29' bgs Northing : 1708554.15 Easting : 1724619.38

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, Gravelly SAND (m-c), reddish brown, fill material for parking lot	(FILL)	
2						
4				FILL, waste debris, brown, 60-70% waste, household, metal, plastic, rubber, styrofoam, clothes, yard waste	(WASTE)	
6						
8						
10						
12						
14						
16	1	NS	50+			
18						
20						
22						
24						
26	2	17	23,28	SAND (m-c), trace Gravel, grey-brown, medium dense to dense, moist	SP	
28	3	13	40,48			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-13	Date Started : 6/28/2017 Date Completed : 6/28/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 17' bgs Northing : 1708731.92 Easting : 1724592.08

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, Gravelly SAND (m-c), brown, fill material for parking lot	(FILL)	
2				FILL, waste debris, dark brown, 60-70% waste, plastic, bottles,cloth, rubber, metal	(WASTE)	
4						
6						
8						
10						
12						
14				No cuttings		
16	1	0	25,42	SAND (m-c), grey brown, dense, dry	SP	

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-14	Date Started : 6/28/2017 Date Completed : 6/28/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 24' bgs Northing : 1708741.77 Easting : 1724652.35

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, Gravelly SAND (m-c), brown, dry, fill material for parking lot	(FILL)	
2				FILL material, SAND with Gravel, (m-c) sand		
4				FILL, waste debris, brown, 75-80% waste, plastic, yard waste, wood, paper, glass, cloth, household waste	(WASTE)	
6						
8						
10						
12						
14						
16	1	NS	7,15			
18						
20	2	50	12,14			
22	3	10	13,16	SAND, with Gravel, (m-c) sand, grey brown, medium dense, moist, plug clayey silt in shoe	SP	
24						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-15	Date Started : 6/28/2017 Date Completed : 6/28/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 12' bgs Northing : 1708884.76 Easting : 1724784.58

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, Gravelly SAND (f,m,c), gravels 0.5"-1.0", parking lot fill material	(FILL)	
2						
4				FILL, waste debris, brown, waste fill or flagging 15-20%, wood, and plastic	(WASTE)	
6						
8						
10	1	0	27,50	SAND with Gravel, (m-c) sand, grey brown, moist, dense	SP	
12						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-16	Date Started : 6/28/2017 Date Completed : 6/28/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 22' bgs Northing : 1708886.81 Easting : 1724914.18

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, Gravelly SAND (m-c), brown, fill material for parking lot	(FILL)	
2				FILL material, SAND with Gravel, brown, medium sand, dry		
4						
6				FILL, waste debris, brown, 60-70% waste, clothes, plastic, wood, aluminum, glass, household waste	(WASTE)	
8						
10						
12						
14				No cuttings		
16						
18						
20	1	0	8,8	SAND, trace Silt, (f-m) sand, reddish brown, loose, moist to dry	SM	
22						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-17	Date Started : 6/28/2017 Date Completed : 6/28/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 30' bgs Northing : 1708708.42 Easting : 1724755.57

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 3 and 4 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, Gravelly SAND (m-c), brown, dry, fill material for parking lot	(FILL)	
2				FILL, waste debris, brown, 70-75% waste, paper, cloth, yard waste, metal, plastic,	(WASTE	
4						
6						
8						
10						
12						
14						
16						
18						
20	1	NS	16,17			
22						
24	2	21	36,48	SAND with Gravel, (m-c) sand, dry to moist, medium dense to dense	SP	
26	3	7	23,31			
28	4	1	35,36			
30	5	NS	62	No recovery in split spoon		

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-18	Date Started : 6/28/2017 Date Completed : 6/28/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 18' bgs Northing : 1708917.44 Easting : 1725089.76

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND, trace Gravel, (f-m) sand, dry	(FILL)	
2						
				FILL, waste debris, brown, 30-40% waste, plastic, metal, wire, tile, gravel, waste decreases as you descend in this interval	(WASTE)	
4						
6						
8						
10						
12						
14						
16	1	9	60/2"			
				SAND with Gravel, coarse sand, semicompetent, rock layers, dry, very dense	SP	
18	2	NS	100			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-19	Date Started : 6/29/2017 Date Completed : 6/29/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 28' bgs Northing : 1708760.04 Easting : 1724915.80

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 3 and 7 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND, with Gravel, (f-m) sand, brown, dry	(FILL)	
2				FILL, waste debris, brown, 60-70% waste, clothing, plastic, metal, tin cans, glass	(WASTE	
4						
6						
8						
10						
12						
14						
16	1	15	9,6			
18	2	37	10,15			
				SAND, with Gravel, (m-c) sand, grey brown, dry, dense	SP	
20	3	11	25,39			
				SILT, trace Clay, reddish brown, hard, dry		
22	4	4	45,100 /9"			
24	5	2	41,75/ 9"		ML	
26	6	6	75/10"			
				SAND (m-c), reddish brown, dry, very dense		
	7	2	75/11"	SAND (m-c) with Gravel, very dense, dry to moist	SP	
28						

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-20	Date Started : 6/29/2017 Date Completed : 6/29/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 12.5' bgs Northing : 1708472.98 Easting : 1724899.17

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (f-c), trace Gravel, brown, dry	(FILL)	
2						
				FILL, waste debris, brown, 30% waste, plastic, very little cuttings	(WASTE)	
4						
6						
8						
10	1	NS	50/4"	Gravelly SAND, (m-c), pulverized semicompetent rock layer	SP	
12	2	NS	50/3"			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-21	Date Started : 6/29/2017 Date Completed : 6/29/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 12' bgs Northing : 1708218.48 Easting : 1724384.71

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 1 and 4 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (f-c), brown, dry	(FILL)	
2				FILL, waste debris, brown, minor waste, few cuttings	(WASTE)	
4						
6	1	0	52,75	SAND with Gravel, (m-c) sand, grey brown, very dense, semicompetent, pulverized rock layer, dry	SP	
8	2	0	41,75			
10	3	3	62,55			
12	4	2	100/10"			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-22	Date Started : 6/29/2017 Date Completed : 6/29/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 12' bgs Northing : 1708496.01 Easting : 1724874.38

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 3 and 4 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (f-c), trace Gravel, brown, dry	(FILL)	
2						
4				FILL, waste debris, brown, 35% waste, plastic, rubber, wood	(WASTE)	
6	1	1	1,3			
8	2	2	2,10			
10	3	3	20,80	SAND with Gravel, sand (m-c), gravel (f), decomposed rock, very dense, dry	SP	
12	4	4	45,50			

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-23	Date Started : 6/29/2017 Date Completed : 6/29/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 13' bgs Northing : 1707940.81 Easting : 1724115.15

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (f-m), trace Gravel, brown, dry	(FILL)	
2				FILL, waste debris, brown, 30% waste, plastic, yard waste, decomposed trash, black tar substance	(WASTE)	
4						
6	1	NS	10,4			
8	2	NS	6,4			
10	3	44	7,14			
12	4	NS	50/3"	Pulverized rock in shoe, low recovery, very dense	GP	

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-24	Date Started : 6/30/2017 Date Completed : 6/30/2017 Drilling Method : Hollow stem auger Sampling Method : Split Spoon Drilling Company : EnviroDrill Driller : Juan	Logged by: : M. Gerber Total Depth: : 15' bgs Northing : 1707932.32 Easting : 1724106.39

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 2 and 5 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS	Graphic
0				FILL material, SAND (f-c), with Gravel (f), dry	(FILL)	
2				FILL, waste debris, brown, 40% waste, plastic, paper, cloth,	(WASTE)	
4						
6	1	1	12,15	FILL, waste debris, dry ,loose, minor plastics		
8	2	3	11,10	SAND with Gravel, sand (m-c), gravel (f), reddish brown, moist, very dense, competent pulverized rock layer	SP	
10	3	NS	15,65			
12	4	2	26,60			
14	5	1	46,66			

LOG OF BORING: SB-25/SV-01

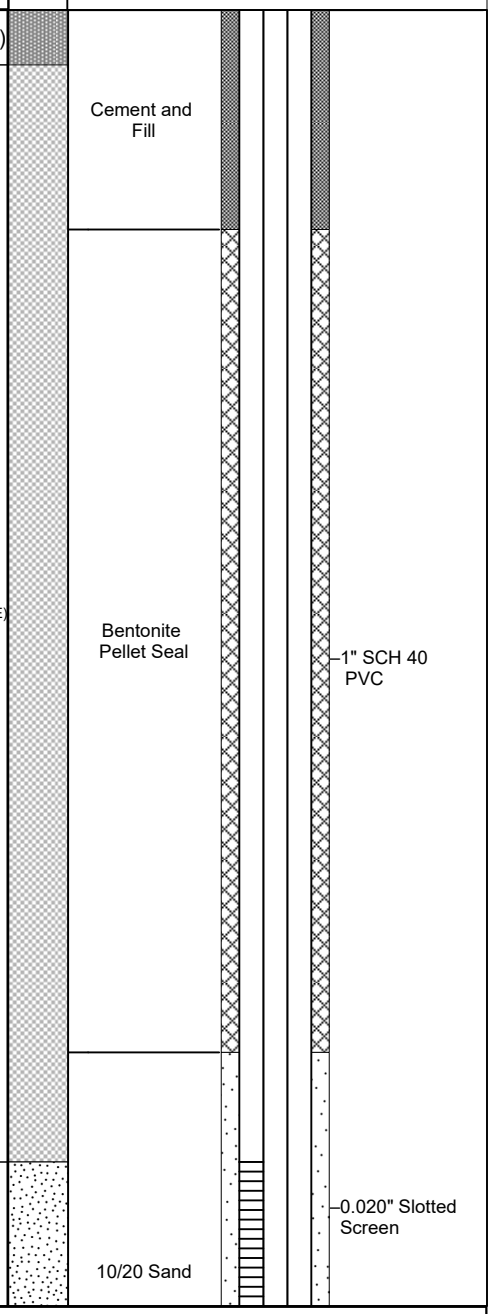
Date Started	: 6/30/2017	Logged by:	: M. Gerber
Date Completed	: 7/5/2017	Total Depth:	: 47' bgs
Drilling Method	: Hollow stem auger	Northing	: 1708022.19
Sampling Method	: Split Spoon	Easting	: 1724253.14
Drilling Company	: EnviroDrill		
Driller	: Juan		

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 9 and 12 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS
0				FILL material, SAND (m-c), trace Gravel, dry, brown	(FILL)
2				FILL, waste debris, cobbles, asphalt, mixed with gravel, waste, cloth, plastic, metal, glass, reddish brown sands, moist, loose	(WASTE)
4					
6	1	NS	4,4		
8	2	NS	17,60		
10	3	NS	14,7		
12	4	NS	7,13		
14	5	NS	9,9		
16	6	33	5,5		
18	7	23	4,5		
20	8	NS	4,7		
22	9	8	30,50	Pulverized, decomposed arkosic sandstone, made up of (m-c) sand and (f) gravels	SP



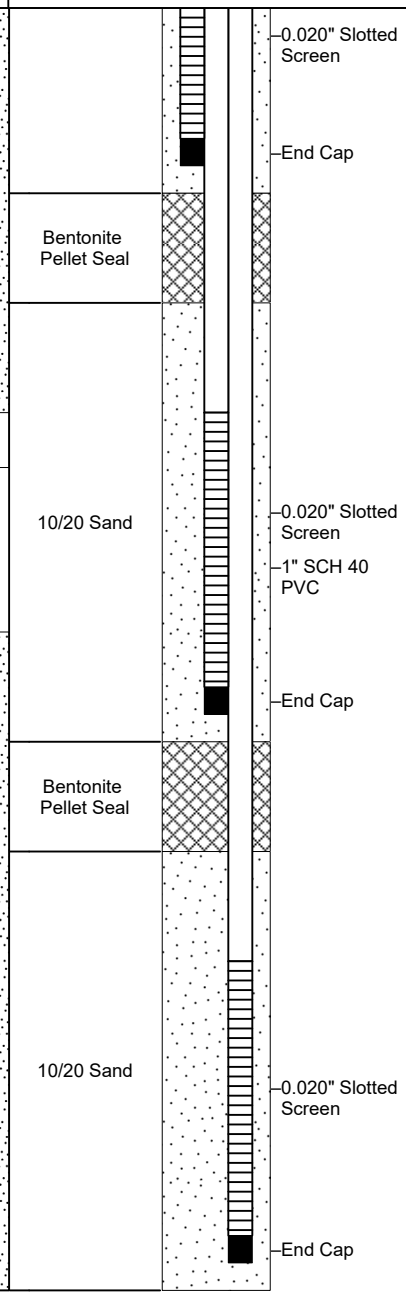
INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-25/SV-01	Date Started	: 6/30/2017	Logged by:	: M. Gerber
		Date Completed	: 7/5/2017	Total Depth:	: 47' bgs
		Drilling Method	: Hollow stem auger	Northing	: 1708022.19
		Sampling Method	: Split Spoon	Easting	: 1724253.14
		Drilling Company	: EnviroDrill		
		Driller	: Juan		

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 9 and 12 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS
24				Same as previous	SP
26					
28					
30				SAND (m-c), dry, very dense	
	10	4	63,70	SILT, trace Sand (f), dry, hard	ML
32				No samples or drill cuttings	
34					
36	11	20	90,50/ 3"	SAND with Gravel, sand (m-c), grey brown, very dense, dry	SP
38					
40	12	52	100/8"		
42					
44					
46	13	25	55/2"		



LOG OF BORING: SB-26/SV-02

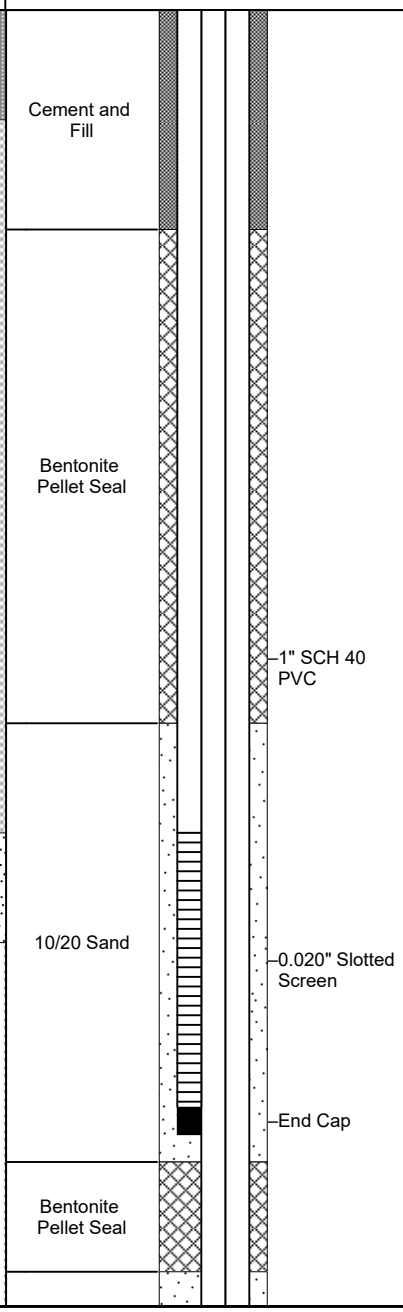
Date Started	: 7/5/2017	Logged by:	: M. Gerber
Date Completed	: 7/6/2017	Total Depth:	: 41' bgs
Drilling Method	: Hollow stem auger	Northing	: 1708482.09
Sampling Method	: Split Spoon	Easting	: 1724495.81
Drilling Company	: EnviroDrill		
Driller	: Juan		

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 3 and 5 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS
0				FILL material, Gravelly SAND (m-c), dry	(FILL)
2				FILL, waste debris, brown, 75 % waste, plastic trash bags, styrofoam, paper, cloth, metal, moist	(WASTE)
4					
6					
8					
10	1	NS	NS		
12					
14					
16	2	3	3.1	SAND with Gravel, sand (m-c), gravel (f), medium dense, dry	SP
18				Silty SAND, reddish brown, dry, cuttings only	
20					
22					SM



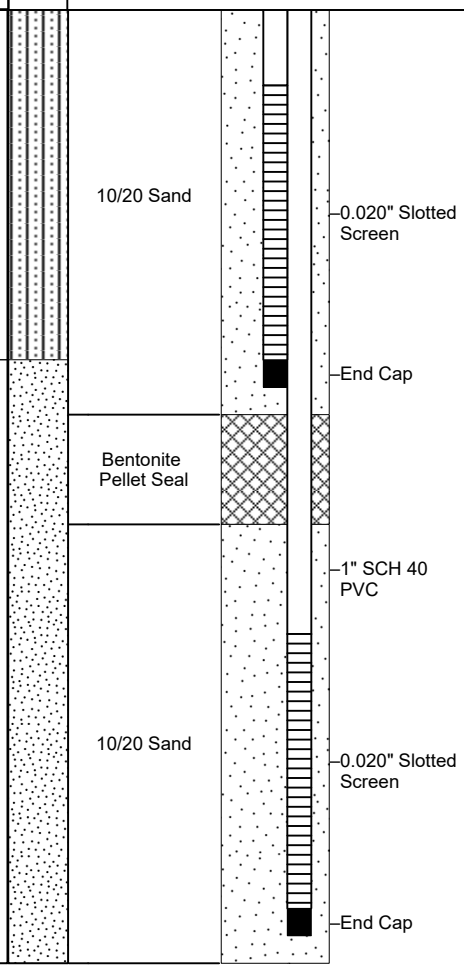
INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-26/SV-02	Date Started	: 7/5/2017	Logged by:	: M. Gerber
		Date Completed	: 7/6/2017	Total Depth:	: 41' bgs
		Drilling Method	: Hollow stem auger	Northing	: 1708482.09
		Sampling Method	: Split Spoon	Easting	: 1724495.81
		Drilling Company	: EnviroDrill		
		Driller	: Juan		

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 3 and 5 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS
24				Silty SAND, same as previous	SM
26					
28					
30				SAND with Gravel, sand (m-c), gravel (f), dry, very dense	SP
	3	5	5.4		
32					
34					
36	4	8	7.6		
38					
40	5	2	1.9		



LOG OF BORING: SB-27/SV-03

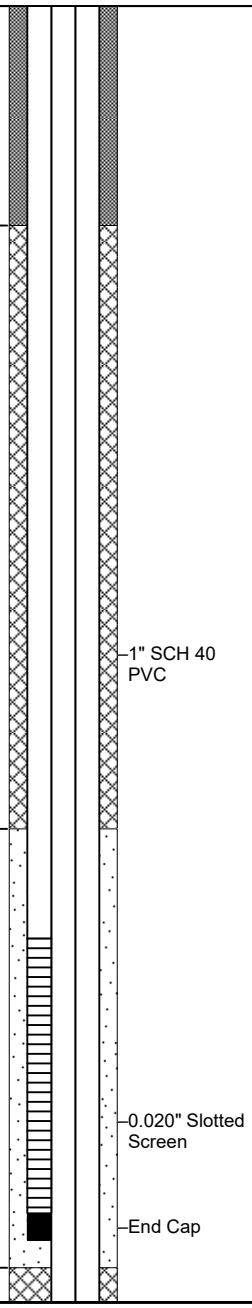
Date Started	: 7/6/2017	Logged by:	: M. Gerber
Date Completed	: 7/6/2017	Total Depth:	: 43' bgs
Drilling Method	: Hollow stem auger	Northing	: 1708994.68
Sampling Method	: Split Spoon	Easting	: 1724952.84
Drilling Company	: EnviroDrill		
Driller	: Juan		

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 3 and 8 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS
0				FILL material, GRAVEL and SAND (f-c), parking lot fill, dry	(FILL)
2					
				SAND, brown, 50-60% waste, plastic, rubber, glass, paper, wood, brick,	
4					
6					
8					
10					(WASTE)
	1	NS	7,3		
12					
14					
16	2	3	9,13		
				SAND with Gravel, sand (m-c), medium dense, dry	
18	3	0	7,28		SP
				No split spoons or drill cuttings	
20					
22					



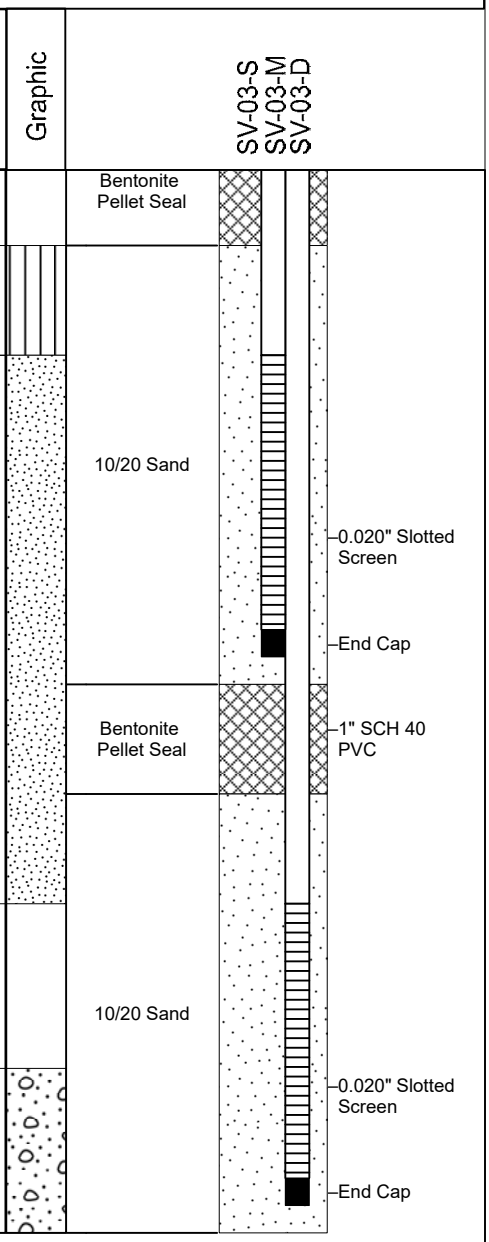
INTERA GEOSCIENCE & ENGINEERING SOLUTIONS	LOG OF BORING: SB-27/SV-03	Date Started	: 7/6/2017	Logged by:	: M. Gerber
		Date Completed	: 7/6/2017	Total Depth:	: 43' bgs
		Drilling Method	: Hollow stem auger	Northing	: 1708994.68
		Sampling Method	: Split Spoon	Easting	: 1724952.84
		Drilling Company	: EnviroDrill		
		Driller	: Juan		

Project Name:
Ortiz Landfill
Santa Fe, NM

Project #: COSFE.C001.ORTIZ

Notes:
1. bgs = below ground surface; NA = Not Available; NS = Not Screened
2. Samples 3 and 8 sent for laboratory analysis.

Depth in Feet	Sample No.	PID (ppm)	Blow Counts /per foot	Description	USCS
24				No split spoon samples or drill cuttings	
26	4	0	30,75	SILT trace Clay, reddish brown, hard, dry	ML
28	5	NS	100	SAND trace Gravel, sand (m-c), very dense, dry	SP
				SAND with Gravel, sand (m-c), reddish brown, very dense, dry	
30	6	0	50/3"		
32					
34					
36	7	11	65/10"		
38				No split spoon samples or drill cuttings	
40	8	0	50/3"	Rock pieces, pulverized rock, sand and gravels, very dense, dry	GP
42					



APPENDIX C

Field Forms and Notes

Projects (continued).....

Frank Ortiz Landfill. Waste Characterization - Test Pits. AKA/LMC 6/12/17

0830 AKA on-Site.

0845 LMC (INTERA) on-Site.

Sean and Mike with Envroworks LLC (ENVLLC) on-Site.

Meet/Muster Point designated the gravel parking lot NW of the fenced boundary.

Pilons w/steel cable surround the park perimeter. Need to find access.

0930 AKA conducts Site Kick Off Health + Safety Meeting including H+S document review JSA's, and Daily Tailgate Meeting.

Weather: Sunny, warm 70s

Objectives: Begin excavation of Test Pits for waste characterization.

Printed in China

6/12/17

Frank Ortiz L.F. Waste Characterization - Test Pits AKA LMC

Equipment:

EWLLC: 8CY Dump Truck, Backhoe - CAT 420

INTERA: RKI GX 6000 air monitor. Instrument % LEL CH4, %O2, CO ppm, H2S ppm, VOCs ppm.

Calibrated ~~this morning~~ 6/9/2017 by ESP. Fresh air calibration complete.

1000 Decide to begin on the SW corner of the Site.

Mob to location and set up perimeter fencing (orange fencing and T-Posts).

Test Pit designated OTP-1. See Map.

6/12/2017

Frank Ortiz L.F. Waste Characterization - Test Pits AKA LMC

OTP-1

"Waste" from ~0.5'-4' bgs. "waste" = flagging of metal, plastics, cans, bottles (glass). one razor blade noted. Well graded sands at ~4' bgs - 6' bgs. Bottom of TP @ 6' bgs. See Test Pit log for more detail. All material replaced back into the test pit excavation.

1215 Mob' to next location (see map). Excavated ~3ft bgs. Material appears to be native, clean fill. See Test Pit log for more detail.

OTP-2 See above.

AKA/LMC.

6/12/17 Frank Ortiz 4F Waste Char. Test Pits

[OTP-3] Waste observed at ~~1'-9'~~ @ 1'-9'
Binders (plastic), metal, non-degraded - low degraded waste.

[OTP-4] Native, clean soils. 0-3' bgs

1500 Measured existing.

1535 [OTP-5] Native, clean soils. 0-3' bgs

Approx. 5 CY of waste material. hauled off to Caja del Rio Landfill in Santa Fe. [5 tons @ 6/13/17]

1600 [OTP-6] Encountered waste at 1' bgs. Temporarily backfilled with waste until dump truck is back to haul *
* Control on next pg-

Test Pits. AKA/LMC

Frank Ortiz 2F Waste Characterization. 6/12/17
* off waste tomorrow.
* Waste = 1-5 ft. TD = 7 ft bgs (see 6/13) *

1610 Set up at [OTP-7]
at ~1.5' bgs some flagging was observed. TP location is adjacent to retaining features along arroyo (riprap + wire, shotcrete). Likely on-site compacted fill material. Bottom of TP at 6 ft bgs.

1645 Back at muster point to discuss plan for tomorrow.
LFG/VOCs consistent w/background.

1715 Loaded and headed off-site.

6/13/17 Frank Ortiz & F. Test Pits | AKA/LMC

0800 LMC on-Site
EWLLC (Justin) on-Site

0810 AKA on-Site.

AKA conducted Daily H+S meeting and went over H+S plan with Justin. Discussed fencing work area, gen. public traffic, LFG/air monitoring.

Calibrated RKI GX 6000: 50% LEL 12% O2 - 100 ppm CO. 50 ppm CO 25 ppm H2S, Fresh air.

0830 Mike (EWLLC) on-Site w/truck only (no trailer).

0850 Mob' to OTP-6 location (see map).

surface debris → 6"-3' bgs
waste comprised of plastics, glass MSW.
3-5 50/50% waste + soils
5-7 native silty sand.
fine - med. moist.

6/13/17

0945 Set up at OTP-8 east of path east of OTP-6 (see map).
Orange fencing set up around perimeter of work area.

1000 Diane Agnew on-Site.
Went over HASP with her + had her sign Site Acknowledgement form.

0-1' Fill material 1-3' Filled debris.
waste from approx. 3-3.5 ft. bgs.

5.5'-6.5' bgs Appears to be native material. Need to confirm with boring

2 ~ 80 g soil samples were collected in ziploc bags for heated headspace analysis:

~4ft bgs =	0	20.9	O2
H2S	1.5	3	CO
VOCs	1.8		

6/13/17 Frank Ortiz L.F. Waste Char. Test Pits.
Below waste (~ 6.5 ft bgs

% LEL	0	% O2	20.9
H2S	2.0	CO (ppm)	3
VOC	1.7		

Collected one bag with backfill material for baseline comparison. Results consistent.

~~1215~~ @ OTP-9

~~Native~~ Clean material @
0-6" clean.
6"-3 debris/flagging.
3-4.5 waste
4.5-6.5 Native soils

1215 Done with OTP-9 - break for lunch.
1 Load taken to CdR LF = 6.07 tons.

Frank Ortiz L.F. Waste Char. Test Pits 6/13/17

1330 Set up at OTP-10 within the open dog park area (usually busy). See map for location. Waste observed at 1 ft bgs. Waste is more highly degraded. Soil material is black & dark consistent with waste degradation. No HC or solvent odors, identifiable waste includes plastics, metal, glass, fabric. Newspaper dated April 1970.

LFG/VOCs consistent with background levels.

1450 Due to the large amount of waste, the excavation is measuring ~ 10 × 10 × 2.5 (d×l×w). This equates to ~9.3CY/TP within the central area of the landfill. The geophysics survey does show a ~~large~~ high conductivity area at OTP-10. EWLC only has one truck here. As such there is

6/13/17 Frank Ortiz L.F. Waste Char. Test Pits AKA/LMC

limited backfill. The CdR landfill closes at 1630. As such, the last load of waste transported off-site needs to leave by 1600.

Due to the limited backfill and haul truck(s), the test pits will be prioritized based on the perimeter TPs. This will limit the waste hauled offsite. The TPs with the greater amount of waste can be confirmed using the HSA boring investigation

[OTP-10] Need to confirm with boring.
Waste from 1 to 10 ft bgs

1530 (2) Load taken to CdR = [8.33 tons]

offsite at 1555.

Frank Ortiz L.F. Waste Char. Test Pits. 6/14/17

OECC INTERA Inc. on-site (LMC + ARA).
Justin (EWLLC) on-Site

Weather: Sunny, warm (60s).
ARA conducted H&S meeting. Covered excavation safety, LFG, on-site traffic and public exposure.

Equipment: 420F CAT Backhoe, Haul truck w/pup (DT18).
RKI GX 6000 Calibrated to:
50% LEL 25 ppm H2S
50 ppm CO 12% O2
100 ppm Isobutylene.
Fresh air.

Objectives:
Based on yesterday's findings and equipment logistics, the perimeter test pits / test pit areas shown with low conductance on the geophysics survey will be prioritized.

[CTP-11] located ~60 ft west of west gravel parking lot.

6/14/17 Frank Ortiz L.F. Waste Char. Test Pits. AKA/LMC

OTP-11 At ~1 ft bgs some debris/flagging
3 ft bgs – 6.5 ft bgs ~15% waste (fabric, plastics, glass, metals).
TD = 6.5 ft bgs.

0920 Setup at ~~Located~~ @ OTP-12 location (see map).
Native, clean ~~fill~~ soils material.
Bottom of TP at 3 ft bgs.

OTP-13 See location on map.
Native, clean material.
Bottom of TP at 3 ft bgs.

1000 Locate OTP-14
Native, clean material to 3 ft bgs (bottom of TP).
See location on map

1025 Locate and setup at OTP-15

Waste 3-5.5 ft bgs
TD = 7 ft.

AKA/LMC

Frank Ortiz Landfill Waste Char. Test Pits 6/14/17

Two TP locations eliminated from original SAP map. (See map). One west/NW of gravel lot (surface material appears native/undisturbed).

One on side slope along eastern edge. Location shown outside of ~~to~~ waste boundary, based on ~~geo~~ or physics survey. Adjacent TP locations show no waste (native material observed to 3 ft bgs).

OTP-15

3-5.5 ft bgs mixed MSW/soils. 50/50.
5.5-7 ft bgs clean soils.

1115 Locate and setup at OTP-16. See map for location.
Native and clean material to 7 ft bgs.

1145 Began backfilling OTP-16

6/14/17 Frank Ortiz L.F. Waste Char. Test Pits LMC/AKA

1215 [OTP-17] Waste interval:
4ft - 9.5 ft bgs

4ft bgs
%LEL 0 %O2 20.9
H2S 1.0 ppm CO ✓ ppm
VOC 3.7 ppm

~5.5 bgs 0.5 ppm H2S
0.1 ppm VOCs

~8 ft bgs 1.5 ppm H2S
2.0 ppm VOCs

LMC/AKA.

Frank Ortiz L.F. Waste Char. Test Pits 6/14/17

@ 9.5 ft bgs 1.5 ppm H2S
1.0 ppm VOCs

Bottom of Test pit at 10.5 ft bgs.

1415 Setup at [OTP-18] near the entrance to the west gravelled parking lot (see map).

Waste at 3 ft bgs extending to Bottom of test pit at 11 ft bgs. Need boring to confirm. Waste material ranged from slightly moist to moist and non-degraded (plastics, wood, metal, tires, fabric, brick, concrete) to well degraded material - (grey to black well graded fine to coarse grained). Peak H2S reading measured at the bucket of the backhoe. = 1.5 ppm.

AKA/LMC

6/14/17 Frank Ortiz L.F. Waste Char. Test Pits

1515 Began backfilling at [OTP-18]

[OTP-19]

Native material to 4ft bgs

[OTP-20]

Native material to 4ft bgs.

1635 Offsite.

Frank Ortiz L.F. Waste Char. Test Pits LMC/AKA 6/15/17

0800 AKA on Site

Justin (ENLIC) on-Site.

Larry - Onsite.

~~0830~~ Calibrated RKI GX 6000 to

50% LEL 12% O2

25ppm H2S 50ppm CO

100 ppm isobutylene

Weather: Warm 60's.

0830 Mike (ENLIC) on-Site with Borrow material (trailer and truck).

915 Set up at [OTP-21] just east of auxiliary. Debris at 4ft. Waste from 4.5-7ft. TD=8

942 @ 7ft bgs [H2S] = 0.15 ppm

VOCs = 1.0 ppm.

Debris/flagging at 4ft bgs

Waste from 4.5-7 ft bgs

Bottom of TP at 8 ft bgs.

6/15/17 Frank Ortiz L.F. - Test Pits

1018 Done with work area.

1030 Locate adjusted location (south) for [OTP-22]

1100 Set up at [OTP-22]
Fill to 3 ft bgs
Waste from 3-5' bgs
Native 5-6' bgs.

1120 Shirlene and Lawrence with the City of Santa Fe on-site.

1125 Collected a cover soils sample from [OTP-22]. Composite sample was from ~ 6" - 3' bgs, 5-gal bucket will be submitted for Modified Proctor and.

TD = left bgs.

Frank Ortiz L.F. - Test Pits 6/15/17

1215 Set up at [OTP-23] Central area in gravel parking lot.

Debris/Flagging from 2-3' bgs.
Waste from test pit
3 - bottom of ~~bank~~ (12' bgs).
Peak [H_2S] of 2.0 ppm measured at bucket.

Load hauled = 16.68 tons

6/15/17 Frank Ortiz L.F. - Test Pits UMC/AKA

1420 Set up at [OTP-24]

Debris at 1.5 ft bgs.

Waste from 3 ft - bottom of ~~boring~~ Test Pit at 11 ft bgs.

@ 7 ft bgs LFG:

H_2S = 1.0 ppm

VOCs = 3.2 ppm

same plastics, foam, well degraded material

Drilling

Frank Ortiz L.F. Waste Characterization 6/26/17

0800 AKA / LMC (INTERIM) on-site

Calibrated RKI GX 2012 (w/ option for % CH_4) and MiniRAE PID with.

Fresh Air
50 ~~ppm~~ % vol CH_4
50 % LEL CH_4
50 ppm CO
25 ppm H_2S
12 % O_2
} RKI

100 ppm Isobutylene
Fresh Air.
} PID

0820 EnviroDrill (EDI) on-site

Juan (Driller)

Kordell (Helper)

0830 AKA conducted Site Orientation / Health and Safety meeting. Discussed Drilling, project objectives, LFG, air monitoring, physical/chem/bio/ hazards.

6/26/17 Frank Ortiz - Drilling AKA / LMC

Weather: ptly cloudy, warm, expected thunderstorms in pm.

Objectives: Begin Drilling/Soil Boring portion of waste Characterization.

15 "soil" borings will be advanced until native soil or 20 ft bgs max depth. Waste interval will be documented, along with type of waste. A split spoon sampler will be driven at the bottom of the waste to confirm and collect a sample for headspace analysis. Soil Boring log field form includes Blow Counts/Full Description

0900 Moved to southern-most waste characterization boring location:

OLF-SB-01 / SB-1

Frank Ortiz - Drilling 6/26/17

OLF-SB-01/SB-1

Waste Observed at 1 ft bgs - 9.5' bgs. Cobbles noted at 9.5 ft bgs.

Headspace sample:

Depth	Collected Time	PID ppm	Sample Time
11-12	0957	0.0	1018
16-17	1004	0.0	1024
21-22	1010	10.2	1047

1011 - Began pulling up augers. Measured at auger opening with RKI/CGI.

17% LEL max

1015 Began backfilling boring.

1040 Setup at SB-2

6/26/17 Frank Ortiz L.F. - Drilling

OLF-SB-02 / SB-2

No waste observed.
Well-graded sand. Fine-coarse
Few gravel.

Headspace Analysis

Time	Depth	PID (ppm)	Time
1111	11-12	0.0	1155
1121	21-22	0.3	1155

1145 Set up at SB-3 location

OLF-SB-03 / SB-3

1255 Began HSA drilling.
Debris observed at 1.5 ft bgs.
Waste 3-9 ft bgs.
1315
@ 17 ft bgs LFG measured @ auger opening: 22% LEL

@ 22 ft bgs LFG measured @ augers opening: 1% LEL
1328

Frank Ortiz L.F. - Drilling 6/26/17

1324 10% LEL
19.1 O2
11 ppm H2S *
18.5 ppm CO

1326 4 % LEL
19.7 vol % O2
5.0 ppm H2S.
8 ppm

1328 3 % LEL
19.9 % O2 @
1.0 ppm ~~H2S~~ H2S
10 ppm CO

↳ Cleared to work.

Depth	H2S	PID	Time (Coli)	Time (measured)
11-12	5	28.3	1311	1334
21-22.	4	5.1	1319	1337

Frank Ortiz Landfill –

6/26/17 Drilling

1345 Set up at [OLF-SB~~03~~ 04 / SB-4]

Fill to 11 ft bgs ~~(20-30%)~~

11-14 waste (20-30%)

14-18 ft imported fill

18-21 native

TD = 21 ft bgs.

Headspace

Time	Depth	PID (ppm)	
1402	11-12	0.3	1440
1415	16-17	0.0	1445
1421	20-21	0.0	1445

Frank Ortiz Landfill – Drilling 6/26/17

1435 Set up at [OLF-SB-05 / SB-5]

Waste at: 3.5-16.5 ft bgs.

1507

8 % LEL

20.5 % vol O2

14 H2S ppm

311 ppm CO SS sample

1509

4 % LEL PID = 2.9 ppm

20.9 % vol O2

4.5 ppm H2S

106 ppm CO

Cleared to work. SS sample

TD = 21 ft bgs

1517 3 % LEL

20.8 % vol O2 pulling up augers

3 ppm H2S

61 ppm CO.

Time	Depth	PID ppm	LEL %	H2S ppm	Time
1455	11-12	22.9	3	3.5	1524
1500	16.5-17	1.3	0	0.0	1526

~~1530~~

6/26/17 Frank Ortiz Landfill-Drilling

1535 Set up at [OLF-SB-06-SB-6]

Waste/debris at 6 ft bgs. - 10.5 ft bgs

Blow counts exceeding 50/ft.

TD = 21' with SS.

Headspace

Time	Depth	PID (ppm)	LEL	H2S	
1555	10.5-11	0.0	2%	0.0	1615
1605	15.5-16	0.8	0	0.0	1624
1617		0.3	0	0.0	1628

1615

3% LEL
20.8 % vol O2
3.0 ppm H2S
87 ppm CO

1620

6 % LEL
20.2 % vol O2
8.5 ppm H2S
234 ppm CO

Frank Ortiz L.F. - Drilling 6/26/17

1623

3 % LEL
20.4 % vol O2
3.5 ppm H2S
111 ppm CO

1630 Done at SB-6.

Head off Site.

6/27/17 Frank Ortiz LF Waste Ch. Drilling:
0800 AKA/LMC on-Site
EDI on-Site.

LMC and AKA discussed Proposed Boring/sample locations w.r.t. Diane Hgnew (GWQB)'s comments. D.A. e-mailed yesterday and expressed concerns for data gaps near the NE corner, near OTP-16 and OTP-08. The waste characterization test pit @ OTP-08 did extend past the waste into native (no data gap). LMC/AKA discussed adding one SB location to the south of OTP-13/14.

0825 Left message for D.A.
0830 AKA conducted TGHSM.
0840 RKI 2003 calibrated to 50% LEL 25ppm H_2S, 50ppm CO, 12% O_2 + Fresh Air.

Setup at OLF-SB-07/SB-7

Weather: warm, sunny, very light breeze, little clouds.
Objectives: Continue waste characterization SBs

Frank Ortiz LF Drilling 6/27/17
OLF-SB-07/SB-7
Waste from: 2'-13'
TD = 21'

Headspace

Time	Depth	PID	Time
0917	15.5-16	48.6	1005
0929	20.5-21	18.9	1006

1015 Calibrated RKI to 50% v CH_4
Cal'd PID to 100ppm Isobutylene.

6/27/17 Frank Ortiz LF-Drilling

1005 Setup at [OLF-SB-08/ SB-8]

Waste from: 2-7 ft bgs

Headspace

Time	Depth	PID (ppm)	Time
1025	10.5-11	0.0	1045

1040 Move to [SB-9]

OLF-SB-09 Location chosen in the field (not included on proposed initial boring notification). between OTP-13 and OTP-14 locations (test pit total depths 3 ft bgs) in order to confirm that there is no waste within this area. Will drill to ~10 ft bgs. Collect SS @ 5 and 10 ft bgs

TD = 11 ft bgs.

No waste, flared sand at 5 ft bgs

Headspace

Time	Depth	PID (ppm)	Time
1057	5.5-6	0.0	1107
1104	10.5-11	0.0	1132

Frank Ortiz LF-Drilling 6/27/17

1115 Setup at [OLF-SB-10/SB-10]

Waste from: 16 - ; Debris @ 10. *

Headspace

Time	Depth	PID	H2S	Time
1130	5.5-6	28.2	3.5	1149
1150	21.5-22	15.2	NM	1219

See air monitoring log for complete record.

LFG started to exceed action levels when the last flight was advanced (@ 30 ft bgs).

LEL = 5% H2S = 35.5.

The open auger was measured every 2-4 minutes until the LFG levels decreased to safe levels. (LEL = 1% H2S = 3.0 ppm at auger opening). LFG levels are consistent with ambient air within the breathing zone. There is a slight breeze from the ESE.

* Black sand at 5 ft bgs. LFG exceeded action levels again when the last auger flight was being pulled out. This leaves the most LF waste exposed and the largest

6/27/17 Frank Ortiz LF - Drilling

volume of air. LEL = 1% H2S = 13.5 ppm.
Will break for lunch to allow air to dissipate.

TD = 27 ft bgs.

1315 LEL = 4% H2S = 7 ppm
LFG levels below action level.
Proceed w/ removing augers.

1335 @ Set up at OLF-SB-11 / SB-11
Waste Interval = 4 - 25 ft bgs.
Drive refusal at 20 ft bgs.
1354 @ 10 ft bgs LEL = 3%
TD = 29 ft bgs.

Time	Depth	PID (ppm)	~~time~~ H2S	Time
1442	26.5-27	67.7	5.5	1505

1445 Mike Gerber (INTERA) on-Site

1510 Set up at OLF-SB-12 / SB-12

Waste Interval 3.5 - 25 ft bgs.

Frank Ortiz LF - Drilling 6/27/17

Time	Depth	PID (ppm)	H2S	Time
1554	26.5-27	16.5	5	1611
1602		12.6	4	1619

1630 INTERA / EDI offsite.

gw

6/28/17 Frank Ortiz LF - Drilling
0800 AKA on-Site
Mike (MG) on-Site
EDI on-Site

Weather: Warm, sunny, no clouds (haze), lt breeze (5mph from south

Objective: Finish drilling waste characterization borings (4 left) and begin the environmental sample boring location.

0815: AKA conducted TGHSM
0830: RKI GX2003 cal'd to 50ppm CO, 50% LEL, 50% CH4, 25ppm H2S, 12% O2, Fresh Air.
PID cal'd to 100ppm Isobutylene / Fresh Air.
0845 Began drilling at [OFESB-13-SB-13]

Waste from 1-12/13 ft bgs

Headspace

Time	Depth	PID ppm	Time
905	16.5-17	0.3	0935

Frank Ortiz LF - Drilling 6/28/17
0915 Set up at [OLF SB-14 / SB 14]

Time	Depth	PID ppm	Time	H2S
0952	21.5-22	49.5	1008	
0959		10.2	1016	4.5

0954 LFG at auger at 22 ft bgs.
4 % LEL 1.0 ppm H2S
20.9 % O2 32 ppm CO

1004 LFG at top of auger opening:
21 ppm H2S 78% LEL

After 1-2 minutes LFG decreased below action levels

6/28/17 Frank Ortiz LF - Drilling

1018 Setup at [OLF-SB-15 / SB-15]

Very little flagging observed at 5ft "waste fill"

TD at 10ft. SS collected from 10-12:

Time	Depth	PID ppm
1046	11-12	0.0.

1100 Setup at [OLF-SB-16 / SB-16]

Time	Depth	PID
1122	21-22	0.0

1115 LFG peak at 52% CH4 vol. + 8.0 ppm H2S measured at top of auger at TD.

Waste encountered at 6-19 ft bgs

CH4	6	% vol
O2	8.5	% vol.
H2S	7.0	ppm
CO	14 ppm	

} Pulling up augers.

1230 Resume work

Set up at [OLF-SB-17 / SB-17]

First Environmental sample

Frank Ortiz L.F. - Drilling 6/28/17

1250 At 20 ft bgs LFG was: 17% LEL

1315 At 23 ft bgs LFG was 19% LEL, 1.0 ppm H2S

1250 Drill rig had small hydraulic leak (<5 gal) on the mast. Fluid was contained and rig repaired.

SS at 23-25 ft bgs had poor recovery. 15% recovery slough and ~4" of grey brown sand with gravel.

1328 At 25 ft bgs LFG: 1% vol CH4, 3.0 ppm H2S

22-25 low recovery (possible waste).

SS 25-27 sample collected (Below Bottom of waste)

Bottom of waste at 25.5

Time	Depth	PID	H2S	Time
1324	24.5-25	20.7	8.0	1353
1336	25-27	6.8	7.0	1354
1346	27-29	1.1		1407
1356				

6/28/17 Frank Ortiz L.F.-Drilling
1417 Mast up-down @

1425 Set up at [OLF-SB-18 / SB-18]

Headspace

Time	Depth ~~15-17~~ @	PID
1510	15-17	8.8

1515 At 3ft bgs waste (dry, flagging).
waste and waste fill mix to ~ 7ft.
From 7-10 ft more soils
SS at 15ft bgs. (15-17)
low recovery. Hard material (62 blow counts / ft).
SS at 17ft (17-19)
50% recovery 100 blowcounts very coarse sand w/gravel and pulverized bedrock material.

1530 Called Joe Tracy to decide where to move soil boring location.

Frank Ortiz L.F.-Drilling 6/28/17

1545 No call from Joe yet
make decision tomorrow.
At Set up at next location

1600 NA/MB offsite.

6/29/17 Frank Ortiz Landfill - Drilling
0745 AKA on-Site.
MG on-Site

Calibrated RKI GX 2003 to
50 ~~ppm~~ % vol CH_4 50% LEL, 25 ppm H_2S
50 ppm CO, 12 % vol O_2, Fresh air

Calibrated PID to 100 ppm isobutylene.

Weather: warm, no clouds, smoke haze
60s.
0810 - EDI on-Site.
Objectives Continue to drill at environmental
sample boring locations.
Collect soil samples for
VOCs, SVOCs, PAHs, Metals, PCBs,
Nitrate/Nitrite, TKN Ammonia, Hg
0815 Mike conducted TGHSM
0830 Set up at [SB-19/OLF-SB-19]

Waste at 2' — 18.5' bgs

Tight/Hard silty clay reddish brown
at 21 ft bgs.

Frank Ortiz Landfill - Drilling 6/29/17
Headspace for [OLF-SB-19]

Time	Depth	PID (ppm)	H_2S	Time
0910	18.5-19	37.2	5.5	0941
0903	16-17	15.4	5.5	0944
0921	19-21	11.2	4.5	0946
0934	21-23	3.5	7.5	0957
0950	23-25	1.8	5.5	1004
0955	25-27	1.2	7.5	1019
1015	27-28	1.8	1.0	1049

Soil Samples collected from

18.5-21 * Duplicate sample
collected.
0918 Duplicate
0910 Primary time.
Duplicate ID = OLF-SB-119-18.5-21
1015 Sample: OLF-SB-19-27-28.
1050 Setup at [OLF-SB-20/SB-20]

Waste (<30%) at .3 ft bgs
Driller thought we were out of waste
at 9.5 ft bgs. SS at 10 ft bgs.
Gravel and pulverized material.
Very hard BC over 50 ~~ft~~ ft.
@ ~~0.4 ft~~
0.3 ft

6/29/17 Frank Ortiz LF-Drilling

SB-20 cont'd.

SS at 12-12.5 ft 50BC for 0.3 ft

1200 Setup at OLF-SB-21/SB-21

1205 Diane Agnew (GWQB) on site

Discussed SB-20. Will try another boring ~25 ft to the West.

1239 Started drilling; Headspace:

Time	Depth	PID	H2S
1257	5-7	0.0	6.5

Bottom of waste at 4.5-5 ft bgs
SS at 5 ft BGS showed native, pulverized bed rock material. (Weathered, semi-competent pinkish brown).
SS sampling continuously every 2 ft until refusal/15 ft bgs.
Very high blowcounts (>50/ft).

Frank Ortiz L.F. - Drilling AICH/MG 6/29/17
Headspace:

Time	Depth	PID	H2S	Time
1303	~~9-11~~ 7-9	0.0	11.0	1318
1310	9-11	2.8	10.5	1350
1329	11-13	23	9.5	1350

1330 Diane off-site.
Samples collected from 5-7 ft (below bottom of waste)
Sample ID: OLF-SB-21-5-7
Time: 1257
OLF-SB-21-11-13

1350 Set up at OLF-SB-22/SB22

Waste at: 3-8.5 ft

LFG: .2% LEL ~~10~~ 4.5 ppm H2S
11.4 O2 20 ppm CO

6/29/17 Frank Ortiz L.F. - Drilling AKA/MG

OLF-SB-22/SB-22

Headspace

Time	Depth	PID	H2S	
1415	7-9	1.3	11.0	1430
1428	9-11	1.4	NM	1448
1456	11-13	0.4	NM	1448

Samples collected at 9-11 and 11-13.

Sample IDs:

OLF-SB-22-11-13 Time: 1456

~~OLF-SB-9-~~ Time: 1415

SB-22-9-11

1550 Set up at OLF-SB-23/SB-23. Based on surrounding waste thickness/TD, will collect SS at 5 ft bgs.

At 7-9 ft bgs, the shoe of the SS sampler had some blacktar along with waste.

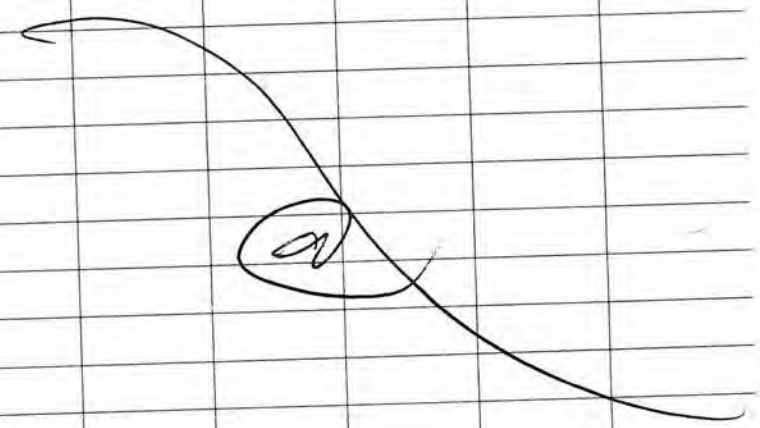
Frank Ortiz L.F. - Drilling AKA/MG 6/29/17

Headspace

Time	Depth	PID ppm	
1533	9-11	43.8	- blacktar on soils.

Very little recovery in SS. Attempted to sample to see bottom of waste from 5-15 ft (continuous 12 ft SS)

1550 Moved rig inside dog park fence, packed up.



6/30/17 Frank Ortiz L.F. - Drilling AKA/MG

0740 AKA on-site
0745 MG on-site
0755 EDI on-site.

RKI calibrated to 50% LEL + CH4 vol.
25ppm H2S, 50ppm CO, 12% O2 vol.
Fresh air
PID calibrated to 100 ppm isobutylene
+ Fresh air.

TGHSM conducted by AKA.
Discussed work area, objectives for the day, LFG, and emergency procedures.

0835 set up at [OLF-SB-24/SB-24]
Location approx 10 ft S from SB-23 location.
Waste from 1-5.5 ft bgs.
Sample collected at 7-9 ft bgs at 0900. (Just below waste).
OLF-SB-24-7-9
Sample collected at 13-15 ft at 0925 OLF-SB-24-13-15

Frank Ortiz L.F. - Drilling AKA/MG 6/30/17

Headspace:

Time	Depth	PID	H2S
852	5-7	1.0	4.0
859	7-9	2.6	5.5
0918	11-13	1.5	6.5
925	13-15	1.0	0.0

0930 take down fence at SB-24
TD = 15 Samples (SS) = 5.

0945 Set up at [OLF-SB-25]
* First soil vapor well location
Waste encountered at 1ft - 21ft bgs.
~~TD = 15~~ sample #s = 5

Headspace

	PID	H2S
15-17	33.3	6.0
17-19	22.6	8.5
21-23	7.5	4.0

6/30/17 Frank Ortiz L.F. - Drilling AKA/MG

1115 - Sample collected at 21-23 ft.

Some rock fragments in SS.

1215 Began drilling again

At 30-32 ft the SS had silty sands. Very dense material (over 60+ Blow count over a foot.).

LFG Measurements

Time	Depth	LEL	H2S
1313	35	0	20.5
↳ decreased to			3.0 ✓ to work

Frank Ortiz L.F. - Drilling AKA/MG 6/30/17

Headspace Readings.

Time	Depth	PID	H2S	LEL
1300	30-32	3.9	11.0	0
1323	35-37	20.4	20.5	3
1355	40-42	51.5	13.0	1
1513	45-47	24.6	15.6	1
		SS = 13		

1427

H2S levels above action levels. (100 ppm) See Air monitoring log.

1500 Resumed drilling to secure hole and protect public from potential H2S exposure.

Drilled auger to ~ 4" below ground surface. Covered auger opening with duct tape. Covered duct tape with plastic bucket and buried with clean fill.

1520 Off site

AKA/MG

7/5/17 Frank Ortiz L.F. - Drilling / SV Well Install

0750 AKA/MG On-Site.

Weather: Warm, clear, light breeze from south (<10 mph).

Objectives: Complete drilling at OLF-SB-25 (1.5 more feet), install nested wells. (See Diagram). Begin drilling at next soil vapor well location.

RKI QX 2003 Calibrated to 50% CH4 vol/LEL, 50 ppm CO, 25 ppm H2S, 12% O2 vol. Fresh Air.
PID Calibrated to 100 ppm isobutylene.

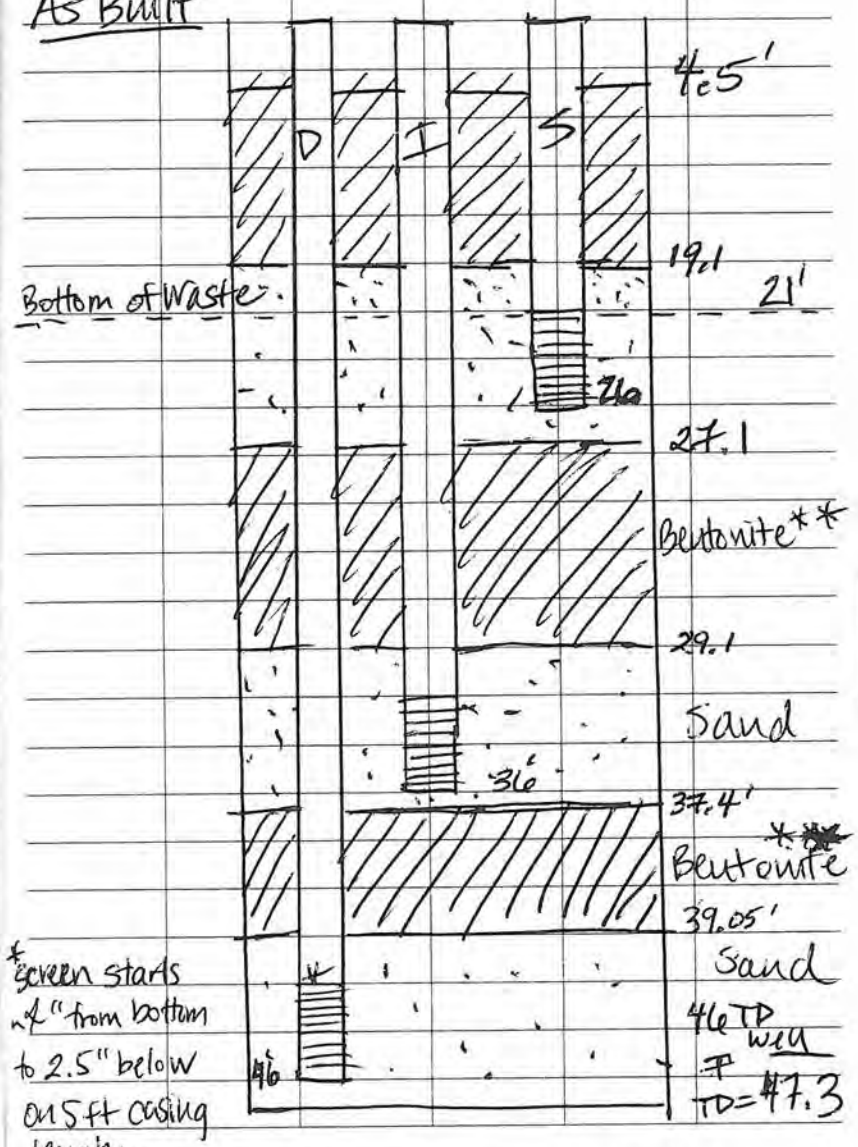
0815 EDI on-Site.
AKA conducted TGHSM.

0830 Set up at OLF-SB-25.
Set up a large box fan and monitored with RKI prior to removing tape. No LFG ~~re~~ measured.

AKA/MG

Frank Ortiz L.F. Drilling / SV Well Install 7/5/17
OLF-SB-25 / SB-5 / SV-1

As Built



** Hydrated with gal H2O

7/5/17 Frank Ortiz L.F. Drilling / SV well Install

0850 Drilled down to total depth = 47.3 bgs

Began well installation.
Ensure 1ft sand below screen/well and 2 ft above screen/before seal.

0956 First Bentonite layer hydrated.

1145 Finished installing nested wells. Tagged bottom of each well and added well cap with valve and barbed nipple labeled with "S", "I", and "D" for shallow, Intermediate, and deep.

1200 Installing metal monument well vault with ~3 ft stick up for the well casing(s). Installed lock on monument.

1215 Start setting up at [OLF-SB-26]

1300 Began drilling
Waste from 2-15 ft bgs.

7/5/17

Frank Ortiz L.F. Drilling / SV Well Install

1330 SS sample collected for analysis (Primary and Duplicate).

Primary labeled:
OLF-SB-26-15-17 Time 1330

Duplicate:
OLF-SB-126-15-17 Time 1340

Nested wells to be set at:
Bottom of waste + 5 = 20 ft
" well + 10 = 30 ft
" " + 20 = 40 ft

TD = → + 1 foot sand.
Collect sample at 40-42
Time 1425

Headspace

Depth	PID	H2S	Time
15-17	3.1	4.0	1335
30-32	5.4	3.0	1350
35-37	4.6	3.5	1410
40-41	1.9	3.0	1425

Frank Ortiz L.F. Drilling / SV Well Install
7/5/17 AKA IMG

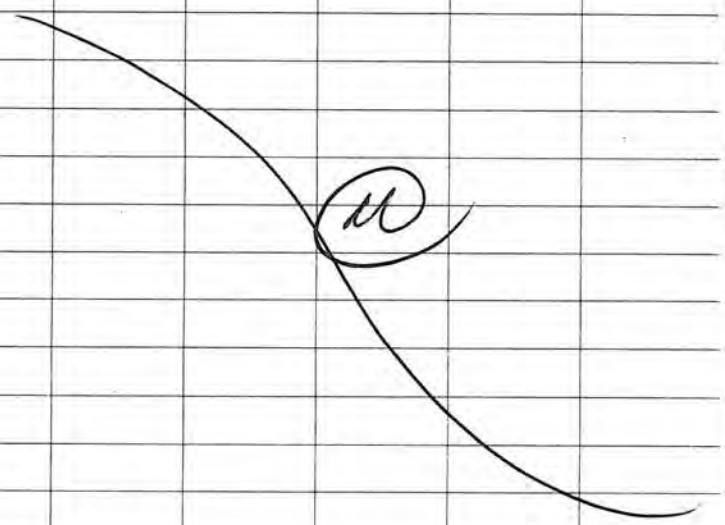
1435 At ~~well~~ Boring TD = 41 ft bgs.

Will set Deep well at 40 ft bgs.

See As-Built on following page.

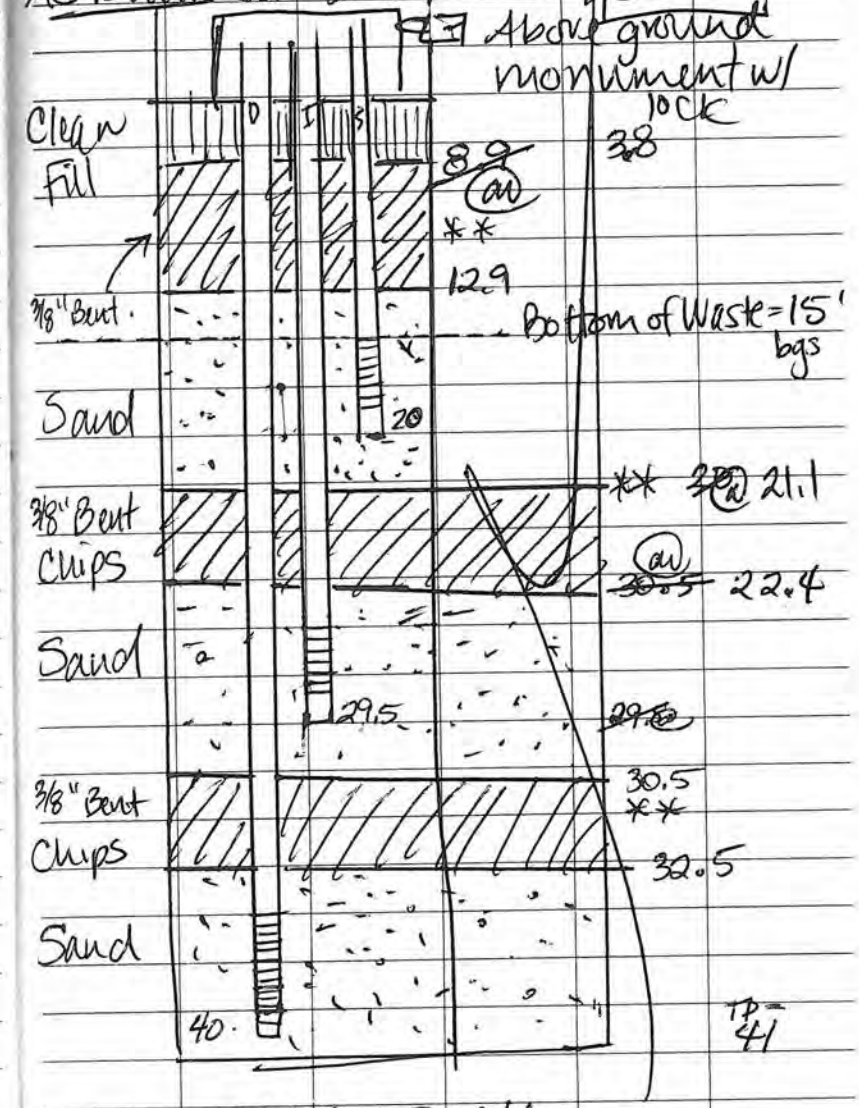
auger bonnett bolted to top of open auger and rig left at SV-2 location.

1630 Off-Site



Frank Ortiz L.F. Drilling / SV Well Install 7/5/17

As Built. AF-SB-26 / SB/26 / SV-2



** - Added 5 gal H2O

AKA / MG

7/6/17 Frank Ortiz L.F.-Drilling / SV Well install
0747 AKA and MG on-Site.
0750 EDI on-Site.

weather: Warm, Clear. 70s

Objectives: Install monument at [SV-2]. Drill at OLF-SB-27, install last soil vapor monitoring well. Collect soil samples and equipment rinsate sample.

0805 AKA Conducted TOHSM Discussed LFG, traffic on-Site, slips/trips/falls, working from heights.

0800 Calibrated: RKI 2003 to 50% CH4 vol and LEL, 50ppm CO, 25ppm H2S, 12% vol O2 and Fresh air. PID to 100ppm isobutylene and Fresh air.

0815 Began completing [SV-2]

Frank Ortiz L.F. Drilling / SV Well install 7/6/17
0900 Set up at [OLF-SB-27 / SB-27]
0830 Mike off site
0900 Mike back on-Site

0930 EDI off Site to get water ~50gal.

1030 EDI back on-Site

1033 Began drilling.

Waste observed: 3 -17 ft bgs

Sample collected at 18-19 ft.
OLF-SB-27-18-19 @ 1100
~~Sample collected at~~ @
Headspace

Time	Depth	PID	H2S
1051	15-17	3.3	7.0
1100	17-19	0.0	8.0
1138	30-32	0.0	6.0
1116	25-27	0.0	7.0
1157	35-37	10.6	5.5
1209	40-42	0.0	NM

AKA MG

7/6/17 Frank Ortiz Landfill-Drilling/SV Well Install.

LEG Monitoring:

Depth	LEL	H2S	CO	O2	
35	0	3.0	25	20.9	top of auger
40	0	11.0	211	20.0	in auger
43	0	15.5	265	20.5	in auger

1200 OLF-SB-27-35-37 sampled

1220 Break for lunch

1115 Field Blank aqueous sample collected "OLF-FB)"

1310 Began well installation.

1320 Equipment Rinsate aqueous sample collected. OLF-ER

1415 Second Bentonite layer.

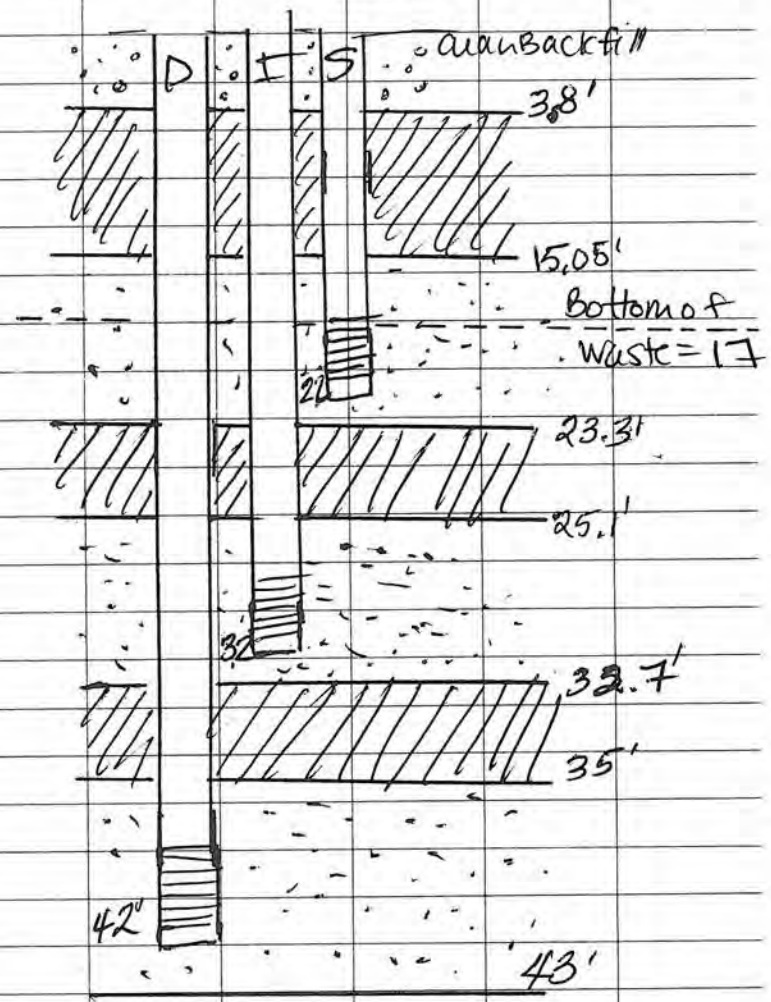
AKA/MG

Frank Ortiz Landfill-Drilling/SV well Install 7/6/17

AS BUILT

OLF-SB-27/SB-27

SV-3



7/6/17

1420 Diane (NMED) on-site.

1500 LFG Measurement:

	Peak in well.		
LEL	O2	H2S	CO
14	17.8	73.5	500

1505 Started cutting surface to install apron and vault.

1530 Diane off-site.

1605 Finished with vault concrete completion.

1630 Off-site.

M

Frank Ortiz Landfill-Survey 7/7/17

0900 AKA on-site
Jeff and Joseph from WayJohn on-site

Weather: Warm ~75°, partly cloudy.

Objectives: Obtain survey data points (x,y,z) at all test pit and soil boring locations.

0935 Labeled SV-3 IDW drum in parking lot. Drum located on western fence edge.

Labeled as "Non Hazardous Waste"
Shipper City of Santa Fe

Contents Investigation Derived Waste Soils and Mixed MSW.

0905 WayJohn having connection problems with their survey EQ.

7/7/17 Frank Ortiz Landfill - Survey

1015 Jeff called back in ABQ office to get different equipment

Labelled drums at SV-1 / SV-27

1100 Jeremy from Way John on-Site with new station

starting to set up new station.

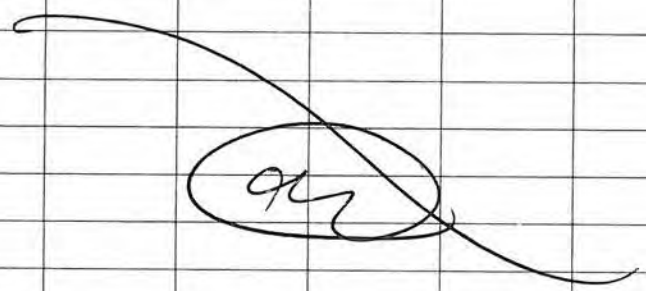
1130 Ready to begin.

1330 Surveyed 51 locations.

24 Test Pits

27 Soil Borings.

1345 AKA offsite



7/13/17 City of SF Frank Ortiz
Land fill :
S. Marcillo & M. Gerber

Objectives: Sample 9 soil vapor wells w/ Summa canisters.

Equipment: PID, CGI, Escort ELF
Summa Canisters.

Weather: Partly Cloudy, 75°F-90°F
light winds.

1000 - Calibrated PID + CGI
prior to site activities.

Set up on Soil Vapor Well
SV-01-S
can # - ~~N1754~~ N1674
~~[illegible]~~ -
Initial - 23.0
Final - 1.0
Sample time - 1315

Final Readings

H_2S (ppm)	CO (ppm)	LEL (%)	O_2 (%)	PID (ppm)	Vol (L)
0.0	143	7	0.7	18.7	125

7/13/17 COS Ortiz soil gas sampling
· Moved to SV-01-I
Can # N1915
Initial pressure (mmHg): 24.0
Final pressure (mmHg): 0.0
Sample time: 1356

Final readings

H_2S (ppm)	CO (ppm)	LEL (%)	O_2 (%)	PID (ppm)	Vol (L)
0.0	119	40	3.3	12.5	17

*Collected Duplicate
Sample ID
SV-04-I
Sample time
1115 *
Initial: 23.0
Final: 3.5
Can # N1759

Moved to SV-01-D
Can #: N1813
Initial Pressure (mmHg): ~~15.0~~ 20.0
Final pressure (mmHg): 4.5
Sample time: 1442

Final Readings

H_2S (ppm)	CO (ppm)	LEL (%)	O_2 (%)	PID (ppm)	VOL (L)
0.0	40	0.0	1.7	12.6	22.0

Moved to SV-02-S @ 1515
Can # N1634
Initial Pressure (mmHg): 24.0
Final Pressure (mmHg) 3.0
Sample time: 1545

H_2S (ppm)	CO (ppm)	LEL (%)	O_2 (%)	PID (ppm)	VOL (L)
0	32	0	1.1	5.8	9.5

7/13/17 COSF Ortiz soil gas sampling

- Moved to SV-02-I
  can# N1908
Initial pressure (mmHg): 23.0
final pressure (mmHg) 3.0
Sample time: 1625
final readings: See below

1145: MPG onsite, to observe removal of 9 drums of soil cuttings & trash from Ortiz landfill generated during soil vapor well installation.
AES arrives with 3 employees box truck, lift gate and drum cart.
- Load 3 55-gallon drums and remove from site.
AES labelled drums w/ their own Non-Haz labels.
12:15 AES off site w/ Drums.

SV-02-I

H2S	CO (ppm)	LEL (%)	O2 (%)	PID (ppm)	VOL (L)
0	49	99	0.9	7.5	14

7/13/17 COSF Ortiz soil gas sampling

- Moved to SV-02-D
  can# N1898
Initial pressure (mmHg): 23.0
Final pressure (mmHg): 0.0
Sample time: 1240
final reading,

H2S (ppm)	CO (ppm)	LEL (%)	O2 (%)	PID (ppm)	VOL (L)
0.0	45	99	1.4	2.1	19

- Moved to SV-03-S
  can#: N 1738
Initial pressure (mmHg): 23
final pressure (mmHg): 3.0
Sample time: 1320
final readings

H2S (ppm)	CO (ppm)	LEL (%)	O2 (%)	PID (ppm)	Vol (L)
0.0	262	38	4.7	3.7	10.5

- Moved to SV-03-I
  can# ~~N1850~~ N1786 Initial press (mmHg): 23.0
final pressure (mmHg): 0.0 Sample time: 1415
final readings

H2S (ppm)	CO (ppm)	LEL (%)	O2 (%)	PID (ppm)	Vol (L)
0.0	82	0	1.9	3.5	15

7/13/17 COSF Soil gas Sampling

SV-03-D

Can #: N 1758

Initial pressure (mmHg): 23.0

Final pressure (mmHg): 1.0

Sample time: 1515

final readings

H_2S (ppm)	CO (ppm)	LEL (%)	O_2 (%)	PID (ppm)	VOl (L)
0.0	133	24	3.1	3.2	200

7/13/17

1645 = Completed sampling SV-01-S, SV-01-I, SV-01-D, SV-02-S, + SV-02-I.

Strong Thunderstorms, lightning heavy rain.

- Break down equipment, load samples.

1700 Depart Site.

[signature]
7-13-17

7/14/17 COSF Soil Gas Sampling
Ortiz Landfill

11:00 On site. Dropping to begin sampling at 12:00.

11:30 Calibrate PID + CGI - both passed.

weather: Cloudy, Northern Skies - black looks like rain.

- Will use entry's for wells on previous pages.

12:00 Begin sampling SV-02-D

1545 Completed sampling SV wells on site.
Completed = SV-02-D, SV-03-S, SV-03-I and SV-03-D.

- Removed signs from Frank Ortiz Dog Park. They are in the Santa Fe office.

1600 Depart Site for lab.

[signature]
7-14-17

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DATE / TIME:	7/13/17
PROJECT:	Santa Fe Ortiz Land fill
JOB NO. :	CUSFE - C001 - ORTIZ
REC / SAMP BY:	MG / EA

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF SA-25	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-1 Shallow

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:
☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch
☒ Other 1 inch

Total Length of Tubing/Casing: 26'

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD
☐ Landtec
☐ Peristaltic pump
☒ Other - Type: Escort Elf

Well Depth: 26'

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 12.03 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME
1251 START 1315 STOP 24 ELAPSED

PURGE RATE
Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME
12.5 Liters

FIELD PARAMETER MEASUREMENT

Time	Minutes	FLOW	Vacuum	H_2S	CO	LEL	O_2	PID			
00:00		L/min		ppm	ppm	%	%	ppm			
1251 ~~0:00~~	0:00	0.5		0	133	26	11.8				
1255	4:00	0.5		0	188	5	0.7				
1259	8:00	0.5		0	157	5	0.7				
1303	12:00	0.5		0	136	6	0.7				
1307	16:00	0.5		0	123	6	0.7				
1311	20:00	0.5		0	138	6	0.7				
1315	24:00	0.5		0	143	7	0.7	18.7			

Observations/Note:
Sample ID = SV-01-S

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE
☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-1	Shallow	N1674		7/13/17	1315	26	6 Liters		SV-	01-	S

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DATE / TIME:	7/13/17
PROJECT:	Santa Fe Ortiz Landfill
JOB NO. :	C0SFE-C001-ORTIZ
REC / SAMP BY:	MB/EM

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF-SD-25	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-1 Intermediate

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:
☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch
☒ Other 1-inch

Total Length of Tubing/Casing: 36'

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD
☐ Landtec
☐ Peristaltic pump
☐ Other - Type: Escort ELF

Well Depth: 36'

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 16.68 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME
1317 START 1357 STOP 39 ELAPSED

PURGE RATE
Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME
17 Liters

FIELD PARAMETER MEASUREMENT

Time	Minutes	FLOW	Vacuum	H_2S	CO	LEL	O_2	PID			
00:00		L/min		ppm	ppm	%	%	ppm			
13:33	0:00	0.5		0.0	286	42	8.4				
13:29	6:00	0.5		0.0	188	51	5.3				
13:35	12:00	0.5		0.0	150	46	5.4				
13:41	18:00	0.5		0.0	130	34	4.7				
13:47	24:00	0.5		0.0	130	41	3.3				
13:53	30:00	0.5		0.0	123	41	3.4				
13:56	33:00	0.5		0.0	119	40	3.3	12.5			

Observations/Note:

SV-01 - Intermediate

11:15 Duplicate sample collected SV-04 - Intermediate

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE
☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-01	Intermed	N1915		7/19/17	1350	36'	6 liters				

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DATE / TIME:	7/19/17
PROJECT:	Santa Fe Ortiz Dog park
JOB NO. :	COSFE - C001 ORTIZ
REC / SAMP BY:	MG / EU

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF SB-25	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-1 Deep

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:

☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch

☒ Other 1-inch

Total Length of Tubing/Casing: 46'

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD

☐ Landtec

☐ Peristaltic pump

☒ Other - Type: Escort Elf

Well Depth: 46'

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 21.3 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME

1400 START 1442 STOP 42 ELAPSED

PURGE RATE

Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME

22 Liters

FIELD PARAMETER MEASUREMENT

Time	Minutes	FLOW	Vacuum	H2S	CO	LEL	O2	PID			
00:00		L/min		ppm	ppm	%	%	ppm			
14:00	0:00	0.5		0	65	62	5				
14:07	7:00	0.5		0	63	42	3.6				
14:14	14:00	0.5		0	57	37	3.2				
14:21	21:00	0.5		0	46	36	2.9				
14:28	28:00	0.5		0	44	23	2.4				
14:35	35:00	0.5		0	43	10	2.5				
14:42	42:00	0.5		0	40	0	1.7	12.6			

Observations/Note:

SV-01 - Deep

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE

☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-01	Deep	N1813		7/19/17	1442	46'	6 liters				

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DATE / TIME:	7/19/17
PROJECT:	Santa Fe
JOB NO. :	COSFE. C001 ORTIZ
REC / SAMP BY:	MG / EM

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF SV-26	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-2 Shallow

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:

☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch

☒ Other 1-inch

Total Length of Tubing/Casing: 20'

Number of Well Volumes to be Purged (# Vols): 3 **Well Depth:** 20'

PURGING METHOD

☐ Landtec

☐ Peristaltic pump

☒ Other - Type: Escort EIP

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 9.24 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME

1524 START 1544 STOP 20 ELAPSED

PURGE RATE

Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME

19 Liters

FIELD PARAMETER MEASUREMENT

Time	Minutes	FLOW	Vacuum	H_2S	CO	LEL	O_2	PID			
00:00		L/min		ppm	ppm	%	%	ppm			
1524	0	0.5		0	31	78	7.6				
1528	4	0.5		0	13	0	6.0				
1532	8	0.5		0	17	0	0.9				
1536	12	0.5		0	24	0	0.9				
1540	16	0.5		0	30	0	0.9				
1544	20	0.5		0	32	0	1.1	5.8			

Observations/Note:

SV-02 - Shallow

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE

☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-02	Shallow	N1634		7/19/17	1545	20'	6 liters				

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PROJECT:	Santa Fe
JOB NO. :	COSFE - COOL ORSIZ
REC / SAMP BY:	MG / EM

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF-SD-26	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-2 Intermediate

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:
☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch
☒ Other 1-inch

Total Length of Tubing/Casing: 29.5'

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD
☐ Landtec
☐ Peristaltic pump
☒ Other - Type: Escort ELF

Well Depth: 29.5

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 13.8 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME
1550 START 1620 STOP 30 ELAPSED

PURGE RATE
Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME
28 Liters

FIELD PARAMETER MEASUREMENT

Time 00:00	Minutes	FLOW L/min	Vacuum	H2S ppm	CO ppm	LEL %	O2 %	PID ppm			
1550	0	0.5		0	243	62	13.7				
1555	5	0.5		0	65	99	1.2				
1600	10	0.5		0	55	99	1.2				
1605	15	0.5		0	49	99	0.9				
1610	20	0.5		0	50	99	0.8				
1615	25	0.5		0	50	99	0.8				
1620	28	0.5		0	49	99	0.9	7.5			

Observations/Note:
SV-02 - Intermediate

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE
☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-02	Int.	N1908		7/19/17	1625	29.5	6 liters				

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PROJECT:	Santa Fe
JOB NO. :	CUFFE . C001 0001
REC / SAMP BY:	MB / EM

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF - SV - 26	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV - 2 Deep

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:
☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch
☒ Other 1-inch

Total Length of Tubing/Casing: 40

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD
☐ Landtec
☐ Peristaltic pump
☐ Other - Type: Ejector Fit

Well Depth: 40'

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 18.6 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME
1200 START 1238 STOP 38 ELAPSED

PURGE RATE
Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME
19 Liters

FIELD PARAMETER MEASUREMENT

Time	Minutes	FLOW	Vacuum	H_2S	CO	LEL	O_2	PID			
00:00		L/min		ppm	ppm	ppm %	%	ppm			
1200	0	0.5		0.0	36	27	16.9				
1206	6	0.5		0.0	65	99	8.3				
1212	12	0.5		0.0	48	99	1.5				
1218	18	0.5		0.0	55	99	1.4				
1224	24	0.5		0.0	50	99	1.5				
1230	30	0.5		0.0	47	99	1.4				
1236	36	0.5		0.0	46	99	1.4				
1238	38	0.5		0.0	45	99	1.4	2.1			

Observations/Note:

SV-02-D

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE
☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-02	Deep	N18918		7/14/17	1240	40'	6 liters				

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PROJECT:	Santa Fe
JOB NO. :	COF JE - C001 ORTIZ
REC / SAMP BY:	MG / EM

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF JB-27	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-3 Shallow

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:

☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch

☒ Other liner

Total Length of Tubing/Casing: 22'

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD

☐ Landtec

☐ Peristaltic pump

☒ Other - Type: Ejector Elf

Well Depth: 22'

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 10.2 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME

1256 START 1312 STOP 21 ELAPSED

PURGE RATE

Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME

10.5 Liters

FIELD PARAMETER MEASUREMENT

Time 00:00	Minutes	FLOW L/min	Vacuum	H_2S ppm	CO ppm	LEL %	O_2 %	PID ppm			
1256	0	0.5		0.0	23	70	18.9				
1259	3	0.5		0.0	289	40	7.2				
1302	6	0.5		0.0	287	42	6.5				
1305	9	0.5		0.0	285	45	5.8				
1308	12	0.5		0.0	285	47	5.5				
1311	15	0.5		0.0	268	47	5.1				
1314	18	0.5		0.0	262	53	4.9				
1317	21	0.5		0.0	262	38	4.7				

Observations/Note:

SV-03-S

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE

☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series: _____

Sample/Location ID	Contain ID	Date	Time	Depth	Volume				Comments
SV-03-S	N 1788	7/14/17	1320	22'	6 liters				

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PROJECT:	Santa Fe
JOB NO. :	CO FSE . C0001 ORTIZ
REC / SAMP BY:	MG / EM

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF SB-27	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-3 Intermediate

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:

☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch

☒ Other 1-inch

Total Length of Tubing/Casing: 32'

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD

☐ Landtec

☐ Peristaltic pump

☒ Other - Type: Escort + ELF

Well Depth: 32

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 14.8 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME

1340 START 1410 STOP 30 ELAPSED

PURGE RATE

Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME

15 Liters

FIELD PARAMETER MEASUREMENT

Time 00:00	Minutes	FLOW L/min	Vacuum	H2S ppm	CO ppm	LEL %	O2 %	PID ppm			
1340	0	0.5		0.0	24	13	15.5				
1345	5	0.5		0.0	43	0	1.5				
1350	10	0.5		0.0	48	6	1.6				
1355	15	0.5		0.0	52	3	1.8				
1400	20	0.5		0.0	57	0	1.3				
1405	25	0.5		0.0	71	0	1.8				
1410	30	0.5		0.0	82	0	1.9	3.5			

Observations/Note:

SV-03 - I

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE

☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-03	- I	N 1786		7/14/17	1415	32'	6 (4.)				

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DATE / TIME:	7/12/17
PROJECT:	Santa Fe
JOB NO. :	COF SE : C001 ORTIZ
REC / SAMP BY:	MG / EM

SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	☒ Monitor	☐ Extraction	☐ Vapor Pin	☐ Other
OLF SB-27	WELL MATERIAL:	☐ Stainless Steel	☐ Poly / Implant	☐ Teflon	☒ Other PVC

SV-3 Deep

WELL OR PRT PURGING & SAMPLING LOG

PURGE VOLUME

Casing/Tubing Inner Diameter:

☐ 1/4-inch ☐ 3/8-inch ☐ 1/2-inch ☐ 3/4-inch

☒ Other 1-inch

Total Length of Tubing/Casing: 42

Number of Well Volumes to be Purged (# Vols): 3

PURGING METHOD

☐ Landtec

☐ Peristaltic pump

☒ Other - Type: Escort ELF

Well Depth: 42'

PURGE VOLUME CALCULATION: (Tubing Volume/ft x length) X (# Purge Volumes) = 19.5 CC or Liters
(Refer to Tubing / Hole Volume Table)

PURGE TIME

1425 START 1505 STOP 40 ELAPSED

PURGE RATE

Initial 0.5 L/pm Final 0.5 L/pm

ACTUAL PURGE VOLUME

20 Liters

FIELD PARAMETER MEASUREMENT

Time 00:00	Minutes	FLOW L/min	Vacuum	H_2S ppm	CO ppm	LEL %	O_2 %	PID ppm			
14:25	0	0.5		0.0	39	6	16.7				
14:31	6	0.5		0.0	63	3	17.5				
14:37	12	0.5		0.0	118	43	3.7				
14:43	18	0.5		0.0	117	36	3.4				
14:49	24	0.5		0.0	127	36	3.4				
14:55	30	0.5		0.0	131	32	3.2				
15:01	36	0.5		0.0	131	31	3.2				
15:05	40	0.5		0.0	133	24	3.1	32			

Observations/Note:

SV-03-D

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE

☐ Tedlar Bag ☐ Sorption Tubes ☒ Summa Canister ☐ Septum Bottle

SAMPLES Sample Series:

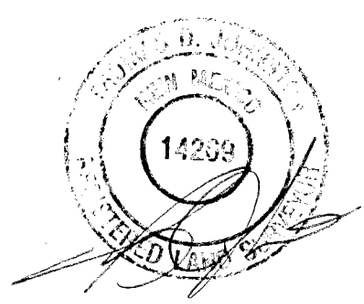
Sample/Location ID		Contain ID		Date	Time	Depth	Volume			Comments	
SV-03	- D	N17	58	7/14/17	1515	42'	6 liters				

APPENDIX D

Soil Boring, Test Pit and Soil Vapor Monitoring Well Survey

Wayjohn Surveying Inc. 330 Louisiana Blvd NE Albuquerque, NM 87108
Monitor Well Survey Frank Ortiz Landfill, Santa Fe, NM field survey 7/7/2017
x and y are modified New Mexico State Plane Grid (NAD 83 Central Zone) based upon static GPS observations and an NGS OPUS Solution.

Monitor Well	y (Northing)	x (Easting)	z (Elevation)
OTP 01	1707833.31	1724120.54	6972.65
OTP 02	1707655.16	1724294.06	6990.52
OTP 03	1707879.33	1724295.92	6979.22
OTP 06	1708120.84	1724103.65	6969.33
OTP 07	1708558.79	1724279.87	6976.54
OTP 08	1708113.89	1724285.65	6979.92
OTP 09	1708353.54	1724268.90	6982.33
OTP 10	1708563.15	1724754.80	7003.45
OTP 10	1708561.03	1724752.22	7003.01
OTP 11	1708786.99	1724549.78	6997.95
OTP 12	1709037.60	1725219.31	7015.14
OTP 13	1708820.15	1725437.78	7022.34
OTP 14	1708810.76	1725221.22	7015.44
OTP 15	1708585.42	1724973.01	7011.83
OTP 16	1708348.49	1724750.70	7002.99
OTP 17	1708352.45	1724516.58	6985.86
OTP 18	1709037.91	1724982.53	7007.02
OTP 19	1708343.99	1724996.91	7012.23
OTP 20	1708087.74	1724742.58	7003.00
OTP 21	1708814.44	1724969.78	7010.61
OTP 22	1708101.63	1724435.53	6987.32
OTP 23	1708824.16	1724742.24	7004.37
OTP 24	1708577.07	1724474.33	6992.58
OTP 4	1707634.88	1724550.66	7001.29
OTP 5	1707916.70	1724515.64	6990.29
SB 01	1707810.13	1724006.23	6965.54
SB 02	1707776.20	1724528.30	6990.90
SB 03	1708403.43	1724399.89	6988.13
SB 04	1708075.91	1724595.62	6999.10
SB 05	1708435.06	1724749.56	7002.64
SB 06	1708568.26	1724870.29	7009.26
SB 07	1708579.73	1724726.80	7001.90
SB 08	1708669.84	1725068.87	7013.72
SB 09	1708719.64	1725308.64	7017.45
SB 10	1709066.23	1725170.47	7013.77
SB 11	1708624.19	1724513.51	6995.04
SB 12	1708554.15	1724619.38	6998.81
SB 13	1708731.92	1724592.08	6999.23
SB 14	1708741.77	1724652.35	7000.78
SB 15	1708884.76	1724784.58	7005.43
SB 16	1708886.81	1724914.18	7007.80
SB 17	1708708.42	1724755.57	7003.17
SB 18	1708917.44	1725089.76	7011.64
SB 19	1708760.04	1724915.80	7009.44
SB 20	1708472.98	1724899.17	7009.77
SB 21	1708218.48	1724384.71	6985.68
SB 22	1708496.01	1724874.38	7009.39
SB 23	1707940.81	1724115.15	6970.92
SB 24	1707932.32	1724106.39	6970.11
SB 25	1708022.19	1724253.14	6977.27
SB 26	1708482.09	1724495.81	6993.51
SB 27	1708994.68	1724952.84	7007.11
Control Points			
CP 1 4 RBR	1708868.42	1724949.90	7009.30
CP 2 4 RBR	1708739.81	1724570.70	6999.99
CP 3 4 RBR	1708463.67	1725006.08	7013.08



7.13.17

APPENDIX E

Laboratory Analytical Reports -Soil Sample Results

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 20, 2017

Joseph Tracy
Intera, Inc.
6000 Uptown Boulevard, NE Suite 220
Albuquerque, NM 87110
TEL: (505) 246-1600
FAX (505) 246-2600

RE: Frank Ortiz Landfill Waste Characterization OrderNo.: 1706F94

Dear Joseph Tracy:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/29/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1706F94**
Date Reported: **7/20/2017**

CLIENT: Intera, Inc.
Client Sample ID: OLF-SB-17-25-27
Project: Frank Ortiz Landfill Waste Characterizati
Collection Date: 6/28/2017 1:35:00 PM
Lab ID: 1706F94-001 **Matrix:** SOIL
Received Date: 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/12/2017 12:34:43 PM	32761
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/12/2017 12:34:43 PM	32761
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	ND	50		mg/Kg	1	6/30/2017 5:23:00 PM	32589
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.031		mg/Kg	1	7/7/2017 12:12:07 PM	32673
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	6500	140		mg/Kg	50	7/13/2017 1:05:59 PM	32636
Arsenic	ND	12		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Barium	130	0.48		mg/Kg	5	7/17/2017 11:07:29 AM	32636
Boron	ND	9.6		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Cadmium	ND	0.48		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Chromium	5.7	1.4		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Cobalt	3.3	1.4		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Copper	11	1.4		mg/Kg	5	7/17/2017 11:07:29 AM	32636
Iron	6600	120		mg/Kg	50	7/13/2017 1:05:59 PM	32636
Lead	4.1	1.2		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Manganese	460	0.48		mg/Kg	5	7/17/2017 11:07:29 AM	32636
Molybdenum	ND	1.9		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Nickel	8.0	2.4		mg/Kg	5	7/17/2017 11:07:29 AM	32636
Selenium	ND	12		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Silver	ND	1.2		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Uranium	ND	24		mg/Kg	5	7/13/2017 11:12:08 AM	32636
Zinc	16	12		mg/Kg	5	7/17/2017 11:07:29 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/11/2017 8:15:00 AM	32629
Aroclor 1221	ND	0.020		mg/Kg	1	7/11/2017 8:15:00 AM	32629
Aroclor 1232	ND	0.020		mg/Kg	1	7/11/2017 8:15:00 AM	32629
Aroclor 1242	ND	0.020		mg/Kg	1	7/11/2017 8:15:00 AM	32629
Aroclor 1248	ND	0.020		mg/Kg	1	7/11/2017 8:15:00 AM	32629
Aroclor 1254	ND	0.020		mg/Kg	1	7/11/2017 8:15:00 AM	32629
Aroclor 1260	ND	0.020		mg/Kg	1	7/11/2017 8:15:00 AM	32629
Surr: Decachlorobiphenyl	109	26.3-128		%Rec	1	7/11/2017 8:15:00 AM	32629
Surr: Tetrachloro-m-xylene	108	20.7-151		%Rec	1	7/11/2017 8:15:00 AM	32629

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-25-27
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 1:35:00 PM
Lab ID: 1706F94-001 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 1:27:38 PM	32703
Surr: N-hexadecane	77.7	37.6-117		%Rec	1	7/12/2017 1:27:38 PM	32703
Surr: Benzo(e)pyrene	77.8	41.6-111		%Rec	1	7/12/2017 1:27:38 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Aniline	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Anthracene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Benzoic acid	ND	0.50		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/8/2017 8:44:39 AM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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Hall Environmental Analysis Laboratory, Inc.

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Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 1:35:00 PM
Lab ID: 1706F94-001 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**	
Carbazole	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/8/2017 8:44:39 AM	32653
4-Chloroaniline	ND	0.50		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Chrysene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Diethyl phthalate	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/8/2017 8:44:39 AM	32653
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Fluorene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Isophorone	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2-Methylphenol	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-25-27
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 1:35:00 PM
Lab ID: 1706F94-001 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
4-Nitroaniline	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Nitrobenzene	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Pentachlorophenol	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Phenol	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Pyrene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Pyridine	ND	0.40		mg/Kg	1	7/8/2017 8:44:39 AM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/8/2017 8:44:39 AM	32653
Surr: 2-Fluorophenol	61.2	21.4-101		%Rec	1	7/8/2017 8:44:39 AM	32653
Surr: Phenol-d5	64.9	32-110		%Rec	1	7/8/2017 8:44:39 AM	32653
Surr: 2,4,6-Tribromophenol	63.4	38.7-115		%Rec	1	7/8/2017 8:44:39 AM	32653
Surr: Nitrobenzene-d5	68.8	26.2-120		%Rec	1	7/8/2017 8:44:39 AM	32653
Surr: 2-Fluorobiphenyl	71.6	36.2-124		%Rec	1	7/8/2017 8:44:39 AM	32653
Surr: 4-Terphenyl-d14	63.6	15-114		%Rec	1	7/8/2017 8:44:39 AM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.031		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Toluene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Ethylbenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2,4-Trimethylbenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,3,5-Trimethylbenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2-Dichloroethane (EDC)	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2-Dibromoethane (EDB)	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Naphthalene	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1-Methylnaphthalene	ND	0.25		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
2-Methylnaphthalene	ND	0.25		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Acetone	ND	0.94		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Bromobenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Bromodichloromethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Bromoform	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Bromomethane	ND	0.19		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
2-Butanone	ND	0.62		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Carbon disulfide	ND	0.62		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Carbon tetrachloride	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-25-27
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 1:35:00 PM
Lab ID: 1706F94-001 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Chloroethane	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Chloroform	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Chloromethane	ND	0.19		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
2-Chlorotoluene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
4-Chlorotoluene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
cis-1,2-DCE	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
cis-1,3-Dichloropropene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2-Dibromo-3-chloropropane	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Dibromochloromethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Dibromomethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2-Dichlorobenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,3-Dichlorobenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,4-Dichlorobenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Dichlorodifluoromethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,1-Dichloroethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,1-Dichloroethene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2-Dichloropropane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,3-Dichloropropane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
2,2-Dichloropropane	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,1-Dichloropropene	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Hexachlorobutadiene	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
2-Hexanone	ND	0.62		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Isopropylbenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
4-Isopropyltoluene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
4-Methyl-2-pentanone	ND	0.62		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Methylene chloride	ND	0.19		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
n-Butylbenzene	ND	0.19		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
n-Propylbenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
sec-Butylbenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Styrene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
tert-Butylbenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,1,1,2-Tetrachloroethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,1,2,2-Tetrachloroethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Tetrachloroethene (PCE)	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
trans-1,2-DCE	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
trans-1,3-Dichloropropene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2,3-Trichlorobenzene	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2,4-Trichlorobenzene	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc.
Client Sample ID: OLF-SB-17-25-27
Project: Frank Ortiz Landfill Waste Characterizati
Collection Date: 6/28/2017 1:35:00 PM
Lab ID: 1706F94-001
Matrix: SOIL
Received Date: 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,1,2-Trichloroethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Trichloroethene (TCE)	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Trichlorofluoromethane	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
1,2,3-Trichloropropane	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Vinyl chloride	ND	0.062		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Xylenes, Total	ND	0.12		mg/Kg	1	6/30/2017 1:48:51 PM	S43959
Surr: Dibromofluoromethane	108	70-130		%Rec	1	6/30/2017 1:48:51 PM	S43959
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	6/30/2017 1:48:51 PM	S43959
Surr: Toluene-d8	101	70-130		%Rec	1	6/30/2017 1:48:51 PM	S43959
Surr: 4-Bromofluorobenzene	91.9	70-130		%Rec	1	6/30/2017 1:48:51 PM	S43959

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-27-29
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 2:00:00 PM
Lab ID: 1706F94-002 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/12/2017 12:59:31 PM	32761
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/12/2017 12:59:31 PM	32761
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	70	50		mg/Kg	1	6/30/2017 5:23:00 PM	32589
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/7/2017 12:13:47 PM	32673
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	3100	150		mg/Kg	50	7/13/2017 11:26:34 AM	32636
Arsenic	ND	2.5		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Barium	28	0.10		mg/Kg	1	7/17/2017 11:08:59 AM	32636
Boron	ND	2.0		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Cadmium	ND	0.10		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Chromium	2.5	0.30		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Cobalt	1.1	0.30		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Copper	3.0	0.30		mg/Kg	1	7/17/2017 11:08:59 AM	32636
Iron	4000	120		mg/Kg	50	7/13/2017 11:26:34 AM	32636
Lead	1.2	0.25		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Manganese	130	0.10		mg/Kg	1	7/17/2017 11:08:59 AM	32636
Molybdenum	ND	0.40		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Nickel	2.9	0.50		mg/Kg	1	7/17/2017 11:08:59 AM	32636
Selenium	ND	2.5		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Silver	ND	0.25		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Uranium	ND	5.0		mg/Kg	1	7/13/2017 10:15:43 AM	32636
Zinc	6.6	2.5		mg/Kg	1	7/17/2017 11:08:59 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/11/2017 8:48:00 AM	32629
Aroclor 1221	ND	0.020		mg/Kg	1	7/11/2017 8:48:00 AM	32629
Aroclor 1232	ND	0.020		mg/Kg	1	7/11/2017 8:48:00 AM	32629
Aroclor 1242	ND	0.020		mg/Kg	1	7/11/2017 8:48:00 AM	32629
Aroclor 1248	ND	0.020		mg/Kg	1	7/11/2017 8:48:00 AM	32629
Aroclor 1254	ND	0.020		mg/Kg	1	7/11/2017 8:48:00 AM	32629
Aroclor 1260	ND	0.020		mg/Kg	1	7/11/2017 8:48:00 AM	32629
Surr: Decachlorobiphenyl	105	26.3-128		%Rec	1	7/11/2017 8:48:00 AM	32629
Surr: Tetrachloro-m-xylene	119	20.7-151		%Rec	1	7/11/2017 8:48:00 AM	32629

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-27-29
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 2:00:00 PM
Lab ID: 1706F94-002 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
1-Methylnaphthalene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
2-Methylnaphthalene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Acenaphthylene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Acenaphthene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Fluorene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Phenanthrene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Anthracene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Pyrene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Benz(a)anthracene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Chrysene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Benzo(b)fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Benzo(k)fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Benzo(a)pyrene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Dibenz(a,h)anthracene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Benzo(g,h,i)perylene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.019		mg/Kg	1	7/12/2017 2:40:19 PM	32703
Surr: N-hexadecane	80.5	37.6-117		%Rec	1	7/12/2017 2:40:19 PM	32703
Surr: Benzo(e)pyrene	87.2	41.6-111		%Rec	1	7/12/2017 2:40:19 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Aniline	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Anthracene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Benzoic acid	ND	0.49		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/8/2017 9:12:26 AM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-27-29
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 2:00:00 PM
Lab ID: 1706F94-002 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**	
Carbazole	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/8/2017 9:12:26 AM	32653
4-Chloroaniline	ND	0.49		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Chrysene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Diethyl phthalate	0.26	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/8/2017 9:12:26 AM	32653
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2,4-Dinitrophenol	ND	0.49		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Fluorene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Isophorone	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2-Methylphenol	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-27-29
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 2:00:00 PM
Lab ID: 1706F94-002 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
4-Nitroaniline	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Nitrobenzene	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Pentachlorophenol	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Phenol	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Pyrene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Pyridine	ND	0.40		mg/Kg	1	7/8/2017 9:12:26 AM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/8/2017 9:12:26 AM	32653
Surr: 2-Fluorophenol	79.1	21.4-101		%Rec	1	7/8/2017 9:12:26 AM	32653
Surr: Phenol-d5	86.4	32-110		%Rec	1	7/8/2017 9:12:26 AM	32653
Surr: 2,4,6-Tribromophenol	96.2	38.7-115		%Rec	1	7/8/2017 9:12:26 AM	32653
Surr: Nitrobenzene-d5	96.2	26.2-120		%Rec	1	7/8/2017 9:12:26 AM	32653
Surr: 2-Fluorobiphenyl	94.5	36.2-124		%Rec	1	7/8/2017 9:12:26 AM	32653
Surr: 4-Terphenyl-d14	90.9	15-114		%Rec	1	7/8/2017 9:12:26 AM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.032		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Toluene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Ethylbenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2,4-Trimethylbenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,3,5-Trimethylbenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2-Dichloroethane (EDC)	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2-Dibromoethane (EDB)	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Naphthalene	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1-Methylnaphthalene	ND	0.25		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
2-Methylnaphthalene	ND	0.25		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Acetone	ND	0.95		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Bromobenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Bromodichloromethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Bromoform	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Bromomethane	ND	0.19		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
2-Butanone	ND	0.63		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Carbon disulfide	ND	0.63		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Carbon tetrachloride	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-27-29
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 2:00:00 PM
Lab ID: 1706F94-002 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Chloroethane	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Chloroform	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Chloromethane	ND	0.19		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
2-Chlorotoluene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
4-Chlorotoluene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
cis-1,2-DCE	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
cis-1,3-Dichloropropene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2-Dibromo-3-chloropropane	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Dibromochloromethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Dibromomethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2-Dichlorobenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,3-Dichlorobenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,4-Dichlorobenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Dichlorodifluoromethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,1-Dichloroethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,1-Dichloroethene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2-Dichloropropane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,3-Dichloropropane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
2,2-Dichloropropane	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,1-Dichloropropene	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Hexachlorobutadiene	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
2-Hexanone	ND	0.63		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Isopropylbenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
4-Isopropyltoluene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
4-Methyl-2-pentanone	ND	0.63		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Methylene chloride	ND	0.19		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
n-Butylbenzene	ND	0.19		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
n-Propylbenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
sec-Butylbenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Styrene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
tert-Butylbenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,1,1,2-Tetrachloroethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,1,2,2-Tetrachloroethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Tetrachloroethene (PCE)	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
trans-1,2-DCE	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
trans-1,3-Dichloropropene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2,3-Trichlorobenzene	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2,4-Trichlorobenzene	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-17-27-29
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 6/28/2017 2:00:00 PM
Lab ID: 1706F94-002 **Matrix:** SOIL **Received Date:** 6/29/2017 9:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,1,2-Trichloroethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Trichloroethene (TCE)	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Trichlorofluoromethane	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
1,2,3-Trichloropropane	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Vinyl chloride	ND	0.063		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Xylenes, Total	ND	0.13		mg/Kg	1	6/30/2017 3:16:24 PM	S43959
Surr: Dibromofluoromethane	107	70-130		%Rec	1	6/30/2017 3:16:24 PM	S43959
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	6/30/2017 3:16:24 PM	S43959
Surr: Toluene-d8	98.3	70-130		%Rec	1	6/30/2017 3:16:24 PM	S43959
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	6/30/2017 3:16:24 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**MB-32629**	SampType:	**MBLK**	TestCode:	**EPA Method 8082: PCB's**
Client ID:	**PBS**	Batch ID:	**32629**	RunNo:	**44110**
Prep Date:	**7/5/2017**	Analysis Date:	**7/11/2017**	SeqNo:	**1392041** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.068		0.06250		108	26.3	128			
Surr: Tetrachloro-m-xylene	0.083		0.06250		133	20.7	151			

Sample ID	**LCS-32629**	SampType:	**LCS**	TestCode:	**EPA Method 8082: PCB's**
Client ID:	**LCSS**	Batch ID:	**32629**	RunNo:	**44110**
Prep Date:	**7/5/2017**	Analysis Date:	**7/11/2017**	SeqNo:	**1392042** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.18	0.020	0.1250	0	140	15	195			
Aroclor 1260	0.14	0.020	0.1250	0	110	24	140			
Surr: Decachlorobiphenyl	0.056		0.06250		88.8	26.3	128			
Surr: Tetrachloro-m-xylene	0.066		0.06250		106	20.7	151			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**	
Client ID: **PBS**	Batch ID: **S43959**	RunNo: **43959**	
Prep Date:	Analysis Date: **6/30/2017**	SeqNo: **1385602**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **S43959** RunNo: **43959**
Prep Date: Analysis Date: **6/30/2017** SeqNo: **1385602** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.0	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **S43959** RunNo: **43959**
Prep Date: Analysis Date: **6/30/2017** SeqNo: **1385603** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Chlorobenzene	1.1	0.050	1.000	0	108	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **S43959** RunNo: **43959**
Prep Date: Analysis Date: **6/30/2017** SeqNo: **1385603** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.1	0.050	1.000	0	105	68.8	161			
Trichloroethene (TCE)	0.95	0.050	1.000	0	95.1	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.6	70	130			

Sample ID **1706f94-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **OLF-SB-17-25-27** Batch ID: **S43959** RunNo: **43959**
Prep Date: Analysis Date: **6/30/2017** SeqNo: **1385605** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.031	1.250	0	107	61.9	146			
Toluene	1.2	0.062	1.250	0	93.1	70	130			
Chlorobenzene	1.3	0.062	1.250	0	103	70	130			
1,1-Dichloroethene	1.6	0.062	1.250	0	131	37.1	170			
Trichloroethene (TCE)	1.2	0.062	1.250	0	98.7	49.8	150			
Surr: Dibromofluoromethane	0.66		0.6250		106	70	130			
Surr: 1,2-Dichloroethane-d4	0.69		0.6250		111	70	130			
Surr: Toluene-d8	0.64		0.6250		102	70	130			
Surr: 4-Bromofluorobenzene	0.59		0.6250		94.6	70	130			

Sample ID **1706f94-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **OLF-SB-17-25-27** Batch ID: **S43959** RunNo: **43959**
Prep Date: Analysis Date: **6/30/2017** SeqNo: **1385606** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.031	1.250	0	101	61.9	146	5.72	20	
Toluene	1.1	0.062	1.250	0	88.5	70	130	5.08	20	
Chlorobenzene	1.2	0.062	1.250	0	97.7	70	130	5.34	20	
1,1-Dichloroethene	1.4	0.062	1.250	0	116	37.1	170	12.7	20	
Trichloroethene (TCE)	1.1	0.062	1.250	0	90.0	49.8	150	9.17	20	
Surr: Dibromofluoromethane	0.66		0.6250		106	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.69		0.6250		110	70	130	0	0	
Surr: Toluene-d8	0.62		0.6250		99.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.59		0.6250		93.7	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32653**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **32653**	RunNo: **44069**			
Prep Date: **7/6/2017**	Analysis Date: **7/8/2017**	SeqNo: **1390660**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32653**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **32653**	RunNo: **44069**			
Prep Date: **7/6/2017**	Analysis Date: **7/8/2017**	SeqNo: **1390660**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	1.7		3.330		50.9	21.4	101			
Surr: Phenol-d5	1.9		3.330		55.9	32	110			
Surr: 2,4,6-Tribromophenol	1.7		3.330		51.1	38.7	115			
Surr: Nitrobenzene-d5	1.0		1.670		61.0	26.2	120			
Surr: 2-Fluorobiphenyl	1.0		1.670		61.8	36.2	124			
Surr: 4-Terphenyl-d14	0.84		1.670		50.2	15	114			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**lcs-32653**	SampType:	**LCS**	TestCode:	**EPA Method 8270C: Semivolatiles**
Client ID:	**LCSS**	Batch ID:	**32653**	RunNo:	**44069**
Prep Date:	**7/6/2017**	Analysis Date:	**7/8/2017**	SeqNo:	**1390661** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.1	0.20	1.670	0	67.2	39.4	110			
4-Chloro-3-methylphenol	2.2	0.50	3.330	0	66.9	41.6	108			
2-Chlorophenol	2.0	0.20	3.330	0	58.7	35	107			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	62.2	31	105			
2,4-Dinitrotoluene	0.93	0.50	1.670	0	55.5	35.6	101			
N-Nitrosodi-n-propylamine	0.88	0.20	1.670	0	52.4	26	100			
4-Nitrophenol	2.0	0.25	3.330	0	61.1	34.1	106			
Pentachlorophenol	1.8	0.40	3.330	0	55.1	35.3	95.4			
Phenol	2.1	0.20	3.330	0	62.6	39.3	96.5			
Pyrene	1.3	0.20	1.670	0	80.5	47.8	95.7			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	73.0	36.6	117			
Surr: 2-Fluorophenol	1.9		3.330		55.6	21.4	101			
Surr: Phenol-d5	2.2		3.330		65.8	32	110			
Surr: 2,4,6-Tribromophenol	2.2		3.330		66.8	38.7	115			
Surr: Nitrobenzene-d5	1.2		1.670		74.0	26.2	120			
Surr: 2-Fluorobiphenyl	1.3		1.670		76.1	36.2	124			
Surr: 4-Terphenyl-d14	1.0		1.670		59.7	15	114			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1706f94-001ams** SampType: **MS** TestCode: **EPA Method 8270C: PAHs**
Client ID: **OLF-SB-17-25-27** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394522** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.21	0.020	0.3282	0	64.5	40.7	116			
1-Methylnaphthalene	0.21	0.020	0.3282	0	64.7	30.1	114			
2-Methylnaphthalene	0.22	0.020	0.3282	0	67.2	43.5	114			
Acenaphthylene	0.23	0.020	0.3282	0	71.5	34.3	126			
Acenaphthene	0.23	0.020	0.3282	0	69.6	28.7	137			
Fluorene	0.24	0.020	0.3282	0	71.9	32.5	134			
Phenanthrene	0.25	0.020	0.3282	0	76.3	51.4	117			
Anthracene	0.25	0.020	0.3282	0.002315	74.6	47.3	116			
Fluoranthene	0.26	0.020	0.3282	0	79.4	57.3	116			
Pyrene	0.26	0.020	0.3282	0	79.2	48.9	124			
Benz(a)anthracene	0.27	0.020	0.3282	0	80.9	52.2	125			
Chrysene	0.24	0.020	0.3282	0	74.4	36.6	134			
Benzo(b)fluoranthene	0.25	0.020	0.3282	0	77.7	32.7	146			
Benzo(k)fluoranthene	0.26	0.020	0.3282	0	78.1	39.6	135			
Benzo(a)pyrene	0.24	0.020	0.3282	0	72.5	41.8	125			
Dibenz(a,h)anthracene	0.25	0.020	0.3282	0	77.1	43.4	130			
Benzo(g,h,i)perylene	0.25	0.020	0.3282	0	76.2	39.2	130			
Indeno(1,2,3-cd)pyrene	0.26	0.020	0.3282	0	78.2	42.6	133			
Surr: N-hexadecane	1.1		1.452		76.4	37.6	117			
Surr: Benzo(e)pyrene	0.25		0.3282		75.4	41.6	111			

Sample ID **1706f94-001amsd** SampType: **MSD** TestCode: **EPA Method 8270C: PAHs**
Client ID: **OLF-SB-17-25-27** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394523** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.27	0.020	0.3281	0	81.4	40.7	116	23.1	62.2	
1-Methylnaphthalene	0.26	0.020	0.3281	0	80.7	30.1	114	21.9	30.4	
2-Methylnaphthalene	0.26	0.020	0.3281	0	79.0	43.5	114	16.1	36.6	
Acenaphthylene	0.27	0.020	0.3281	0	82.4	34.3	126	14.1	35	
Acenaphthene	0.26	0.020	0.3281	0	79.4	28.7	137	13.1	33.1	
Fluorene	0.27	0.020	0.3281	0	82.4	32.5	134	13.6	38.7	
Phenanthrene	0.29	0.020	0.3281	0	89.2	51.4	117	15.6	24.7	
Anthracene	0.29	0.020	0.3281	0.002315	88.5	47.3	116	16.8	38.6	
Fluoranthene	0.33	0.020	0.3281	0	102	57.3	116	24.6	26.3	
Pyrene	0.31	0.020	0.3281	0	95.4	48.9	124	18.5	41.4	
Benz(a)anthracene	0.31	0.020	0.3281	0	94.9	52.2	125	15.9	34.7	
Chrysene	0.30	0.020	0.3281	0	92.1	36.6	134	21.2	32	
Benzo(b)fluoranthene	0.30	0.020	0.3281	0	92.6	32.7	146	17.5	41.1	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1706f94-001amsd** SampType: **MSD** TestCode: **EPA Method 8270C: PAHs**
Client ID: **OLF-SB-17-25-27** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394523** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	0.30	0.020	0.3281	0	92.2	39.6	135	16.6	32.7	
Benzo(a)pyrene	0.30	0.020	0.3281	0	90.3	41.8	125	21.8	40	
Dibenz(a,h)anthracene	0.30	0.020	0.3281	0	90.2	43.4	130	15.7	38	
Benzo(g,h,i)perylene	0.30	0.020	0.3281	0	91.3	39.2	130	18.1	35	
Indeno(1,2,3-cd)pyrene	0.30	0.020	0.3281	0	90.6	42.6	133	14.7	31.2	
Surr: N-hexadecane	1.2		1.452		79.3	37.6	117	0	0	
Surr: Benzo(e)pyrene	0.27		0.3281		82.9	41.6	111	0	0	

Sample ID **lcs-32703** SampType: **LCS** TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394536** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.27	0.020	0.3300	0	82.7	59.1	114			
1-Methylnaphthalene	0.26	0.020	0.3300	0	79.7	57.9	111			
2-Methylnaphthalene	0.27	0.020	0.3300	0	81.5	54.7	115			
Acenaphthylene	0.28	0.020	0.3300	0	85.7	49.1	124			
Acenaphthene	0.28	0.020	0.3300	0	84.7	45.3	118			
Fluorene	0.28	0.020	0.3300	0	85.9	46.4	120			
Phenanthrene	0.28	0.020	0.3300	0	84.4	62.4	116			
Anthracene	0.27	0.020	0.3300	0	81.4	51.8	123			
Fluoranthene	0.29	0.020	0.3300	0	87.5	50.1	122			
Pyrene	0.31	0.020	0.3300	0	94.2	48.6	129			
Benz(a)anthracene	0.30	0.020	0.3300	0	89.8	49.9	129			
Chrysene	0.29	0.020	0.3300	0	86.6	57	126			
Benzo(b)fluoranthene	0.31	0.020	0.3300	0	93.8	51	130			
Benzo(k)fluoranthene	0.31	0.020	0.3300	0	93.2	37	130			
Benzo(a)pyrene	0.31	0.020	0.3300	0	93.6	29	121			
Dibenz(a,h)anthracene	0.31	0.020	0.3300	0	94.0	53.7	124			
Benzo(g,h,i)perylene	0.30	0.020	0.3300	0	92.1	53.3	126			
Indeno(1,2,3-cd)pyrene	0.29	0.020	0.3300	0	88.5	50.5	137			
Surr: N-hexadecane	1.2		1.460		81.9	37.6	117			
Surr: Benzo(e)pyrene	0.31		0.3300		92.7	41.6	111			

Sample ID **mb-32703** SampType: **MBLK** TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**mb-32703**	SampType:	**MBLK**	TestCode:	**EPA Method 8270C: PAHs**
Client ID:	**PBS**	Batch ID:	**32703**	RunNo:	**44186**
Prep Date:	**7/10/2017**	Analysis Date:	**7/12/2017**	SeqNo:	**1394537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	0.020								
2-Methylnaphthalene	ND	0.020								
Acenaphthylene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Phenanthrene	ND	0.020								
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								
Benzo(k)fluoranthene	ND	0.020								
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Benzo(g,h,i)perylene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: N-hexadecane	1.3		1.460		89.9	37.6	117			
Surr: Benzo(e)pyrene	0.32		0.3300		97.4	41.6	111			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32673** SampType: **MBLK** TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS** Batch ID: **32673** RunNo: **44057**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1389728** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-32673** SampType: **LCS** TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS** Batch ID: **32673** RunNo: **44057**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1389729** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	98.2	80	120			

Sample ID **1706F94-002CMS** SampType: **MS** TestCode: **EPA Method 7471: Mercury**
Client ID: **OLF-SB-17-27-29** Batch ID: **32673** RunNo: **44057**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1389741** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.031	0.1580	0.007061	109	75	125			

Sample ID **1706F94-002CMSD** SampType: **MSD** TestCode: **EPA Method 7471: Mercury**
Client ID: **OLF-SB-17-27-29** Batch ID: **32673** RunNo: **44057**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1389742** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.032	0.1638	0.007061	103	75	125	1.30	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32636** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32636** RunNo: **44191**
Prep Date: **7/5/2017** Analysis Date: **7/13/2017** SeqNo: **1394937** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	3.0								
Arsenic	ND	2.5								
Boron	ND	2.0								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Iron	ND	2.5								
Lead	ND	0.25								
Molybdenum	ND	0.40								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								

Sample ID **LCS-32636** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32636** RunNo: **44191**
Prep Date: **7/5/2017** Analysis Date: **7/13/2017** SeqNo: **1394938** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	29	3.0	25.00	0	118	80	120			
Arsenic	25	2.5	25.00	0	99.7	80	120			
Boron	25	2.0	25.00	0	101	80	120			
Cadmium	25	0.10	25.00	0	99.5	80	120			
Chromium	24	0.30	25.00	0	97.9	80	120			
Cobalt	24	0.30	25.00	0	94.4	80	120			
Iron	27	2.5	25.00	0	107	80	120			
Lead	24	0.25	25.00	0	97.6	80	120			
Molybdenum	26	0.40	25.00	0	104	80	120			
Selenium	23	2.5	25.00	0	92.6	80	120			
Silver	5.2	0.25	5.000	0	103	80	120			
Uranium	22	5.0	25.00	0	87.6	80	120			

Sample ID **MB-32636** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32636** RunNo: **44254**
Prep Date: **7/5/2017** Analysis Date: **7/17/2017** SeqNo: **1397801** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.10								
Copper	ND	0.30								
Manganese	ND	0.10								
Nickel	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32636** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32636** RunNo: **44254**
Prep Date: **7/5/2017** Analysis Date: **7/17/2017** SeqNo: **1397801** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	2.5								

Sample ID **LCS-32636** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32636** RunNo: **44254**
Prep Date: **7/5/2017** Analysis Date: **7/17/2017** SeqNo: **1397802** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	25	0.10	25.00	0	98.7	80	120			
Copper	25	0.30	25.00	0	101	80	120			
Manganese	24	0.10	25.00	0	97.3	80	120			
Nickel	24	0.50	25.00	0	95.6	80	120			
Zinc	23	2.5	25.00	0	93.9	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB**	SampType: **MBLK**	TestCode: **Ammonia as N**			
Client ID: **PBS**	Batch ID: **R44239**	RunNo: **44239**			
Prep Date:	Analysis Date: **7/14/2017**	SeqNo: **1396781**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	25								

Sample ID **LCS**	SampType: **LCS**	TestCode: **Ammonia as N**			
Client ID: **LCSS**	Batch ID: **R44239**	RunNo: **44239**			
Prep Date:	Analysis Date: **7/14/2017**	SeqNo: **1396782**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	500	25	500.0	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F94**
20-Jul-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32589** SampType: **MBLK** TestCode: **Method 4500-N-org C: TKN**
Client ID: **PBS** Batch ID: **32589** RunNo: **43961**
Prep Date: **6/30/2017** Analysis Date: **6/30/2017** SeqNo: **1385692** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	ND	50								

Sample ID **LCS-32589** SampType: **LCS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **LCSS** Batch ID: **32589** RunNo: **43961**
Prep Date: **6/30/2017** Analysis Date: **6/30/2017** SeqNo: **1385693** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	1000	0	104	80	120			

Sample ID **1706F94-001BMS** SampType: **MS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-17-25-27** Batch ID: **32589** RunNo: **43961**
Prep Date: **6/30/2017** Analysis Date: **6/30/2017** SeqNo: **1385696** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	1000	0	105	75	125			

Sample ID **1706F94-001BMSD** SampType: **MSD** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-17-25-27** Batch ID: **32589** RunNo: **43961**
Prep Date: **6/30/2017** Analysis Date: **6/30/2017** SeqNo: **1385697** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1100	50	1000	0	108	75	125	2.63	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: INT Work Order Number: 1706F94 RcptNo: 1

Received By: **Erin Melendrez** 6/29/2017 9:11:00 AM

Completed By: **Anne Thorne** 6/30/2017 8:59:31 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Not Present			

Chain-of-Custody Record

Client: INTERA Inc.

Joe Tracy

Mailing Address: 6000 Uptown Blvd NE

ST 220 ABQ 87110

Phone #: 505 246 1600

email or Fax#: jtracy@intera.com

QA/QC Package:

☑ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☑ EDD (Type) excel

Turn-Around Time:

☑ Standard ☐ Rush _____

Project Name: Frank Ortiz Landfill Waste Characterization

Project #: COSFE.C001.ORTIZ

Project Manager: Joe Tracy

Sampler: AKA

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706F94	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	~~RCRA 8 Metals~~ See list	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	~~8270 (Semi-VOA)~~	PCBs 8082 SIM	Hg 7470/7471/245.2	Nitrate/Nitrite 300	TKN + Ammonia 4500	Air Bubbles (Y or N)
6/28/17	1335	Soil	OLF-SB-17-25-27	3x4oz jar + MeOH	Na / MeOH	201						X	X			X	X	X	X	X	X	
6/28/17	1400	Soil	OLF-SB-17-27-29	3x4oz jar + MeOH	Na / MeOH	202						X	X			X	X	X	X	X	X	

Date	Time	Relinquished by	Received by	Date	Time
6/28/17	1815	[signature]	[signature]	6-29-17	0844
6/29/17	911	[signature]	[signature]	6/29/17	911

Remarks: VOCs, SVOCs, PAHs, PCBs, Metals, Hg, Nitrate/Nitrite TKN Ammonia.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Table 2a (continued)
Soil Analytes, Regulatory Standards, and PRRLs
Waste and Vadose Zone Characterization, Former Frank Ortiz Landfill
Santa Fe, Santa Fe County, New Mexico

Chemical	Residential Soil SSL (mg/kg)[1]	Industrial/ Occupational Soil SSL (mg/kg)	Construction Worker Soil SSL (mg/kg)	DAF 1 (mg/kg)	DAF 20 (mg/kg)	MDL (mg/kg)	PRRL (mg/kg)	Source of PRRL	NM-GS (mg/L)
2,4,6-Trichlorophenol	6.16E+01	9.16E+02	2.69E+02	3.37E-02	6.74E-01	0.16	0.16	DAF 20	NA
Metals (EPA Method 6010)									
Aluminum	7.80E+04	1.29E+06	4.14E+04	2.99E+04	5.97E+05	0.21	0.21	DAF 20	5
Arsenic	4.25E+00	2.15E+01	5.74E+01	1.50E-02	2.99E-01	0.89	0.89	DAF 20	0.1
Barium	1.56E+04	2.55E+05	4.39E+03	1.35E+02	2.70E+03	0.071	0.071	DAF 20	1
Boron	1.56E+04	2.59E+05	5.14E+04	1.25E+01	2.51E+02	0.19	0.19	DAF 20	0.75
Cobalt	NA	NA	NA	NA	NA	0.11	0.11	MDL	0.05
Cadmium	7.05E+01	1.11E+03	7.21E+01	4.69E-01	9.39E+00	0.063	0.063	DAF 20	0.01
Chromium (Total)	9.66E+01	5.05E+02	1.34E+02	1.01E+04	2.01E+05	0.094	0.094	DAF 20	0.05
Copper	3.13E+03	5.19E+04	1.42E+04	2.78E+01	5.56E+02	0.12	0.12	DAF 20	1
Iron	5.48E+04	9.08E+05	2.48E+05	3.48E+02	6.96E+03	0.75	0.75	DAF 20	1
Lead	4.00E+02	8.00E+02	8.00E+02	NA	NA	0.17	0.17	MDL	0.05
Mercury (methyl)	7.82E+02	1.30E+02	3.54E+01	4.45E-04	8.89E-03	0.10	0.10	DAF 20	0.002
Manganese	1.05E+04	1.60E+05	4.64E+02	1.31E+02	2.63E+03	0.054	0.054	DAF 20	0.2
Molybdenum	3.91E+02	6.49E+03	1.77E+03	1.99E+00	3.98E+01	0.12	0.12	DAF 20	1
Nickel	1.56E+03	2.57E+04	7.53E+02	2.42E+01	4.85E+02	0.15	0.15	DAF 20	0.2
Selenium	3.91E+02	6.49E+03	1.75E+03	5.11E-01	1.02E+01	1.8	1.8	DAF 20	0.05
Silver	3.91E+02	6.49E+03	1.77E+03	6.88E-01	1.38E+01	0.063	0.063	DAF 20	0.05
Uranium	2.34E+02	3.88E+03	2.77E+02	2.67E+01	5.33E+02	1.1	1.1	DAF 20	0.03
Zinc	2.35E+04	3.89E+05	1.06E+05	3.71E+02	7.41E+03	0.35	0.35	DAF 20	10

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 27, 2017

Joseph Tracy
Intera, Inc.
6000 Uptown Boulevard, NE Suite 220
Albuquerque, NM 87110
TEL: (505) 246-1600
FAX (505) 246-2600

RE: Ortiz Landfill Waste Characterization OrderNo.: 1706G18

Dear Joseph Tracy:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/30/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:10:00 AM
Lab ID: 1706G18-001 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/13/2017 3:28:40 PM	32783
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/13/2017 3:28:40 PM	32783
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	91	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	190	50		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/18/2017 11:11:38 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	4200	150		mg/Kg	50	7/21/2017 7:53:02 AM	32636
Arsenic	ND	2.5		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Barium	43	0.10		mg/Kg	1	7/17/2017 11:32:02 AM	32636
Boron	2.8	2.0		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Cadmium	ND	0.10		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Chromium	3.6	0.30		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Cobalt	1.9	0.30		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Copper	4.5	0.30		mg/Kg	1	7/17/2017 11:32:02 AM	32636
Iron	6500	120		mg/Kg	50	7/21/2017 7:53:02 AM	32636
Lead	1.6	0.25		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Manganese	400	0.50		mg/Kg	5	7/17/2017 11:33:47 AM	32636
Molybdenum	ND	0.40		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Nickel	3.3	0.50		mg/Kg	1	7/17/2017 11:32:02 AM	32636
Selenium	ND	2.5		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Silver	ND	0.25		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Uranium	ND	5.0		mg/Kg	1	7/13/2017 10:39:51 AM	32636
Zinc	7.4	2.5		mg/Kg	1	7/17/2017 11:32:02 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/11/2017 2:18:00 PM	32629
Aroclor 1221	ND	0.020		mg/Kg	1	7/11/2017 2:18:00 PM	32629
Aroclor 1232	ND	0.020		mg/Kg	1	7/11/2017 2:18:00 PM	32629
Aroclor 1242	ND	0.020		mg/Kg	1	7/11/2017 2:18:00 PM	32629
Aroclor 1248	ND	0.020		mg/Kg	1	7/11/2017 2:18:00 PM	32629
Aroclor 1254	ND	0.020		mg/Kg	1	7/11/2017 2:18:00 PM	32629
Aroclor 1260	ND	0.020		mg/Kg	1	7/11/2017 2:18:00 PM	32629
Surr: Decachlorobiphenyl	108	26.3-128		%Rec	1	7/11/2017 2:18:00 PM	32629
Surr: Tetrachloro-m-xylene	133	20.7-151		%Rec	1	7/11/2017 2:18:00 PM	32629

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:10:00 AM
Lab ID: 1706G18-001 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 3:04:31 PM	32703
Surr: N-hexadecane	81.5	37.6-117		%Rec	1	7/12/2017 3:04:31 PM	32703
Surr: Benzo(e)pyrene	84.5	41.6-111		%Rec	1	7/12/2017 3:04:31 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Aniline	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Anthracene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Benzoic acid	ND	0.50		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/11/2017 11:17:12 AM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:10:00 AM
Lab ID: 1706G18-001 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/11/2017 11:17:12 AM	32653
4-Chloroaniline	ND	0.50		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Chrysene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Diethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/11/2017 11:17:12 AM	32653
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Fluorene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Isophorone	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2-Methylphenol	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:10:00 AM
Lab ID: 1706G18-001 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
4-Nitroaniline	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Nitrobenzene	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Pentachlorophenol	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Phenol	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Pyrene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Pyridine	ND	0.40		mg/Kg	1	7/11/2017 11:17:12 AM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 11:17:12 AM	32653
Surr: 2-Fluorophenol	31.6	21.4-101		%Rec	1	7/11/2017 11:17:12 AM	32653
Surr: Phenol-d5	35.9	32-110		%Rec	1	7/11/2017 11:17:12 AM	32653
Surr: 2,4,6-Tribromophenol	37.7	38.7-115	S	%Rec	1	7/11/2017 11:17:12 AM	32653
Surr: Nitrobenzene-d5	37.8	26.2-120		%Rec	1	7/11/2017 11:17:12 AM	32653
Surr: 2-Fluorobiphenyl	39.1	36.2-124		%Rec	1	7/11/2017 11:17:12 AM	32653
Surr: 4-Terphenyl-d14	34.1	15-114		%Rec	1	7/11/2017 11:17:12 AM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.029		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Toluene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Ethylbenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2,4-Trimethylbenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,3,5-Trimethylbenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2-Dichloroethane (EDC)	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2-Dibromoethane (EDB)	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Naphthalene	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1-Methylnaphthalene	ND	0.23		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
2-Methylnaphthalene	ND	0.23		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Acetone	ND	0.87		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Bromobenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Bromodichloromethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Bromoform	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Bromomethane	ND	0.17		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
2-Butanone	ND	0.58		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Carbon disulfide	ND	0.58		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Carbon tetrachloride	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:10:00 AM
Lab ID: 1706G18-001 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Chloroethane	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Chloroform	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Chloromethane	ND	0.17		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
2-Chlorotoluene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
4-Chlorotoluene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
cis-1,2-DCE	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
cis-1,3-Dichloropropene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2-Dibromo-3-chloropropane	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Dibromochloromethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Dibromomethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2-Dichlorobenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,3-Dichlorobenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,4-Dichlorobenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Dichlorodifluoromethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,1-Dichloroethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,1-Dichloroethene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2-Dichloropropane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,3-Dichloropropane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
2,2-Dichloropropane	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,1-Dichloropropene	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Hexachlorobutadiene	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
2-Hexanone	ND	0.58		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Isopropylbenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
4-Isopropyltoluene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
4-Methyl-2-pentanone	ND	0.58		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Methylene chloride	ND	0.17		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
n-Butylbenzene	ND	0.17		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
n-Propylbenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
sec-Butylbenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Styrene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
tert-Butylbenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,1,1,2-Tetrachloroethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,1,2,2-Tetrachloroethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Tetrachloroethene (PCE)	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
trans-1,2-DCE	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
trans-1,3-Dichloropropene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2,3-Trichlorobenzene	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2,4-Trichlorobenzene	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:10:00 AM
Lab ID: 1706G18-001 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,1,2-Trichloroethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Trichloroethene (TCE)	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Trichlorofluoromethane	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
1,2,3-Trichloropropane	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Vinyl chloride	ND	0.058		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Xylenes, Total	ND	0.12		mg/Kg	1	6/30/2017 8:36:52 PM	S43959
Surr: Dibromofluoromethane	106	70-130		%Rec	1	6/30/2017 8:36:52 PM	S43959
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	6/30/2017 8:36:52 PM	S43959
Surr: Toluene-d8	101	70-130		%Rec	1	6/30/2017 8:36:52 PM	S43959
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	1	6/30/2017 8:36:52 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-119-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:18:00 AM
Lab ID: 1706G18-002 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/13/2017 3:53:29 PM	32783
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/13/2017 3:53:29 PM	32783
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	77	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	200	50		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.031		mg/Kg	1	7/18/2017 11:13:20 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	2200	59		mg/Kg	20	7/21/2017 8:49:50 AM	32636
Arsenic	ND	2.5		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Barium	20	0.099		mg/Kg	1	7/17/2017 11:41:16 AM	32636
Boron	ND	2.0		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Cadmium	ND	0.099		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Chromium	1.3	0.30		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Cobalt	0.97	0.30		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Copper	2.0	0.30		mg/Kg	1	7/17/2017 11:41:16 AM	32636
Iron	3500	49		mg/Kg	20	7/21/2017 8:49:50 AM	32636
Lead	0.47	0.25		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Manganese	140	0.099		mg/Kg	1	7/17/2017 11:41:16 AM	32636
Molybdenum	ND	0.40		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Nickel	1.5	0.49		mg/Kg	1	7/17/2017 11:41:16 AM	32636
Selenium	ND	2.5		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Silver	ND	0.25		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Uranium	ND	4.9		mg/Kg	1	7/13/2017 10:41:30 AM	32636
Zinc	4.0	2.5		mg/Kg	1	7/17/2017 11:41:16 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/11/2017 2:51:00 PM	32629
Aroclor 1221	ND	0.020		mg/Kg	1	7/11/2017 2:51:00 PM	32629
Aroclor 1232	ND	0.020		mg/Kg	1	7/11/2017 2:51:00 PM	32629
Aroclor 1242	ND	0.020		mg/Kg	1	7/11/2017 2:51:00 PM	32629
Aroclor 1248	ND	0.020		mg/Kg	1	7/11/2017 2:51:00 PM	32629
Aroclor 1254	ND	0.020		mg/Kg	1	7/11/2017 2:51:00 PM	32629
Aroclor 1260	ND	0.020		mg/Kg	1	7/11/2017 2:51:00 PM	32629
Surr: Decachlorobiphenyl	118	26.3-128		%Rec	1	7/11/2017 2:51:00 PM	32629
Surr: Tetrachloro-m-xylene	134	20.7-151		%Rec	1	7/11/2017 2:51:00 PM	32629

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-119-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:18:00 AM
Lab ID: 1706G18-002 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 3:28:47 PM	32703
Surr: N-hexadecane	85.7	37.6-117		%Rec	1	7/12/2017 3:28:47 PM	32703
Surr: Benzo(e)pyrene	88.5	41.6-111		%Rec	1	7/12/2017 3:28:47 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Aniline	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Anthracene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Benzoic acid	ND	0.50		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/11/2017 11:45:13 AM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-119-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:18:00 AM
Lab ID: 1706G18-002 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/11/2017 11:45:13 AM	32653
4-Chloroaniline	ND	0.50		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Chrysene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Diethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/11/2017 11:45:13 AM	32653
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Fluorene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Isophorone	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2-Methylphenol	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653

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PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-119-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:18:00 AM
Lab ID: 1706G18-002 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
4-Nitroaniline	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Nitrobenzene	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Pentachlorophenol	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Phenol	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Pyrene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Pyridine	ND	0.40		mg/Kg	1	7/11/2017 11:45:13 AM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 11:45:13 AM	32653
Surr: 2-Fluorophenol	61.6	21.4-101		%Rec	1	7/11/2017 11:45:13 AM	32653
Surr: Phenol-d5	67.4	32-110		%Rec	1	7/11/2017 11:45:13 AM	32653
Surr: 2,4,6-Tribromophenol	72.4	38.7-115		%Rec	1	7/11/2017 11:45:13 AM	32653
Surr: Nitrobenzene-d5	75.5	26.2-120		%Rec	1	7/11/2017 11:45:13 AM	32653
Surr: 2-Fluorobiphenyl	75.7	36.2-124		%Rec	1	7/11/2017 11:45:13 AM	32653
Surr: 4-Terphenyl-d14	64.8	15-114		%Rec	1	7/11/2017 11:45:13 AM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.032		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Toluene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Ethylbenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2,4-Trimethylbenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,3,5-Trimethylbenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2-Dichloroethane (EDC)	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2-Dibromoethane (EDB)	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Naphthalene	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1-Methylnaphthalene	ND	0.26		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
2-Methylnaphthalene	ND	0.26		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Acetone	ND	0.96		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Bromobenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Bromodichloromethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Bromoform	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Bromomethane	ND	0.19		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
2-Butanone	ND	0.64		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Carbon disulfide	ND	0.64		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Carbon tetrachloride	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-119-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:18:00 AM
Lab ID: 1706G18-002 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Chloroethane	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Chloroform	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Chloromethane	ND	0.19		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
2-Chlorotoluene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
4-Chlorotoluene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
cis-1,2-DCE	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
cis-1,3-Dichloropropene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2-Dibromo-3-chloropropane	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Dibromochloromethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Dibromomethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2-Dichlorobenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,3-Dichlorobenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,4-Dichlorobenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Dichlorodifluoromethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,1-Dichloroethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,1-Dichloroethene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2-Dichloropropane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,3-Dichloropropane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
2,2-Dichloropropane	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,1-Dichloropropene	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Hexachlorobutadiene	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
2-Hexanone	ND	0.64		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Isopropylbenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
4-Isopropyltoluene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
4-Methyl-2-pentanone	ND	0.64		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Methylene chloride	ND	0.19		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
n-Butylbenzene	ND	0.19		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
n-Propylbenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
sec-Butylbenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Styrene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
tert-Butylbenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,1,1,2-Tetrachloroethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,1,2,2-Tetrachloroethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Tetrachloroethene (PCE)	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
trans-1,2-DCE	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
trans-1,3-Dichloropropene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2,3-Trichlorobenzene	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2,4-Trichlorobenzene	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-119-18.5-21
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 9:18:00 AM
Lab ID: 1706G18-002 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,1,2-Trichloroethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Trichloroethene (TCE)	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Trichlorofluoromethane	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
1,2,3-Trichloropropane	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Vinyl chloride	ND	0.064		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Xylenes, Total	ND	0.13		mg/Kg	1	6/30/2017 9:05:42 PM	S43959
Surr: Dibromofluoromethane	108	70-130		%Rec	1	6/30/2017 9:05:42 PM	S43959
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	6/30/2017 9:05:42 PM	S43959
Surr: Toluene-d8	103	70-130		%Rec	1	6/30/2017 9:05:42 PM	S43959
Surr: 4-Bromofluorobenzene	92.2	70-130		%Rec	1	6/30/2017 9:05:42 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-5-7
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 12:57:00 PM
Lab ID: 1706G18-003 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/13/2017 4:43:07 PM	32783
Nitrogen, Nitrate (As N)	5.3	0.30		mg/Kg	1	7/13/2017 4:43:07 PM	32783
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	ND	50		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.033		mg/Kg	1	7/18/2017 11:15:03 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	2800	150		mg/Kg	50	7/21/2017 7:56:05 AM	32636
Arsenic	ND	2.5		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Barium	26	0.098		mg/Kg	1	7/17/2017 11:42:54 AM	32636
Boron	ND	2.0		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Cadmium	ND	0.098		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Chromium	2.2	0.29		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Cobalt	1.3	0.29		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Copper	2.4	0.29		mg/Kg	1	7/17/2017 11:42:54 AM	32636
Iron	4000	120		mg/Kg	50	7/21/2017 7:56:05 AM	32636
Lead	1.5	0.25		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Manganese	150	0.098		mg/Kg	1	7/17/2017 11:42:54 AM	32636
Molybdenum	ND	0.39		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Nickel	2.1	0.49		mg/Kg	1	7/17/2017 11:42:54 AM	32636
Selenium	ND	2.5		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Silver	ND	0.25		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Uranium	ND	4.9		mg/Kg	1	7/13/2017 10:43:01 AM	32636
Zinc	7.3	2.5		mg/Kg	1	7/17/2017 11:42:54 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/11/2017 3:24:00 PM	32629
Aroclor 1221	ND	0.020		mg/Kg	1	7/11/2017 3:24:00 PM	32629
Aroclor 1232	ND	0.020		mg/Kg	1	7/11/2017 3:24:00 PM	32629
Aroclor 1242	ND	0.020		mg/Kg	1	7/11/2017 3:24:00 PM	32629
Aroclor 1248	ND	0.020		mg/Kg	1	7/11/2017 3:24:00 PM	32629
Aroclor 1254	ND	0.020		mg/Kg	1	7/11/2017 3:24:00 PM	32629
Aroclor 1260	ND	0.020		mg/Kg	1	7/11/2017 3:24:00 PM	32629
Surr: Decachlorobiphenyl	143	26.3-128	S	%Rec	1	7/11/2017 3:24:00 PM	32629
Surr: Tetrachloro-m-xylene	149	20.7-151		%Rec	1	7/11/2017 3:24:00 PM	32629

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-5-7
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 12:57:00 PM
Lab ID: 1706G18-003 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
1-Methylnaphthalene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
2-Methylnaphthalene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Acenaphthylene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Acenaphthene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Fluorene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Phenanthrene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Anthracene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Pyrene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Benz(a)anthracene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Chrysene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Benzo(b)fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Benzo(k)fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Benzo(a)pyrene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Dibenz(a,h)anthracene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Benzo(g,h,i)perylene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.019		mg/Kg	1	7/12/2017 3:53:05 PM	32703
Surr: N-hexadecane	99.1	37.6-117		%Rec	1	7/12/2017 3:53:05 PM	32703
Surr: Benzo(e)pyrene	92.5	41.6-111		%Rec	1	7/12/2017 3:53:05 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Aniline	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Anthracene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Benzoic acid	ND	0.50		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/11/2017 12:13:15 PM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-5-7
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 12:57:00 PM
Lab ID: 1706G18-003 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/11/2017 12:13:15 PM	32653
4-Chloroaniline	ND	0.50		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Chrysene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Diethyl phthalate	0.22	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/11/2017 12:13:15 PM	32653
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Fluorene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Isophorone	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2-Methylphenol	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-5-7
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 12:57:00 PM
Lab ID: 1706G18-003 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
4-Nitroaniline	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Nitrobenzene	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Pentachlorophenol	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Phenol	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Pyrene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Pyridine	ND	0.40		mg/Kg	1	7/11/2017 12:13:15 PM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 12:13:15 PM	32653
Surr: 2-Fluorophenol	64.7	21.4-101		%Rec	1	7/11/2017 12:13:15 PM	32653
Surr: Phenol-d5	71.8	32-110		%Rec	1	7/11/2017 12:13:15 PM	32653
Surr: 2,4,6-Tribromophenol	70.6	38.7-115		%Rec	1	7/11/2017 12:13:15 PM	32653
Surr: Nitrobenzene-d5	84.9	26.2-120		%Rec	1	7/11/2017 12:13:15 PM	32653
Surr: 2-Fluorobiphenyl	83.6	36.2-124		%Rec	1	7/11/2017 12:13:15 PM	32653
Surr: 4-Terphenyl-d14	66.8	15-114		%Rec	1	7/11/2017 12:13:15 PM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.035		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Toluene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Ethylbenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2,4-Trimethylbenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,3,5-Trimethylbenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2-Dichloroethane (EDC)	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2-Dibromoethane (EDB)	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Naphthalene	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1-Methylnaphthalene	ND	0.28		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
2-Methylnaphthalene	ND	0.28		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Acetone	ND	1.1		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Bromobenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Bromodichloromethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Bromoform	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Bromomethane	ND	0.21		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
2-Butanone	ND	0.71		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Carbon disulfide	ND	0.71		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Carbon tetrachloride	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-5-7
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 12:57:00 PM
Lab ID: 1706G18-003 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Chloroethane	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Chloroform	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Chloromethane	ND	0.21		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
2-Chlorotoluene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
4-Chlorotoluene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
cis-1,2-DCE	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
cis-1,3-Dichloropropene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2-Dibromo-3-chloropropane	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Dibromochloromethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Dibromomethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2-Dichlorobenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,3-Dichlorobenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,4-Dichlorobenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Dichlorodifluoromethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,1-Dichloroethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,1-Dichloroethene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2-Dichloropropane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,3-Dichloropropane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
2,2-Dichloropropane	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,1-Dichloropropene	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Hexachlorobutadiene	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
2-Hexanone	ND	0.71		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Isopropylbenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
4-Isopropyltoluene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
4-Methyl-2-pentanone	ND	0.71		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Methylene chloride	ND	0.21		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
n-Butylbenzene	ND	0.21		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
n-Propylbenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
sec-Butylbenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Styrene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
tert-Butylbenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,1,1,2-Tetrachloroethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,1,2,2-Tetrachloroethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Tetrachloroethene (PCE)	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
trans-1,2-DCE	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
trans-1,3-Dichloropropene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2,3-Trichlorobenzene	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2,4-Trichlorobenzene	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-5-7
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 12:57:00 PM
Lab ID: 1706G18-003 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,1,2-Trichloroethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Trichloroethene (TCE)	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Trichlorofluoromethane	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
1,2,3-Trichloropropane	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Vinyl chloride	ND	0.071		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Xylenes, Total	ND	0.14		mg/Kg	1	6/30/2017 11:00:31 PM	S43959
Surr: Dibromofluoromethane	105	70-130		%Rec	1	6/30/2017 11:00:31 PM	S43959
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	6/30/2017 11:00:31 PM	S43959
Surr: Toluene-d8	102	70-130		%Rec	1	6/30/2017 11:00:31 PM	S43959
Surr: 4-Bromofluorobenzene	90.8	70-130		%Rec	1	6/30/2017 11:00:31 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 1:29:00 PM
Lab ID: 1706G18-004 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/13/2017 5:07:57 PM	32783
Nitrogen, Nitrate (As N)	5.5	0.30		mg/Kg	1	7/13/2017 5:07:57 PM	32783
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	ND	49		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/18/2017 11:16:47 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	3600	150		mg/Kg	50	7/21/2017 7:57:39 AM	32636
Arsenic	ND	12		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Barium	42	0.49		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Boron	ND	9.9		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Cadmium	ND	0.49		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Chromium	2.9	1.5		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Cobalt	1.8	1.5		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Copper	2.6	1.5		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Iron	4700	120		mg/Kg	50	7/21/2017 7:57:39 AM	32636
Lead	2.4	1.2		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Manganese	240	0.49		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Molybdenum	ND	2.0		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Nickel	2.6	2.5		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Selenium	ND	12		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Silver	ND	1.2		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Uranium	ND	25		mg/Kg	5	7/17/2017 10:10:39 AM	32636
Zinc	ND	12		mg/Kg	5	7/17/2017 10:10:39 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/11/2017 3:57:00 PM	32629
Aroclor 1221	ND	0.020		mg/Kg	1	7/11/2017 3:57:00 PM	32629
Aroclor 1232	ND	0.020		mg/Kg	1	7/11/2017 3:57:00 PM	32629
Aroclor 1242	ND	0.020		mg/Kg	1	7/11/2017 3:57:00 PM	32629
Aroclor 1248	ND	0.020		mg/Kg	1	7/11/2017 3:57:00 PM	32629
Aroclor 1254	ND	0.020		mg/Kg	1	7/11/2017 3:57:00 PM	32629
Aroclor 1260	ND	0.020		mg/Kg	1	7/11/2017 3:57:00 PM	32629
Surr: Decachlorobiphenyl	106	26.3-128		%Rec	1	7/11/2017 3:57:00 PM	32629
Surr: Tetrachloro-m-xylene	122	20.7-151		%Rec	1	7/11/2017 3:57:00 PM	32629

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 1:29:00 PM
Lab ID: 1706G18-004 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 4:17:23 PM	32703
Surr: N-hexadecane	75.1	37.6-117		%Rec	1	7/12/2017 4:17:23 PM	32703
Surr: Benzo(e)pyrene	86.4	41.6-111		%Rec	1	7/12/2017 4:17:23 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Aniline	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Anthracene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Benzoic acid	ND	0.50		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/11/2017 12:41:17 PM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 1:29:00 PM
Lab ID: 1706G18-004 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/11/2017 12:41:17 PM	32653
4-Chloroaniline	ND	0.50		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Chrysene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Diethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/11/2017 12:41:17 PM	32653
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Fluorene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Isophorone	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2-Methylphenol	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 1:29:00 PM
Lab ID: 1706G18-004 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
4-Nitroaniline	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Nitrobenzene	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Pentachlorophenol	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Phenol	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Pyrene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Pyridine	ND	0.40		mg/Kg	1	7/11/2017 12:41:17 PM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 12:41:17 PM	32653
Surr: 2-Fluorophenol	58.1	21.4-101		%Rec	1	7/11/2017 12:41:17 PM	32653
Surr: Phenol-d5	63.5	32-110		%Rec	1	7/11/2017 12:41:17 PM	32653
Surr: 2,4,6-Tribromophenol	71.2	38.7-115		%Rec	1	7/11/2017 12:41:17 PM	32653
Surr: Nitrobenzene-d5	77.2	26.2-120		%Rec	1	7/11/2017 12:41:17 PM	32653
Surr: 2-Fluorobiphenyl	74.4	36.2-124		%Rec	1	7/11/2017 12:41:17 PM	32653
Surr: 4-Terphenyl-d14	67.6	15-114		%Rec	1	7/11/2017 12:41:17 PM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.026		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Toluene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Ethylbenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2,4-Trimethylbenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,3,5-Trimethylbenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2-Dichloroethane (EDC)	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2-Dibromoethane (EDB)	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Naphthalene	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1-Methylnaphthalene	ND	0.21		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
2-Methylnaphthalene	ND	0.21		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Acetone	ND	0.79		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Bromobenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Bromodichloromethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Bromoform	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Bromomethane	ND	0.16		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
2-Butanone	ND	0.53		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Carbon disulfide	ND	0.53		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Carbon tetrachloride	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 1:29:00 PM
Lab ID: 1706G18-004 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Chloroethane	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Chloroform	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Chloromethane	ND	0.16		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
2-Chlorotoluene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
4-Chlorotoluene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
cis-1,2-DCE	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
cis-1,3-Dichloropropene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2-Dibromo-3-chloropropane	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Dibromochloromethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Dibromomethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2-Dichlorobenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,3-Dichlorobenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,4-Dichlorobenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Dichlorodifluoromethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,1-Dichloroethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,1-Dichloroethene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2-Dichloropropane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,3-Dichloropropane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
2,2-Dichloropropane	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,1-Dichloropropene	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Hexachlorobutadiene	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
2-Hexanone	ND	0.53		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Isopropylbenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
4-Isopropyltoluene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
4-Methyl-2-pentanone	ND	0.53		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Methylene chloride	ND	0.16		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
n-Butylbenzene	ND	0.16		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
n-Propylbenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
sec-Butylbenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Styrene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
tert-Butylbenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,1,1,2-Tetrachloroethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,1,2,2-Tetrachloroethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Tetrachloroethene (PCE)	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
trans-1,2-DCE	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
trans-1,3-Dichloropropene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2,3-Trichlorobenzene	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2,4-Trichlorobenzene	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-21-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 1:29:00 PM
Lab ID: 1706G18-004 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,1,2-Trichloroethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Trichloroethene (TCE)	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Trichlorofluoromethane	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
1,2,3-Trichloropropane	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Vinyl chloride	ND	0.053		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Xylenes, Total	ND	0.11		mg/Kg	1	6/30/2017 11:29:06 PM	S43959
Surr: Dibromofluoromethane	107	70-130		%Rec	1	6/30/2017 11:29:06 PM	S43959
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	6/30/2017 11:29:06 PM	S43959
Surr: Toluene-d8	103	70-130		%Rec	1	6/30/2017 11:29:06 PM	S43959
Surr: 4-Bromofluorobenzene	92.5	70-130		%Rec	1	6/30/2017 11:29:06 PM	S43959

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Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-9-11
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:15:00 PM
Lab ID: 1706G18-005 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	0.94	0.30		mg/Kg	1	7/13/2017 5:32:46 PM	32783
Nitrogen, Nitrate (As N)	0.42	0.30		mg/Kg	1	7/13/2017 5:32:46 PM	32783
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	70	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	55	50		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/18/2017 11:18:30 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	3500	150		mg/Kg	50	7/21/2017 7:59:13 AM	32636
Arsenic	3.1	2.4		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Barium	45	0.49		mg/Kg	5	7/17/2017 11:44:29 AM	32636
Boron	ND	1.9		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Cadmium	ND	0.097		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Chromium	3.2	0.29		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Cobalt	1.5	0.29		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Copper	320	1.5		mg/Kg	5	7/17/2017 11:44:29 AM	32636
Iron	5200	120		mg/Kg	50	7/21/2017 7:59:13 AM	32636
Lead	2.2	0.24		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Manganese	240	0.49		mg/Kg	5	7/17/2017 11:44:29 AM	32636
Molybdenum	ND	0.39		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Nickel	2.9	2.4		mg/Kg	5	7/17/2017 11:44:29 AM	32636
Selenium	ND	2.4		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Silver	ND	0.24		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Uranium	ND	4.9		mg/Kg	1	7/13/2017 10:46:01 AM	32636
Zinc	7.9	2.4		mg/Kg	1	7/21/2017 8:58:00 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.019		mg/Kg	1	7/11/2017 4:30:00 PM	32629
Aroclor 1221	ND	0.019		mg/Kg	1	7/11/2017 4:30:00 PM	32629
Aroclor 1232	ND	0.019		mg/Kg	1	7/11/2017 4:30:00 PM	32629
Aroclor 1242	ND	0.019		mg/Kg	1	7/11/2017 4:30:00 PM	32629
Aroclor 1248	ND	0.019		mg/Kg	1	7/11/2017 4:30:00 PM	32629
Aroclor 1254	ND	0.019		mg/Kg	1	7/11/2017 4:30:00 PM	32629
Aroclor 1260	ND	0.019		mg/Kg	1	7/11/2017 4:30:00 PM	32629
Surr: Decachlorobiphenyl	122	26.3-128		%Rec	1	7/11/2017 4:30:00 PM	32629
Surr: Tetrachloro-m-xylene	133	20.7-151		%Rec	1	7/11/2017 4:30:00 PM	32629

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-9-11
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:15:00 PM
Lab ID: 1706G18-005 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 4:41:40 PM	32703
Surr: N-hexadecane	87.4	37.6-117		%Rec	1	7/12/2017 4:41:40 PM	32703
Surr: Benzo(e)pyrene	92.8	41.6-111		%Rec	1	7/12/2017 4:41:40 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Aniline	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Anthracene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Benzoic acid	ND	0.49		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/11/2017 1:09:24 PM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-9-11
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:15:00 PM
Lab ID: 1706G18-005 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/11/2017 1:09:24 PM	32653
4-Chloroaniline	ND	0.49		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Chrysene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Di-n-butyl phthalate	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Di-n-octyl phthalate	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Diethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/11/2017 1:09:24 PM	32653
4,6-Dinitro-2-methylphenol	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2,4-Dinitrophenol	ND	0.49		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Fluorene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Isophorone	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2-Methylphenol	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-9-11
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:15:00 PM
Lab ID: 1706G18-005 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
4-Nitroaniline	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Nitrobenzene	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Pentachlorophenol	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Phenol	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Pyrene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Pyridine	ND	0.39		mg/Kg	1	7/11/2017 1:09:24 PM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 1:09:24 PM	32653
Surr: 2-Fluorophenol	59.5	21.4-101		%Rec	1	7/11/2017 1:09:24 PM	32653
Surr: Phenol-d5	67.0	32-110		%Rec	1	7/11/2017 1:09:24 PM	32653
Surr: 2,4,6-Tribromophenol	72.1	38.7-115		%Rec	1	7/11/2017 1:09:24 PM	32653
Surr: Nitrobenzene-d5	78.0	26.2-120		%Rec	1	7/11/2017 1:09:24 PM	32653
Surr: 2-Fluorobiphenyl	79.5	36.2-124		%Rec	1	7/11/2017 1:09:24 PM	32653
Surr: 4-Terphenyl-d14	70.0	15-114		%Rec	1	7/11/2017 1:09:24 PM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.035		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Toluene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Ethylbenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2,4-Trimethylbenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,3,5-Trimethylbenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2-Dichloroethane (EDC)	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2-Dibromoethane (EDB)	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Naphthalene	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1-Methylnaphthalene	ND	0.28		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
2-Methylnaphthalene	ND	0.28		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Acetone	ND	1.1		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Bromobenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Bromodichloromethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Bromoform	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Bromomethane	ND	0.21		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
2-Butanone	ND	0.70		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Carbon disulfide	ND	0.70		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Carbon tetrachloride	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-9-11
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:15:00 PM
Lab ID: 1706G18-005 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Chloroethane	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Chloroform	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Chloromethane	ND	0.21		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
2-Chlorotoluene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
4-Chlorotoluene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
cis-1,2-DCE	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
cis-1,3-Dichloropropene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2-Dibromo-3-chloropropane	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Dibromochloromethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Dibromomethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2-Dichlorobenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,3-Dichlorobenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,4-Dichlorobenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Dichlorodifluoromethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,1-Dichloroethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,1-Dichloroethene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2-Dichloropropane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,3-Dichloropropane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
2,2-Dichloropropane	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,1-Dichloropropene	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Hexachlorobutadiene	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
2-Hexanone	ND	0.70		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Isopropylbenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
4-Isopropyltoluene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
4-Methyl-2-pentanone	ND	0.70		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Methylene chloride	ND	0.21		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
n-Butylbenzene	ND	0.21		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
n-Propylbenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
sec-Butylbenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Styrene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
tert-Butylbenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,1,1,2-Tetrachloroethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,1,2,2-Tetrachloroethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Tetrachloroethene (PCE)	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
trans-1,2-DCE	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
trans-1,3-Dichloropropene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2,3-Trichlorobenzene	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2,4-Trichlorobenzene	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-9-11
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:15:00 PM
Lab ID: 1706G18-005 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,1,2-Trichloroethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Trichloroethene (TCE)	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Trichlorofluoromethane	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
1,2,3-Trichloropropane	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Vinyl chloride	ND	0.070		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Xylenes, Total	ND	0.14		mg/Kg	1	6/30/2017 11:57:38 PM	S43959
Surr: Dibromofluoromethane	101	70-130		%Rec	1	6/30/2017 11:57:38 PM	S43959
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	6/30/2017 11:57:38 PM	S43959
Surr: Toluene-d8	100	70-130		%Rec	1	6/30/2017 11:57:38 PM	S43959
Surr: 4-Bromofluorobenzene	89.2	70-130		%Rec	1	6/30/2017 11:57:38 PM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:56:00 PM
Lab ID: 1706G18-006 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	1.4	0.30		mg/Kg	1	7/13/2017 5:57:36 PM	32783
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/13/2017 5:57:36 PM	32783
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	70	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	82	49		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/18/2017 11:20:14 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	3200	150		mg/Kg	50	7/21/2017 8:00:34 AM	32636
Arsenic	5.2	2.4		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Barium	33	0.097		mg/Kg	1	7/17/2017 11:46:04 AM	32636
Boron	ND	1.9		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Cadmium	ND	0.097		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Chromium	2.2	0.29		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Cobalt	1.5	0.29		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Copper	3.9	0.29		mg/Kg	1	7/17/2017 11:46:04 AM	32636
Iron	5700	120		mg/Kg	50	7/21/2017 8:00:34 AM	32636
Lead	2.4	0.24		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Manganese	170	0.097		mg/Kg	1	7/17/2017 11:46:04 AM	32636
Molybdenum	ND	0.39		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Nickel	2.1	0.49		mg/Kg	1	7/17/2017 11:46:04 AM	32636
Selenium	ND	2.4		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Silver	ND	0.24		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Uranium	ND	4.9		mg/Kg	1	7/13/2017 10:47:31 AM	32636
Zinc	7.9	2.4		mg/Kg	1	7/17/2017 11:46:04 AM	32636
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/11/2017 5:03:00 PM	32629
Aroclor 1221	ND	0.020		mg/Kg	1	7/11/2017 5:03:00 PM	32629
Aroclor 1232	ND	0.020		mg/Kg	1	7/11/2017 5:03:00 PM	32629
Aroclor 1242	ND	0.020		mg/Kg	1	7/11/2017 5:03:00 PM	32629
Aroclor 1248	ND	0.020		mg/Kg	1	7/11/2017 5:03:00 PM	32629
Aroclor 1254	ND	0.020		mg/Kg	1	7/11/2017 5:03:00 PM	32629
Aroclor 1260	ND	0.020		mg/Kg	1	7/11/2017 5:03:00 PM	32629
Surr: Decachlorobiphenyl	128	26.3-128		%Rec	1	7/11/2017 5:03:00 PM	32629
Surr: Tetrachloro-m-xylene	141	20.7-151		%Rec	1	7/11/2017 5:03:00 PM	32629

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:56:00 PM
Lab ID: 1706G18-006 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 5:05:53 PM	32703
Surr: N-hexadecane	85.2	37.6-117		%Rec	1	7/12/2017 5:05:53 PM	32703
Surr: Benzo(e)pyrene	85.5	41.6-111		%Rec	1	7/12/2017 5:05:53 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Acenaphthylene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Aniline	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Anthracene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Azobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Benzoic acid	ND	0.49		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Benzyl alcohol	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/11/2017 1:37:35 PM	32653
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:56:00 PM
Lab ID: 1706G18-006 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/11/2017 1:37:35 PM	32653
4-Chloroaniline	ND	0.49		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2-Chlorophenol	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Chrysene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Di-n-butyl phthalate	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Di-n-octyl phthalate	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Dibenzofuran	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Diethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/11/2017 1:37:35 PM	32653
4,6-Dinitro-2-methylphenol	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2,4-Dinitrophenol	ND	0.49		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Fluoranthene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Fluorene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Hexachloroethane	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Isophorone	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2-Methylphenol	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Naphthalene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:56:00 PM
Lab ID: 1706G18-006 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
4-Nitroaniline	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Nitrobenzene	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2-Nitrophenol	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
4-Nitrophenol	ND	0.25		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Pentachlorophenol	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Phenanthrene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Phenol	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Pyrene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Pyridine	ND	0.39		mg/Kg	1	7/11/2017 1:37:35 PM	32653
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/11/2017 1:37:35 PM	32653
Surr: 2-Fluorophenol	46.3	21.4-101		%Rec	1	7/11/2017 1:37:35 PM	32653
Surr: Phenol-d5	49.8	32-110		%Rec	1	7/11/2017 1:37:35 PM	32653
Surr: 2,4,6-Tribromophenol	56.5	38.7-115		%Rec	1	7/11/2017 1:37:35 PM	32653
Surr: Nitrobenzene-d5	53.2	26.2-120		%Rec	1	7/11/2017 1:37:35 PM	32653
Surr: 2-Fluorobiphenyl	56.9	36.2-124		%Rec	1	7/11/2017 1:37:35 PM	32653
Surr: 4-Terphenyl-d14	52.3	15-114		%Rec	1	7/11/2017 1:37:35 PM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.034		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Toluene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Ethylbenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2,4-Trimethylbenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,3,5-Trimethylbenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2-Dichloroethane (EDC)	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2-Dibromoethane (EDB)	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Naphthalene	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1-Methylnaphthalene	ND	0.28		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
2-Methylnaphthalene	ND	0.28		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Acetone	ND	1.0		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Bromobenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Bromodichloromethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Bromoform	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Bromomethane	ND	0.21		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
2-Butanone	ND	0.69		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Carbon disulfide	ND	0.69		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Carbon tetrachloride	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-22-11-13
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 2:56:00 PM
Lab ID: 1706G18-006 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Chloroethane	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Chloroform	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Chloromethane	ND	0.21		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
2-Chlorotoluene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
4-Chlorotoluene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
cis-1,2-DCE	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
cis-1,3-Dichloropropene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2-Dibromo-3-chloropropane	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Dibromochloromethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Dibromomethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2-Dichlorobenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,3-Dichlorobenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,4-Dichlorobenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Dichlorodifluoromethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,1-Dichloroethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,1-Dichloroethene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2-Dichloropropane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,3-Dichloropropane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
2,2-Dichloropropane	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,1-Dichloropropene	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Hexachlorobutadiene	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
2-Hexanone	ND	0.69		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Isopropylbenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
4-Isopropyltoluene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
4-Methyl-2-pentanone	ND	0.69		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Methylene chloride	ND	0.21		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
n-Butylbenzene	ND	0.21		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
n-Propylbenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
sec-Butylbenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Styrene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
tert-Butylbenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,1,1,2-Tetrachloroethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,1,2,2-Tetrachloroethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Tetrachloroethene (PCE)	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
trans-1,2-DCE	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
trans-1,3-Dichloropropene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2,3-Trichlorobenzene	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2,4-Trichlorobenzene	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc.
Client Sample ID: OLF-SB-22-11-13
Project: Ortiz Landfill Waste Characterization
Collection Date: 6/29/2017 2:56:00 PM
Lab ID: 1706G18-006
Matrix: SOIL
Received Date: 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,1,2-Trichloroethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Trichloroethene (TCE)	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Trichlorofluoromethane	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
1,2,3-Trichloropropane	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Vinyl chloride	ND	0.069		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Xylenes, Total	ND	0.14		mg/Kg	1	7/1/2017 12:26:11 AM	S43959
Surr: Dibromofluoromethane	109	70-130		%Rec	1	7/1/2017 12:26:11 AM	S43959
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	7/1/2017 12:26:11 AM	S43959
Surr: Toluene-d8	100	70-130		%Rec	1	7/1/2017 12:26:11 AM	S43959
Surr: 4-Bromofluorobenzene	93.7	70-130		%Rec	1	7/1/2017 12:26:11 AM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** Methanol Blank
Project: Ortiz Landfill Waste Characterization **Collection Date:**
Lab ID: 1706G18-007 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Toluene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Ethylbenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Naphthalene	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Acetone	ND	0.75		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Bromobenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Bromodichloromethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Bromoform	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Bromomethane	ND	0.15		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
2-Butanone	ND	0.50		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Carbon disulfide	ND	0.50		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Carbon tetrachloride	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Chlorobenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Chloroethane	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Chloroform	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Chloromethane	ND	0.15		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Dibromochloromethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Dibromomethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,1-Dichloroethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** Methanol Blank
Project: Ortiz Landfill Waste Characterization **Collection Date:**
Lab ID: 1706G18-007 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
2-Hexanone	ND	0.50		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Isopropylbenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Methylene chloride	ND	0.15		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
n-Butylbenzene	ND	0.15		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
n-Propylbenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Styrene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Vinyl chloride	ND	0.050		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Xylenes, Total	ND	0.10		mg/Kg	1	7/1/2017 12:54:55 AM	S43959
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/1/2017 12:54:55 AM	S43959
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	7/1/2017 12:54:55 AM	S43959
Surr: Toluene-d8	101	70-130		%Rec	1	7/1/2017 12:54:55 AM	S43959
Surr: 4-Bromofluorobenzene	89.4	70-130		%Rec	1	7/1/2017 12:54:55 AM	S43959

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-27-28
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 10:15:00 AM
Lab ID: 1706G18-008 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/13/2017 6:22:24 PM	32783
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/13/2017 6:22:24 PM	32783
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	ND	50		mg/Kg	1	7/13/2017 5:21:00 PM	32765
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.033		mg/Kg	1	7/18/2017 11:25:33 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	2100	58		mg/Kg	20	7/21/2017 8:56:33 AM	32789
Arsenic	ND	2.4		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Barium	60	0.097		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Boron	ND	1.9		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Cadmium	ND	0.097		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Chromium	1.9	0.29		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Cobalt	1.0	0.29		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Copper	1.6	0.29		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Iron	3800	48		mg/Kg	20	7/21/2017 8:56:33 AM	32789
Lead	1.7	0.24		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Manganese	140	0.097		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Molybdenum	ND	0.39		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Nickel	1.5	0.48		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Selenium	ND	2.4		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Silver	ND	0.24		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Uranium	ND	4.8		mg/Kg	1	7/17/2017 10:18:15 AM	32789
Zinc	4.7	2.4		mg/Kg	1	7/17/2017 10:18:15 AM	32789
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/14/2017 11:57:00 AM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/14/2017 11:57:00 AM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/14/2017 11:57:00 AM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/14/2017 11:57:00 AM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/14/2017 11:57:00 AM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/14/2017 11:57:00 AM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/14/2017 11:57:00 AM	32733
Surr: Decachlorobiphenyl	90.8	26.3-128		%Rec	1	7/14/2017 11:57:00 AM	32733
Surr: Tetrachloro-m-xylene	92.4	20.7-151		%Rec	1	7/14/2017 11:57:00 AM	32733

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-27-28
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 10:15:00 AM
Lab ID: 1706G18-008 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst: **DAM**	
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 5:30:11 PM	32703
Surr: N-hexadecane	76.1	37.6-117		%Rec	1	7/12/2017 5:30:11 PM	32703
Surr: Benzo(e)pyrene	78.9	41.6-111		%Rec	1	7/12/2017 5:30:11 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Acenaphthylene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Aniline	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Anthracene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Azobenzene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Benz(a)anthracene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Benzo(a)pyrene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Benzo(b)fluoranthene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Benzo(g,h,i)perylene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Benzo(k)fluoranthene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Benzoic acid	ND	0.98	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Benzyl alcohol	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Bis(2-chloroethoxy)methane	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Bis(2-chloroethyl)ether	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Bis(2-chloroisopropyl)ether	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Bis(2-ethylhexyl)phthalate	ND	0.98	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
4-Bromophenyl phenyl ether	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Butyl benzyl phthalate	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-27-28
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 10:15:00 AM
Lab ID: 1706G18-008 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
4-Chloro-3-methylphenol	ND	0.98	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
4-Chloroaniline	ND	0.98	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2-Chloronaphthalene	ND	0.49	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2-Chlorophenol	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
4-Chlorophenyl phenyl ether	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Chrysene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Di-n-butyl phthalate	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Di-n-octyl phthalate	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Dibenz(a,h)anthracene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Dibenzofuran	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
1,2-Dichlorobenzene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
1,3-Dichlorobenzene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
1,4-Dichlorobenzene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
3,3´-Dichlorobenzidine	ND	0.49	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Diethyl phthalate	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Dimethyl phthalate	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2,4-Dichlorophenol	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2,4-Dimethylphenol	ND	0.59	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
4,6-Dinitro-2-methylphenol	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2,4-Dinitrophenol	ND	0.98	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2,4-Dinitrotoluene	ND	0.98	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2,6-Dinitrotoluene	ND	0.98	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Fluoranthene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Fluorene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Hexachlorobenzene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Hexachlorobutadiene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Hexachlorocyclopentadiene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Hexachloroethane	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Indeno(1,2,3-cd)pyrene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Isophorone	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
1-Methylnaphthalene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2-Methylnaphthalene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2-Methylphenol	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
3+4-Methylphenol	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
N-Nitrosodi-n-propylamine	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
N-Nitrosodiphenylamine	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Naphthalene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2-Nitroaniline	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-27-28
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 10:15:00 AM
Lab ID: 1706G18-008 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
4-Nitroaniline	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Nitrobenzene	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2-Nitrophenol	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
4-Nitrophenol	ND	0.49	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Pentachlorophenol	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Phenanthrene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Phenol	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Pyrene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Pyridine	ND	0.78	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
1,2,4-Trichlorobenzene	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2,4,5-Trichlorophenol	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
2,4,6-Trichlorophenol	ND	0.39	D	mg/Kg	1	7/11/2017 2:05:45 PM	32653
Surr: 2-Fluorophenol	42.3	21.4-101	D	%Rec	1	7/11/2017 2:05:45 PM	32653
Surr: Phenol-d5	31.9	32-110	SD	%Rec	1	7/11/2017 2:05:45 PM	32653
Surr: 2,4,6-Tribromophenol	63.7	38.7-115	D	%Rec	1	7/11/2017 2:05:45 PM	32653
Surr: Nitrobenzene-d5	36.8	26.2-120	D	%Rec	1	7/11/2017 2:05:45 PM	32653
Surr: 2-Fluorobiphenyl	42.7	36.2-124	D	%Rec	1	7/11/2017 2:05:45 PM	32653
Surr: 4-Terphenyl-d14	98.4	15-114	D	%Rec	1	7/11/2017 2:05:45 PM	32653
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.034		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Toluene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Ethylbenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Methyl tert-butyl ether (MTBE)	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2,4-Trimethylbenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,3,5-Trimethylbenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2-Dichloroethane (EDC)	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2-Dibromoethane (EDB)	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Naphthalene	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1-Methylnaphthalene	ND	0.27		mg/Kg	1	7/6/2017 1:03:48 PM	32630
2-Methylnaphthalene	ND	0.27		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Acetone	ND	1.0		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Bromobenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Bromodichloromethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Bromoform	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Bromomethane	ND	0.20		mg/Kg	1	7/6/2017 1:03:48 PM	32630
2-Butanone	ND	0.67		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Carbon disulfide	ND	0.67		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Carbon tetrachloride	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-27-28
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 10:15:00 AM
Lab ID: 1706G18-008 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Chloroethane	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Chloroform	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Chloromethane	ND	0.20		mg/Kg	1	7/6/2017 1:03:48 PM	32630
2-Chlorotoluene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
4-Chlorotoluene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
cis-1,2-DCE	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
cis-1,3-Dichloropropene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2-Dibromo-3-chloropropane	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Dibromochloromethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Dibromomethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2-Dichlorobenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,3-Dichlorobenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,4-Dichlorobenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Dichlorodifluoromethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,1-Dichloroethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,1-Dichloroethene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2-Dichloropropane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,3-Dichloropropane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
2,2-Dichloropropane	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,1-Dichloropropene	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Hexachlorobutadiene	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
2-Hexanone	ND	0.67		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Isopropylbenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
4-Isopropyltoluene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
4-Methyl-2-pentanone	ND	0.67		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Methylene chloride	ND	0.20		mg/Kg	1	7/6/2017 1:03:48 PM	32630
n-Butylbenzene	ND	0.20		mg/Kg	1	7/6/2017 1:03:48 PM	32630
n-Propylbenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
sec-Butylbenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Styrene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
tert-Butylbenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,1,1,2-Tetrachloroethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,1,2,2-Tetrachloroethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Tetrachloroethene (PCE)	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
trans-1,2-DCE	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
trans-1,3-Dichloropropene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2,3-Trichlorobenzene	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2,4-Trichlorobenzene	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-19-27-28
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/29/2017 10:15:00 AM
Lab ID: 1706G18-008 **Matrix:** SOIL **Received Date:** 6/30/2017 10:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,1,2-Trichloroethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Trichloroethene (TCE)	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Trichlorofluoromethane	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
1,2,3-Trichloropropane	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Vinyl chloride	ND	0.067		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Xylenes, Total	ND	0.13		mg/Kg	1	7/6/2017 1:03:48 PM	32630
Surr: Dibromofluoromethane	111	70-130		%Rec	1	7/6/2017 1:03:48 PM	32630
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	7/6/2017 1:03:48 PM	32630
Surr: Toluene-d8	98.5	70-130		%Rec	1	7/6/2017 1:03:48 PM	32630
Surr: 4-Bromofluorobenzene	90.1	70-130		%Rec	1	7/6/2017 1:03:48 PM	32630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID	**MB-32783**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**
Client ID:	**PBS**	Batch ID:	**32783**	RunNo:	**44189**
Prep Date:	**7/13/2017**	Analysis Date:	**7/13/2017**	SeqNo:	**1396388** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								

Sample ID	**LCS-32783**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**
Client ID:	**LCSS**	Batch ID:	**32783**	RunNo:	**44189**
Prep Date:	**7/13/2017**	Analysis Date:	**7/13/2017**	SeqNo:	**1396389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	98.3	90	110			
Nitrogen, Nitrate (As N)	7.8	0.30	7.500	0	104	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB-32629** SampType: **MBLK** TestCode: **EPA Method 8082: PCB's**
Client ID: **PBS** Batch ID: **32629** RunNo: **44110**
Prep Date: **7/5/2017** Analysis Date: **7/11/2017** SeqNo: **1392041** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.068		0.06250		108	26.3	128			
Surr: Tetrachloro-m-xylene	0.083		0.06250		133	20.7	151			

Sample ID **LCS-32629** SampType: **LCS** TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS** Batch ID: **32629** RunNo: **44110**
Prep Date: **7/5/2017** Analysis Date: **7/11/2017** SeqNo: **1392042** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.18	0.020	0.1250	0	140	15	195			
Aroclor 1260	0.14	0.020	0.1250	0	110	24	140			
Surr: Decachlorobiphenyl	0.056		0.06250		88.8	26.3	128			
Surr: Tetrachloro-m-xylene	0.066		0.06250		106	20.7	151			

Sample ID **MB-32733** SampType: **MBLK** TestCode: **EPA Method 8082: PCB's**
Client ID: **PBS** Batch ID: **32733** RunNo: **44244**
Prep Date: **7/11/2017** Analysis Date: **7/14/2017** SeqNo: **1397259** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.060		0.06250		95.2	26.3	128			
Surr: Tetrachloro-m-xylene	0.062		0.06250		99.2	20.7	151			

Sample ID **LCS-32733** SampType: **LCS** TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS** Batch ID: **32733** RunNo: **44244**
Prep Date: **7/11/2017** Analysis Date: **7/14/2017** SeqNo: **1397262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **LCS-32733** SampType: **LCS** TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS** Batch ID: **32733** RunNo: **44244**
Prep Date: **7/11/2017** Analysis Date: **7/14/2017** SeqNo: **1397262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.21	0.020	0.1250	0	167	15	195			
Aroclor 1260	0.13	0.020	0.1250	0	104	24	140			
Surr: Decachlorobiphenyl	0.062		0.06250		98.8	26.3	128			
Surr: Tetrachloro-m-xylene	0.062		0.06250		99.2	20.7	151			

Sample ID **1706G18-008AMS** SampType: **MS** TestCode: **EPA Method 8082: PCB's**
Client ID: **OLF-SB-19-27-28** Batch ID: **32733** RunNo: **44244**
Prep Date: **7/11/2017** Analysis Date: **7/14/2017** SeqNo: **1397269** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.12	0.020	0.1231	0	97.4	15	153			
Aroclor 1260	0.12	0.020	0.1231	0	100	15	180			
Surr: Decachlorobiphenyl	0.052		0.06155		84.4	26.3	128			
Surr: Tetrachloro-m-xylene	0.054		0.06155		88.0	20.7	151			

Sample ID **1706G18-008AMSD** SampType: **MSD** TestCode: **EPA Method 8082: PCB's**
Client ID: **OLF-SB-19-27-28** Batch ID: **32733** RunNo: **44244**
Prep Date: **7/11/2017** Analysis Date: **7/14/2017** SeqNo: **1397273** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.13	0.020	0.1240	0	102	15	153	5.16	32.9	
Aroclor 1260	0.14	0.020	0.1240	0	113	15	180	12.9	31.1	
Surr: Decachlorobiphenyl	0.059		0.06200		95.6	26.3	128	0	0	
Surr: Tetrachloro-m-xylene	0.059		0.06200		95.6	20.7	151	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**			
Client ID: **PBS**	Batch ID: **S43959**	RunNo: **43959**			
Prep Date:	Analysis Date: **6/30/2017**	SeqNo: **1385602**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **S43959** RunNo: **43959**
Prep Date: Analysis Date: **6/30/2017** SeqNo: **1385602** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.0	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **S43959** RunNo: **43959**
Prep Date: Analysis Date: **6/30/2017** SeqNo: **1385603** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Chlorobenzene	1.1	0.050	1.000	0	108	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **100ng lcs**	SampType: **LCS**		TestCode: **EPA Method 8260B: Volatiles**		
Client ID: **LCSS**	Batch ID: **S43959**		RunNo: **43959**		
Prep Date:	Analysis Date: **6/30/2017**		SeqNo: **1385603**	Units: **mg/Kg**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.1	0.050	1.000	0	105	68.8	161			
Trichloroethene (TCE)	0.95	0.050	1.000	0	95.1	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.6	70	130			

Sample ID **mb-32630**	SampType: **MBLK**		TestCode: **EPA Method 8260B: Volatiles**		
Client ID: **PBS**	Batch ID: **32630**		RunNo: **44040**		
Prep Date: **7/5/2017**	Analysis Date: **7/6/2017**		SeqNo: **1388781**	Units: **mg/Kg**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **mb-32630** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **32630** RunNo: **44040**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1388781** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **mb-32630**	SampType: **MBLK**		TestCode: **EPA Method 8260B: Volatiles**		
Client ID: **PBS**	Batch ID: **32630**		RunNo: **44040**		
Prep Date: **7/5/2017**	Analysis Date: **7/6/2017**		SeqNo: **1388781**	Units: **mg/Kg**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		105	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.1	70	130			

Sample ID **lcs-32630**	SampType: **LCS**		TestCode: **EPA Method 8260B: Volatiles**		
Client ID: **LCSS**	Batch ID: **32630**		RunNo: **44040**		
Prep Date: **7/5/2017**	Analysis Date: **7/6/2017**		SeqNo: **1388782**	Units: **mg/Kg**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	118	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Chlorobenzene	1.1	0.050	1.000	0	109	70	130			
1,1-Dichloroethene	1.6	0.050	1.000	0	157	68.8	161			
Trichloroethene (TCE)	1.1	0.050	1.000	0	106	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **mb-32653**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **32653**	RunNo: **44069**			
Prep Date: **7/6/2017**	Analysis Date: **7/8/2017**	SeqNo: **1390660**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **mb-32653**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **32653**	RunNo: **44069**			
Prep Date: **7/6/2017**	Analysis Date: **7/8/2017**	SeqNo: **1390660**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	1.7		3.330		50.9	21.4	101			
Surr: Phenol-d5	1.9		3.330		55.9	32	110			
Surr: 2,4,6-Tribromophenol	1.7		3.330		51.1	38.7	115			
Surr: Nitrobenzene-d5	1.0		1.670		61.0	26.2	120			
Surr: 2-Fluorobiphenyl	1.0		1.670		61.8	36.2	124			
Surr: 4-Terphenyl-d14	0.84		1.670		50.2	15	114			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID	**lcs-32653**	SampType:	**LCS**	TestCode:	**EPA Method 8270C: Semivolatiles**
Client ID:	**LCSS**	Batch ID:	**32653**	RunNo:	**44069**
Prep Date:	**7/6/2017**	Analysis Date:	**7/8/2017**	SeqNo:	**1390661** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.1	0.20	1.670	0	67.2	39.4	110			
4-Chloro-3-methylphenol	2.2	0.50	3.330	0	66.9	41.6	108			
2-Chlorophenol	2.0	0.20	3.330	0	58.7	35	107			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	62.2	31	105			
2,4-Dinitrotoluene	0.93	0.50	1.670	0	55.5	35.6	101			
N-Nitrosodi-n-propylamine	0.88	0.20	1.670	0	52.4	26	100			
4-Nitrophenol	2.0	0.25	3.330	0	61.1	34.1	106			
Pentachlorophenol	1.8	0.40	3.330	0	55.1	35.3	95.4			
Phenol	2.1	0.20	3.330	0	62.6	39.3	96.5			
Pyrene	1.3	0.20	1.670	0	80.5	47.8	95.7			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	73.0	36.6	117			
Surr: 2-Fluorophenol	1.9		3.330		55.6	21.4	101			
Surr: Phenol-d5	2.2		3.330		65.8	32	110			
Surr: 2,4,6-Tribromophenol	2.2		3.330		66.8	38.7	115			
Surr: Nitrobenzene-d5	1.2		1.670		74.0	26.2	120			
Surr: 2-Fluorobiphenyl	1.3		1.670		76.1	36.2	124			
Surr: 4-Terphenyl-d14	1.0		1.670		59.7	15	114			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **lcs-32703** SampType: **LCS** TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394536** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.27	0.020	0.3300	0	82.7	59.1	114			
1-Methylnaphthalene	0.26	0.020	0.3300	0	79.7	57.9	111			
2-Methylnaphthalene	0.27	0.020	0.3300	0	81.5	54.7	115			
Acenaphthylene	0.28	0.020	0.3300	0	85.7	49.1	124			
Acenaphthene	0.28	0.020	0.3300	0	84.7	45.3	118			
Fluorene	0.28	0.020	0.3300	0	85.9	46.4	120			
Phenanthrene	0.28	0.020	0.3300	0	84.4	62.4	116			
Anthracene	0.27	0.020	0.3300	0	81.4	51.8	123			
Fluoranthene	0.29	0.020	0.3300	0	87.5	50.1	122			
Pyrene	0.31	0.020	0.3300	0	94.2	48.6	129			
Benz(a)anthracene	0.30	0.020	0.3300	0	89.8	49.9	129			
Chrysene	0.29	0.020	0.3300	0	86.6	57	126			
Benzo(b)fluoranthene	0.31	0.020	0.3300	0	93.8	51	130			
Benzo(k)fluoranthene	0.31	0.020	0.3300	0	93.2	37	130			
Benzo(a)pyrene	0.31	0.020	0.3300	0	93.6	29	121			
Dibenz(a,h)anthracene	0.31	0.020	0.3300	0	94.0	53.7	124			
Benzo(g,h,i)perylene	0.30	0.020	0.3300	0	92.1	53.3	126			
Indeno(1,2,3-cd)pyrene	0.29	0.020	0.3300	0	88.5	50.5	137			
Surr: N-hexadecane	1.2		1.460		81.9	37.6	117			
Surr: Benzo(e)pyrene	0.31		0.3300		92.7	41.6	111			

Sample ID **mb-32703** SampType: **MBLK** TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								
1-Methylnaphthalene	ND	0.020								
2-Methylnaphthalene	ND	0.020								
Acenaphthylene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Phenanthrene	ND	0.020								
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID	**mb-32703**	SampType:	**MBLK**	TestCode:	**EPA Method 8270C: PAHs**
Client ID:	**PBS**	Batch ID:	**32703**	RunNo:	**44186**
Prep Date:	**7/10/2017**	Analysis Date:	**7/12/2017**	SeqNo:	**1394537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	ND	0.020								
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Benzo(g,h,i)perylene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: N-hexadecane	1.3		1.460		89.9	37.6	117			
Surr: Benzo(e)pyrene	0.32		0.3300		97.4	41.6	111			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID	**MB-32826**	SampType:	**MBLK**	TestCode:	**EPA Method 7471: Mercury**
Client ID:	**PBS**	Batch ID:	**32826**	RunNo:	**44299**
Prep Date:	**7/17/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1398895** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-32826**	SampType:	**LCS**	TestCode:	**EPA Method 7471: Mercury**
Client ID:	**LCSS**	Batch ID:	**32826**	RunNo:	**44299**
Prep Date:	**7/17/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1398896** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	97.3	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB-32636** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32636** RunNo: **44191**
Prep Date: **7/5/2017** Analysis Date: **7/13/2017** SeqNo: **1394937** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	3.0								
Arsenic	ND	2.5								
Boron	ND	2.0								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Iron	ND	2.5								
Lead	ND	0.25								
Molybdenum	ND	0.40								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								

Sample ID **LCS-32636** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32636** RunNo: **44191**
Prep Date: **7/5/2017** Analysis Date: **7/13/2017** SeqNo: **1394938** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	29	3.0	25.00	0	118	80	120			
Arsenic	25	2.5	25.00	0	99.7	80	120			
Boron	25	2.0	25.00	0	101	80	120			
Cadmium	25	0.10	25.00	0	99.5	80	120			
Chromium	24	0.30	25.00	0	97.9	80	120			
Cobalt	24	0.30	25.00	0	94.4	80	120			
Iron	27	2.5	25.00	0	107	80	120			
Lead	24	0.25	25.00	0	97.6	80	120			
Molybdenum	26	0.40	25.00	0	104	80	120			
Selenium	23	2.5	25.00	0	92.6	80	120			
Silver	5.2	0.25	5.000	0	103	80	120			
Uranium	22	5.0	25.00	0	87.6	80	120			

Sample ID **MB-32789** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397607** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	3.0								
Arsenic	ND	2.5								
Barium	ND	0.10								
Boron	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB-32789** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397607** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Copper	ND	0.30								
Iron	ND	2.5								
Lead	ND	0.25								
Manganese	ND	0.10								
Molybdenum	ND	0.40								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID **LCS-32789** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397608** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	27	3.0	25.00	0	109	80	120			
Arsenic	24	2.5	25.00	0	97.2	80	120			
Barium	24	0.10	25.00	0	96.6	80	120			
Boron	24	2.0	25.00	0	96.6	80	120			
Cadmium	24	0.10	25.00	0	95.9	80	120			
Chromium	24	0.30	25.00	0	95.6	80	120			
Cobalt	23	0.30	25.00	0	91.8	80	120			
Copper	25	0.30	25.00	0	98.7	80	120			
Iron	25	2.5	25.00	0	100	80	120			
Lead	24	0.25	25.00	0	95.4	80	120			
Manganese	24	0.10	25.00	0	95.5	80	120			
Molybdenum	26	0.40	25.00	0	102	80	120			
Nickel	24	0.50	25.00	0	94.1	80	120			
Selenium	23	2.5	25.00	0	93.3	80	120			
Silver	5.0	0.25	5.000	0	100	80	120			
Uranium	24	5.0	25.00	0	97.2	80	120			
Zinc	23	2.5	25.00	0	92.7	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB-32636** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32636** RunNo: **44254**
Prep Date: **7/5/2017** Analysis Date: **7/17/2017** SeqNo: **1397801** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.10								
Copper	ND	0.30								
Manganese	ND	0.10								
Nickel	ND	0.50								
Zinc	ND	2.5								

Sample ID **LCS-32636** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32636** RunNo: **44254**
Prep Date: **7/5/2017** Analysis Date: **7/17/2017** SeqNo: **1397802** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	25	0.10	25.00	0	98.7	80	120			
Copper	25	0.30	25.00	0	101	80	120			
Manganese	24	0.10	25.00	0	97.3	80	120			
Nickel	24	0.50	25.00	0	95.6	80	120			
Zinc	23	2.5	25.00	0	93.9	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB** SampType: **MBLK** TestCode: **Ammonia as N**
Client ID: **PBS** Batch ID: **R44239** RunNo: **44239**
Prep Date: Analysis Date: **7/14/2017** SeqNo: **1396781** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	25								

Sample ID **LCS** SampType: **LCS** TestCode: **Ammonia as N**
Client ID: **LCSS** Batch ID: **R44239** RunNo: **44239**
Prep Date: Analysis Date: **7/14/2017** SeqNo: **1396782** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	500	25	500.0	0	101	80	120			

Sample ID **1706G18-003BMS** SampType: **MS** TestCode: **Ammonia as N**
Client ID: **OLF-SB-21-5-7** Batch ID: **R44239** RunNo: **44239**
Prep Date: Analysis Date: **7/14/2017** SeqNo: **1396788** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	500	25	500.0	0	99.4	75	125			

Sample ID **1706G18-003BMSD** SampType: **MSD** TestCode: **Ammonia as N**
Client ID: **OLF-SB-21-5-7** Batch ID: **R44239** RunNo: **44239**
Prep Date: Analysis Date: **7/14/2017** SeqNo: **1396789** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	510	25	500.0	0	102	75	125	2.78	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB-32686** SampType: **MBLK** TestCode: **Method 4500-N-org C: TKN**
Client ID: **PBS** Batch ID: **32686** RunNo: **44083**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1391002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	ND	50								

Sample ID **LCS-32686** SampType: **LCS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **LCSS** Batch ID: **32686** RunNo: **44083**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1391003** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	1000	0	101	80	120			

Sample ID **1706G18-002BMS** SampType: **MS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-119-18.5-21** Batch ID: **32686** RunNo: **44083**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1391006** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1100	50	1000	196.0	89.6	75	125			

Sample ID **1706G18-002BMSD** SampType: **MSD** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-119-18.5-21** Batch ID: **32686** RunNo: **44083**
Prep Date: **7/7/2017** Analysis Date: **7/7/2017** SeqNo: **1391007** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1100	50	1000	196.0	95.2	75	125	5.00	20	

Sample ID **MB-32765** SampType: **MBLK** TestCode: **Method 4500-N-org C: TKN**
Client ID: **PBS** Batch ID: **32765** RunNo: **44226**
Prep Date: **7/12/2017** Analysis Date: **7/13/2017** SeqNo: **1396152** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	ND	50								

Sample ID **LCS-32765** SampType: **LCS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **LCSS** Batch ID: **32765** RunNo: **44226**
Prep Date: **7/12/2017** Analysis Date: **7/13/2017** SeqNo: **1396153** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	1000	0	102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1706G18**
27-Jul-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **1706G18-008BMS** SampType: **MS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-19-27-28** Batch ID: **32765** RunNo: **44226**
Prep Date: **7/12/2017** Analysis Date: **7/13/2017** SeqNo: **1396155** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	49	980.4	0	105	75	125			

Sample ID **1706G18-008BMSD** SampType: **MSD** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-19-27-28** Batch ID: **32765** RunNo: **44226**
Prep Date: **7/12/2017** Analysis Date: **7/13/2017** SeqNo: **1396156** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	990.1	0	104	75	125	0.357	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: INT Work Order Number: 1706G18 RcptNo: 1

Received By: **Anne Thorne** 6/30/2017 10:45:00 AM Anne Thorne

Completed By: **Anne Thorne** 6/30/2017 2:17:02 PM Anne Thorne

Reviewed By: dam 6/30/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Not Present			

Chain-of-Custody Record

Client: INTERA Inc.

Joe Tracy

Mailing Address: 6000 Uptown Blvd NE

Ste 220 ABQ 87110

Phone #: 505 246 1600

email or Fax#: jtracy@intera.com

QA/QC Package:

☑ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type) Excel

Turn-Around Time:

☑ Standard ☐ Rush

Project Name: Ortiz Landfill Waste Characterization

Project #:

Project Manager: Joe Tracy

Sampler: AKA

On Ice: ☑ Yes ☐ No

Sample Temperature: ~~5.0~~ 1.3 AT 06/30/17

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	~~RCRA 8 Metals~~ See list AT 06/30/17	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Hg 7470/7471/245.2	Nitrate/Nitrite	TKN + Ammonia	PCBs 8082 SIM	Air Bubbles (Y or N)
6/29/17	0910	Soil	OLF-SB-19-18.5-21	3x4oz jar 2xMeOH	n/a MeOH	17066-18 -001						X	X			X		X	X	X	X	
6/29/17	0913	Soil	OLF-SB-119-18.5-21	3x4oz jar 2xMeOH	n/a MeOH	-002						X	X			X		X	X	X	X	
6/29/17	1257	Soil	OLF-SB-21-5-7	3x4oz jar 2xMeOH	n/a MeOH	-003						X	X			X		X	X	X	X	
6/29/17	1329	Soil	OLF-SB-21-11-13	3x4oz jar 2xMeOH	n/a MeOH	-004						X	X			X		X	X	X	X	
6/29/17	1415	Soil	OLF-SB-22-9-11	3x4oz jar 2xMeOH	n/a MeOH	-005						X	X			X		X	X	X	X	
6/29/17	1456	Soil	OLF-SB-22-11-13	3x4oz jar 2xMeOH	n/a MeOH	-006						X	X			X		X	X	X	X	
			Trip Blank		MeOH	-007										X						
6/29/17	1015	Soil	OLF-SB-19-27-28			-008						X	X			X		X	X	X	X	
			per Joe Tracy																			
			aj 7/6/17																			

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/29/17	1846			6/30/17	0925
6/30/17	1045			6/30/17	1045

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Table 2a (continued)
Soil Analytes, Regulatory Standards, and PRRLs
Waste and Vadose Zone Characterization, Former Frank Ortiz Landfill
Santa Fe, Santa Fe County, New Mexico

Chemical	Residential Soil SSL (mg/kg)[1]	Industrial/ Occupational Soil SSL (mg/kg)	Construction Worker Soil SSL (mg/kg)	DAF 1 (mg/kg)	DAF 20 (mg/kg)	MDL (mg/kg)	PRRL (mg/kg)	Source of PRRL	NM-GS (mg/L)
2,4,6-Trichlorophenol	6.16E+01	9.16E+02	2.69E+02	3.37E-02	6.74E-01	0.16	0.16	DAF 20	NA
Metals (EPA Method 6010)									
Aluminum	7.80E+04	1.29E+06	4.14E+04	2.99E+04	5.97E+05	0.21	0.21	DAF 20	5
Arsenic	4.25E+00	2.15E+01	5.74E+01	1.50E-02	2.99E-01	0.89	0.89	DAF 20	0.1
Barium	1.56E+04	2.55E+05	4.39E+03	1.35E+02	2.70E+03	0.071	0.071	DAF 20	1
Boron	1.56E+04	2.59E+05	5.14E+04	1.25E+01	2.51E+02	0.19	0.19	DAF 20	0.75
Cobalt	NA	NA	NA	NA	NA	0.11	0.11	MDL	0.05
Cadmium	7.05E+01	1.11E+03	7.21E+01	4.69E-01	9.39E+00	0.063	0.063	DAF 20	0.01
Chromium (Total)	9.66E+01	5.05E+02	1.34E+02	1.01E+04	2.01E+05	0.094	0.094	DAF 20	0.05
Copper	3.13E+03	5.19E+04	1.42E+04	2.78E+01	5.56E+02	0.12	0.12	DAF 20	1
Iron	5.48E+04	9.08E+05	2.48E+05	3.48E+02	6.96E+03	0.75	0.75	DAF 20	1
Lead	4.00E+02	8.00E+02	8.00E+02	NA	NA	0.17	0.17	MDL	0.05
Mercury (methyl)	7.82E+02	1.30E+02	3.54E+01	4.45E-04	8.89E-03	0.10	0.10	DAF 20	0.002
Manganese	1.05E+04	1.60E+05	4.64E+02	1.31E+02	2.63E+03	0.054	0.054	DAF 20	0.2
Molybdenum	3.91E+02	6.49E+03	1.77E+03	1.99E+00	3.98E+01	0.12	0.12	DAF 20	1
Nickel	1.56E+03	2.57E+04	7.53E+02	2.42E+01	4.85E+02	0.15	0.15	DAF 20	0.2
Selenium	3.91E+02	6.49E+03	1.75E+03	5.11E-01	1.02E+01	1.8	1.8	DAF 20	0.05
Silver	3.91E+02	6.49E+03	1.77E+03	6.88E-01	1.38E+01	0.063	0.063	DAF 20	0.05
Uranium	2.34E+02	3.88E+03	2.77E+02	2.67E+01	5.33E+02	1.1	1.1	DAF 20	0.03
Zinc	2.35E+04	3.89E+05	1.06E+05	3.71E+02	7.41E+03	0.35	0.35	DAF 20	10

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 17, 2017

Joseph Tracy
Intera, Inc.
6000 Uptown Boulevard, NE Suite 220
Albuquerque, NM 87110
TEL: (505) 246-1600
FAX (505) 246-2600

RE: Ortiz Landfill Waste Characterization OrderNo.: 1707037

Dear Joseph Tracy:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/30/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued July 27, 2017.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1707037**
Date Reported: **8/17/2017**

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-7-9
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:00:00 AM
Lab ID: 1707037-001 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	2.7	0.30		mg/Kg	1	7/14/2017 12:58:16 PM	32801
Nitrogen, Nitrate (As N)	37	6.0		mg/Kg	20	7/14/2017 1:35:30 PM	32801
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	35	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	150	49		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/18/2017 11:34:24 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	4200	140		mg/Kg	50	8/14/2017 12:20:33 PM	32635
Arsenic	ND	12		mg/Kg	5	7/6/2017 11:54:52 AM	32635
Barium	140	0.48		mg/Kg	5	7/6/2017 10:33:37 AM	32635
Boron	ND	9.6		mg/Kg	5	8/14/2017 12:18:55 PM	32635
Cadmium	ND	0.48		mg/Kg	5	7/6/2017 10:33:37 AM	32635
Chromium	2.6	1.4		mg/Kg	5	7/6/2017 10:33:37 AM	32635
Cobalt	2.0	1.4		mg/Kg	5	8/14/2017 12:18:55 PM	32635
Copper	3.4	1.4		mg/Kg	5	8/14/2017 12:18:55 PM	32635
Iron	4400	120		mg/Kg	50	8/14/2017 12:20:33 PM	32635
Lead	2.9	1.2		mg/Kg	5	7/6/2017 10:33:37 AM	32635
Manganese	220	0.48		mg/Kg	5	8/14/2017 12:18:55 PM	32635
Molybdenum	ND	1.9		mg/Kg	5	8/14/2017 12:18:55 PM	32635
Nickel	3.4	2.4		mg/Kg	5	8/14/2017 12:18:55 PM	32635
Selenium	ND	12		mg/Kg	5	7/6/2017 11:54:52 AM	32635
Silver	ND	1.2		mg/Kg	5	7/6/2017 10:33:37 AM	32635
Uranium	ND	24		mg/Kg	5	8/14/2017 12:18:55 PM	32635
Zinc	ND	12		mg/Kg	5	8/14/2017 12:18:55 PM	32635
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/14/2017 1:36:00 PM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/14/2017 1:36:00 PM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/14/2017 1:36:00 PM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/14/2017 1:36:00 PM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/14/2017 1:36:00 PM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/14/2017 1:36:00 PM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/14/2017 1:36:00 PM	32733
Surr: Decachlorobiphenyl	118	26.3-128		%Rec	1	7/14/2017 1:36:00 PM	32733
Surr: Tetrachloro-m-xylene	126	20.7-151		%Rec	1	7/14/2017 1:36:00 PM	32733

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-7-9
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:00:00 AM
Lab ID: 1707037-001 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
1-Methylnaphthalene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
2-Methylnaphthalene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Acenaphthylene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Acenaphthene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Fluorene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Phenanthrene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Anthracene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Pyrene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Benz(a)anthracene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Chrysene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Benzo(b)fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Benzo(k)fluoranthene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Benzo(a)pyrene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Dibenz(a,h)anthracene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Benzo(g,h,i)perylene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.019		mg/Kg	1	7/12/2017 5:54:29 PM	32703
Surr: N-hexadecane	62.7	37.6-117		%Rec	1	7/12/2017 5:54:29 PM	32703
Surr: Benzo(e)pyrene	62.3	41.6-111		%Rec	1	7/12/2017 5:54:29 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Acenaphthylene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Aniline	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Anthracene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Azobenzene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Benzoic acid	ND	0.50		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Benzyl alcohol	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/18/2017 7:41:18 PM	32762
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-7-9
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:00:00 AM
Lab ID: 1707037-001 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/18/2017 7:41:18 PM	32762
4-Chloroaniline	ND	0.50		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2-Chlorophenol	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Chrysene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Dibenzofuran	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Diethyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/18/2017 7:41:18 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Fluorene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Hexachloroethane	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Isophorone	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2-Methylphenol	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Naphthalene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2-Nitroaniline	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-7-9
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:00:00 AM
Lab ID: 1707037-001 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
4-Nitroaniline	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Nitrobenzene	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2-Nitrophenol	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
4-Nitrophenol	ND	0.25		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Pentachlorophenol	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Phenanthrene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Phenol	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Pyrene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Pyridine	ND	0.40		mg/Kg	1	7/18/2017 7:41:18 PM	32762
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/18/2017 7:41:18 PM	32762
Surr: 2-Fluorophenol	48.3	21.4-101		%Rec	1	7/18/2017 7:41:18 PM	32762
Surr: Phenol-d5	58.1	32-110		%Rec	1	7/18/2017 7:41:18 PM	32762
Surr: 2,4,6-Tribromophenol	60.8	38.7-115		%Rec	1	7/18/2017 7:41:18 PM	32762
Surr: Nitrobenzene-d5	65.1	26.2-120		%Rec	1	7/18/2017 7:41:18 PM	32762
Surr: 2-Fluorobiphenyl	72.9	36.2-124		%Rec	1	7/18/2017 7:41:18 PM	32762
Surr: 4-Terphenyl-d14	54.2	15-114		%Rec	1	7/18/2017 7:41:18 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.030		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Toluene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Ethylbenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Methyl tert-butyl ether (MTBE)	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2,4-Trimethylbenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,3,5-Trimethylbenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2-Dichloroethane (EDC)	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2-Dibromoethane (EDB)	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Naphthalene	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1-Methylnaphthalene	ND	0.24		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
2-Methylnaphthalene	ND	0.24		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Acetone	ND	0.89		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Bromobenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Bromodichloromethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Bromoform	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Bromomethane	ND	0.18		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
2-Butanone	ND	0.60		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Carbon disulfide	ND	0.60		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Carbon tetrachloride	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978

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PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-7-9
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:00:00 AM
Lab ID: 1707037-001 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Chloroethane	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Chloroform	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Chloromethane	ND	0.18		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
2-Chlorotoluene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
4-Chlorotoluene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
cis-1,2-DCE	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
cis-1,3-Dichloropropene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2-Dibromo-3-chloropropane	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Dibromochloromethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Dibromomethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2-Dichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,3-Dichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,4-Dichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Dichlorodifluoromethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,1-Dichloroethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,1-Dichloroethene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2-Dichloropropane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,3-Dichloropropane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
2,2-Dichloropropane	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,1-Dichloropropene	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Hexachlorobutadiene	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
2-Hexanone	ND	0.60		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Isopropylbenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
4-Isopropyltoluene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
4-Methyl-2-pentanone	ND	0.60		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Methylene chloride	ND	0.18		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
n-Butylbenzene	ND	0.18		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
n-Propylbenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
sec-Butylbenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Styrene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
tert-Butylbenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,1,1,2-Tetrachloroethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,1,2,2-Tetrachloroethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Tetrachloroethene (PCE)	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
trans-1,2-DCE	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
trans-1,3-Dichloropropene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2,3-Trichlorobenzene	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2,4-Trichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-7-9
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:00:00 AM
Lab ID: 1707037-001 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,1,2-Trichloroethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Trichloroethene (TCE)	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Trichlorofluoromethane	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
1,2,3-Trichloropropane	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Vinyl chloride	ND	0.060		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Xylenes, Total	ND	0.12		mg/Kg	1	7/3/2017 6:54:45 PM	B43978
Surr: Dibromofluoromethane	114	70-130		%Rec	1	7/3/2017 6:54:45 PM	B43978
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	7/3/2017 6:54:45 PM	B43978
Surr: Toluene-d8	101	70-130		%Rec	1	7/3/2017 6:54:45 PM	B43978
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	7/3/2017 6:54:45 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-13-15
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:25:00 AM
Lab ID: 1707037-002 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/14/2017 1:47:55 PM	32801
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/14/2017 1:47:55 PM	32801
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	42	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	55	49		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.033		mg/Kg	1	7/18/2017 11:36:03 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	4300	150		mg/Kg	50	8/14/2017 12:23:40 PM	32635
Arsenic	ND	12		mg/Kg	5	7/6/2017 11:56:05 AM	32635
Barium	43	0.49		mg/Kg	5	7/6/2017 10:34:57 AM	32635
Boron	ND	9.9		mg/Kg	5	8/14/2017 12:22:03 PM	32635
Cadmium	ND	0.49		mg/Kg	5	7/6/2017 10:34:57 AM	32635
Chromium	3.1	1.5		mg/Kg	5	7/6/2017 10:34:57 AM	32635
Cobalt	1.6	1.5		mg/Kg	5	8/14/2017 12:22:03 PM	32635
Copper	3.4	1.5		mg/Kg	5	8/14/2017 12:22:03 PM	32635
Iron	4300	120		mg/Kg	50	8/14/2017 12:23:40 PM	32635
Lead	1.2	1.2		mg/Kg	5	7/6/2017 10:34:57 AM	32635
Manganese	160	0.49		mg/Kg	5	8/14/2017 12:22:03 PM	32635
Molybdenum	ND	2.0		mg/Kg	5	8/14/2017 12:22:03 PM	32635
Nickel	3.0	2.5		mg/Kg	5	8/14/2017 12:22:03 PM	32635
Selenium	ND	12		mg/Kg	5	7/6/2017 11:56:05 AM	32635
Silver	ND	1.2		mg/Kg	5	7/6/2017 10:34:57 AM	32635
Uranium	ND	25		mg/Kg	5	8/14/2017 12:22:03 PM	32635
Zinc	ND	12		mg/Kg	5	8/14/2017 12:22:03 PM	32635
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/14/2017 2:09:00 PM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/14/2017 2:09:00 PM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/14/2017 2:09:00 PM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/14/2017 2:09:00 PM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/14/2017 2:09:00 PM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/14/2017 2:09:00 PM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/14/2017 2:09:00 PM	32733
Surr: Decachlorobiphenyl	133	26.3-128	S	%Rec	1	7/14/2017 2:09:00 PM	32733
Surr: Tetrachloro-m-xylene	134	20.7-151		%Rec	1	7/14/2017 2:09:00 PM	32733

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-13-15
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:25:00 AM
Lab ID: 1707037-002 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 6:18:46 PM	32703
Surr: N-hexadecane	79.8	37.6-117		%Rec	1	7/12/2017 6:18:46 PM	32703
Surr: Benzo(e)pyrene	90.2	41.6-111		%Rec	1	7/12/2017 6:18:46 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Acenaphthylene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Aniline	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Anthracene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Azobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Benzoic acid	ND	0.49		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Benzyl alcohol	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/18/2017 9:08:35 PM	32762
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762

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PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-13-15
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:25:00 AM
Lab ID: 1707037-002 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/18/2017 9:08:35 PM	32762
4-Chloroaniline	ND	0.49		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2-Chlorophenol	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Chrysene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Dibenzofuran	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Diethyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/18/2017 9:08:35 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2,4-Dinitrophenol	ND	0.49		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Fluorene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Hexachloroethane	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Isophorone	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2-Methylphenol	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Naphthalene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2-Nitroaniline	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-13-15
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:25:00 AM
Lab ID: 1707037-002 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
4-Nitroaniline	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Nitrobenzene	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2-Nitrophenol	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
4-Nitrophenol	ND	0.25		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Pentachlorophenol	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Phenanthrene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Phenol	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Pyrene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Pyridine	ND	0.40		mg/Kg	1	7/18/2017 9:08:35 PM	32762
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/18/2017 9:08:35 PM	32762
Surr: 2-Fluorophenol	46.9	21.4-101		%Rec	1	7/18/2017 9:08:35 PM	32762
Surr: Phenol-d5	53.1	32-110		%Rec	1	7/18/2017 9:08:35 PM	32762
Surr: 2,4,6-Tribromophenol	54.2	38.7-115		%Rec	1	7/18/2017 9:08:35 PM	32762
Surr: Nitrobenzene-d5	57.9	26.2-120		%Rec	1	7/18/2017 9:08:35 PM	32762
Surr: 2-Fluorobiphenyl	62.1	36.2-124		%Rec	1	7/18/2017 9:08:35 PM	32762
Surr: 4-Terphenyl-d14	49.5	15-114		%Rec	1	7/18/2017 9:08:35 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.030		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Toluene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Ethylbenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Methyl tert-butyl ether (MTBE)	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2,4-Trimethylbenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,3,5-Trimethylbenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2-Dichloroethane (EDC)	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2-Dibromoethane (EDB)	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Naphthalene	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1-Methylnaphthalene	ND	0.24		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
2-Methylnaphthalene	ND	0.24		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Acetone	ND	0.90		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Bromobenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Bromodichloromethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Bromoform	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Bromomethane	ND	0.18		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
2-Butanone	ND	0.60		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Carbon disulfide	ND	0.60		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Carbon tetrachloride	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-13-15
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:25:00 AM
Lab ID: 1707037-002 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Chloroethane	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Chloroform	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Chloromethane	ND	0.18		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
2-Chlorotoluene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
4-Chlorotoluene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
cis-1,2-DCE	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
cis-1,3-Dichloropropene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2-Dibromo-3-chloropropane	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Dibromochloromethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Dibromomethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2-Dichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,3-Dichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,4-Dichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Dichlorodifluoromethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,1-Dichloroethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,1-Dichloroethene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2-Dichloropropane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,3-Dichloropropane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
2,2-Dichloropropane	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,1-Dichloropropene	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Hexachlorobutadiene	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
2-Hexanone	ND	0.60		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Isopropylbenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
4-Isopropyltoluene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
4-Methyl-2-pentanone	ND	0.60		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Methylene chloride	ND	0.18		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
n-Butylbenzene	ND	0.18		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
n-Propylbenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
sec-Butylbenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Styrene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
tert-Butylbenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,1,1,2-Tetrachloroethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,1,2,2-Tetrachloroethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Tetrachloroethene (PCE)	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
trans-1,2-DCE	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
trans-1,3-Dichloropropene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2,3-Trichlorobenzene	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2,4-Trichlorobenzene	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-24-13-15
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 9:25:00 AM
Lab ID: 1707037-002 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,1,2-Trichloroethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Trichloroethene (TCE)	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Trichlorofluoromethane	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
1,2,3-Trichloropropane	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Vinyl chloride	ND	0.060		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Xylenes, Total	ND	0.12		mg/Kg	1	7/3/2017 8:21:34 PM	B43978
Surr: Dibromofluoromethane	113	70-130		%Rec	1	7/3/2017 8:21:34 PM	B43978
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	7/3/2017 8:21:34 PM	B43978
Surr: Toluene-d8	97.7	70-130		%Rec	1	7/3/2017 8:21:34 PM	B43978
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	7/3/2017 8:21:34 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-21-23
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 11:15:00 AM
Lab ID: 1707037-003 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/14/2017 2:12:44 PM	32801
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/14/2017 2:12:44 PM	32801
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	ND	48		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.033		mg/Kg	1	7/18/2017 11:37:43 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	5200	150		mg/Kg	50	8/14/2017 12:26:46 PM	32635
Arsenic	ND	12		mg/Kg	5	7/6/2017 11:57:17 AM	32635
Barium	66	0.49		mg/Kg	5	7/6/2017 10:44:44 AM	32635
Boron	ND	9.9		mg/Kg	5	8/14/2017 12:25:09 PM	32635
Cadmium	ND	0.49		mg/Kg	5	7/6/2017 10:44:44 AM	32635
Chromium	4.3	1.5		mg/Kg	5	7/6/2017 10:44:44 AM	32635
Cobalt	2.1	1.5		mg/Kg	5	8/14/2017 12:25:09 PM	32635
Copper	3.5	1.5		mg/Kg	5	8/14/2017 12:25:09 PM	32635
Iron	5400	120		mg/Kg	50	8/14/2017 12:26:46 PM	32635
Lead	ND	1.2		mg/Kg	5	7/6/2017 10:44:44 AM	32635
Manganese	170	0.49		mg/Kg	5	8/14/2017 12:25:09 PM	32635
Molybdenum	ND	2.0		mg/Kg	5	8/14/2017 12:25:09 PM	32635
Nickel	3.3	2.5		mg/Kg	5	8/14/2017 12:25:09 PM	32635
Selenium	ND	12		mg/Kg	5	7/6/2017 11:57:17 AM	32635
Silver	ND	1.2		mg/Kg	5	7/6/2017 10:44:44 AM	32635
Uranium	ND	25		mg/Kg	5	8/14/2017 12:25:09 PM	32635
Zinc	ND	12		mg/Kg	5	8/14/2017 12:25:09 PM	32635
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/14/2017 2:42:00 PM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/14/2017 2:42:00 PM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/14/2017 2:42:00 PM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/14/2017 2:42:00 PM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/14/2017 2:42:00 PM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/14/2017 2:42:00 PM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/14/2017 2:42:00 PM	32733
Surr: Decachlorobiphenyl	74.8	26.3-128		%Rec	1	7/14/2017 2:42:00 PM	32733
Surr: Tetrachloro-m-xylene	80.0	20.7-151		%Rec	1	7/14/2017 2:42:00 PM	32733

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-21-23
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 11:15:00 AM
Lab ID: 1707037-003 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 6:43:08 PM	32703
Surr: N-hexadecane	89.5	37.6-117		%Rec	1	7/12/2017 6:43:08 PM	32703
Surr: Benzo(e)pyrene	92.1	41.6-111		%Rec	1	7/12/2017 6:43:08 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Acenaphthylene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Aniline	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Anthracene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Azobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Benzoic acid	ND	0.50		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Benzyl alcohol	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/18/2017 9:37:28 PM	32762
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-21-23
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 11:15:00 AM
Lab ID: 1707037-003 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/18/2017 9:37:28 PM	32762
4-Chloroaniline	ND	0.50		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2-Chlorophenol	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Chrysene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Dibenzofuran	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Diethyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/18/2017 9:37:28 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Fluoranthene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Fluorene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Hexachloroethane	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Isophorone	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2-Methylphenol	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Naphthalene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2-Nitroaniline	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-21-23
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 11:15:00 AM
Lab ID: 1707037-003 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
4-Nitroaniline	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Nitrobenzene	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2-Nitrophenol	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
4-Nitrophenol	ND	0.25		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Pentachlorophenol	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Phenanthrene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Phenol	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Pyrene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Pyridine	ND	0.40		mg/Kg	1	7/18/2017 9:37:28 PM	32762
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/18/2017 9:37:28 PM	32762
Surr: 2-Fluorophenol	40.7	21.4-101		%Rec	1	7/18/2017 9:37:28 PM	32762
Surr: Phenol-d5	49.7	32-110		%Rec	1	7/18/2017 9:37:28 PM	32762
Surr: 2,4,6-Tribromophenol	58.5	38.7-115		%Rec	1	7/18/2017 9:37:28 PM	32762
Surr: Nitrobenzene-d5	57.5	26.2-120		%Rec	1	7/18/2017 9:37:28 PM	32762
Surr: 2-Fluorobiphenyl	63.5	36.2-124		%Rec	1	7/18/2017 9:37:28 PM	32762
Surr: 4-Terphenyl-d14	54.9	15-114		%Rec	1	7/18/2017 9:37:28 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.031		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Toluene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Ethylbenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Methyl tert-butyl ether (MTBE)	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2,4-Trimethylbenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,3,5-Trimethylbenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2-Dichloroethane (EDC)	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2-Dibromoethane (EDB)	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Naphthalene	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1-Methylnaphthalene	ND	0.25		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
2-Methylnaphthalene	ND	0.25		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Acetone	ND	0.93		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Bromobenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Bromodichloromethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Bromoform	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Bromomethane	ND	0.19		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
2-Butanone	ND	0.62		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Carbon disulfide	ND	0.62		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Carbon tetrachloride	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-21-23
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 11:15:00 AM
Lab ID: 1707037-003 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Chloroethane	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Chloroform	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Chloromethane	ND	0.19		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
2-Chlorotoluene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
4-Chlorotoluene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
cis-1,2-DCE	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
cis-1,3-Dichloropropene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2-Dibromo-3-chloropropane	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Dibromochloromethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Dibromomethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2-Dichlorobenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,3-Dichlorobenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,4-Dichlorobenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Dichlorodifluoromethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,1-Dichloroethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,1-Dichloroethene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2-Dichloropropane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,3-Dichloropropane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
2,2-Dichloropropane	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,1-Dichloropropene	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Hexachlorobutadiene	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
2-Hexanone	ND	0.62		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Isopropylbenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
4-Isopropyltoluene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
4-Methyl-2-pentanone	ND	0.62		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Methylene chloride	ND	0.19		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
n-Butylbenzene	ND	0.19		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
n-Propylbenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
sec-Butylbenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Styrene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
tert-Butylbenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,1,1,2-Tetrachloroethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,1,2,2-Tetrachloroethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Tetrachloroethene (PCE)	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
trans-1,2-DCE	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
trans-1,3-Dichloropropene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2,3-Trichlorobenzene	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2,4-Trichlorobenzene	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-21-23
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 11:15:00 AM
Lab ID: 1707037-003 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,1,2-Trichloroethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Trichloroethene (TCE)	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Trichlorofluoromethane	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
1,2,3-Trichloropropane	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Vinyl chloride	ND	0.062		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Xylenes, Total	ND	0.12		mg/Kg	1	7/3/2017 8:50:21 PM	B43978
Surr: Dibromofluoromethane	110	70-130		%Rec	1	7/3/2017 8:50:21 PM	B43978
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	7/3/2017 8:50:21 PM	B43978
Surr: Toluene-d8	100	70-130		%Rec	1	7/3/2017 8:50:21 PM	B43978
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	7/3/2017 8:50:21 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-40-42
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 2:00:00 PM
Lab ID: 1707037-004 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/14/2017 3:02:22 PM	32801
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/14/2017 3:02:22 PM	32801
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/14/2017 4:43:00 PM	R44239
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	ND	48		mg/Kg	1	7/7/2017 5:05:00 PM	32686
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.031		mg/Kg	1	7/18/2017 11:39:24 AM	32826
EPA METHOD 6010B: SOIL METALS						Analyst:	**TES**
Aluminum	4300	150		mg/Kg	50	8/11/2017 6:02:30 PM	32635
Arsenic	ND	12		mg/Kg	5	7/6/2017 11:58:30 AM	32635
Barium	57	0.50		mg/Kg	5	7/6/2017 10:46:06 AM	32635
Boron	ND	10		mg/Kg	5	8/14/2017 12:28:16 PM	32635
Cadmium	ND	0.50		mg/Kg	5	7/6/2017 10:46:06 AM	32635
Chromium	2.3	1.5		mg/Kg	5	7/6/2017 10:46:06 AM	32635
Cobalt	ND	1.5		mg/Kg	5	8/14/2017 12:28:16 PM	32635
Copper	3.0	1.5		mg/Kg	5	8/14/2017 12:28:16 PM	32635
Iron	4200	120		mg/Kg	50	8/11/2017 6:02:30 PM	32635
Lead	1.5	1.2		mg/Kg	5	7/6/2017 10:46:06 AM	32635
Manganese	300	0.50		mg/Kg	5	8/14/2017 12:28:16 PM	32635
Molybdenum	ND	2.0		mg/Kg	5	8/14/2017 12:28:16 PM	32635
Nickel	ND	2.5		mg/Kg	5	8/14/2017 12:28:16 PM	32635
Selenium	ND	12		mg/Kg	5	7/13/2017 11:02:52 AM	32635
Silver	ND	1.2		mg/Kg	5	7/6/2017 10:46:06 AM	32635
Uranium	ND	25		mg/Kg	5	8/14/2017 12:28:16 PM	32635
Zinc	ND	12		mg/Kg	5	8/14/2017 12:28:16 PM	32635
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.019		mg/Kg	1	7/14/2017 3:16:00 PM	32733
Aroclor 1221	ND	0.019		mg/Kg	1	7/14/2017 3:16:00 PM	32733
Aroclor 1232	ND	0.019		mg/Kg	1	7/14/2017 3:16:00 PM	32733
Aroclor 1242	ND	0.019		mg/Kg	1	7/14/2017 3:16:00 PM	32733
Aroclor 1248	ND	0.019		mg/Kg	1	7/14/2017 3:16:00 PM	32733
Aroclor 1254	ND	0.019		mg/Kg	1	7/14/2017 3:16:00 PM	32733
Aroclor 1260	ND	0.019		mg/Kg	1	7/14/2017 3:16:00 PM	32733
Surr: Decachlorobiphenyl	123	26.3-128		%Rec	1	7/14/2017 3:16:00 PM	32733
Surr: Tetrachloro-m-xylene	135	20.7-151		%Rec	1	7/14/2017 3:16:00 PM	32733

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-40-42
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 2:00:00 PM
Lab ID: 1707037-004 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: PAHS						Analyst:	**DAM**
Naphthalene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
1-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
2-Methylnaphthalene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Acenaphthylene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Acenaphthene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Fluorene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Phenanthrene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Anthracene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Pyrene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Benz(a)anthracene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Chrysene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Benzo(b)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Benzo(k)fluoranthene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Benzo(a)pyrene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Dibenz(a,h)anthracene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Benzo(g,h,i)perylene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Indeno(1,2,3-cd)pyrene	ND	0.020		mg/Kg	1	7/12/2017 7:07:29 PM	32703
Surr: N-hexadecane	93.2	37.6-117		%Rec	1	7/12/2017 7:07:29 PM	32703
Surr: Benzo(e)pyrene	102	41.6-111		%Rec	1	7/12/2017 7:07:29 PM	32703
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Acenaphthylene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Aniline	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Anthracene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Azobenzene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Benz(a)anthracene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Benzo(a)pyrene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Benzo(b)fluoranthene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Benzo(g,h,i)perylene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Benzo(k)fluoranthene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Benzoic acid	ND	0.48		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Benzyl alcohol	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Bis(2-chloroethoxy)methane	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Bis(2-chloroethyl)ether	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.48		mg/Kg	1	7/18/2017 10:06:32 PM	32762
4-Bromophenyl phenyl ether	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Butyl benzyl phthalate	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-40-42
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 2:00:00 PM
Lab ID: 1707037-004 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Carbazole	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
4-Chloro-3-methylphenol	ND	0.48		mg/Kg	1	7/18/2017 10:06:32 PM	32762
4-Chloroaniline	ND	0.48		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2-Chloronaphthalene	ND	0.24		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2-Chlorophenol	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
4-Chlorophenyl phenyl ether	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Chrysene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Di-n-butyl phthalate	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Di-n-octyl phthalate	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Dibenz(a,h)anthracene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Dibenzofuran	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
1,2-Dichlorobenzene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
1,3-Dichlorobenzene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
1,4-Dichlorobenzene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
3,3´-Dichlorobenzidine	ND	0.24		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Diethyl phthalate	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Dimethyl phthalate	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2,4-Dimethylphenol	ND	0.29		mg/Kg	1	7/18/2017 10:06:32 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2,4-Dinitrophenol	ND	0.48		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2,4-Dinitrotoluene	ND	0.48		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2,6-Dinitrotoluene	ND	0.48		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Fluoranthene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Fluorene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Hexachlorobenzene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Hexachlorobutadiene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Hexachlorocyclopentadiene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Hexachloroethane	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Isophorone	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
1-Methylnaphthalene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2-Methylnaphthalene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2-Methylphenol	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
3+4-Methylphenol	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
N-Nitrosodi-n-propylamine	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
N-Nitrosodiphenylamine	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Naphthalene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2-Nitroaniline	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-40-42
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 2:00:00 PM
Lab ID: 1707037-004 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
4-Nitroaniline	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Nitrobenzene	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2-Nitrophenol	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
4-Nitrophenol	ND	0.24		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Pentachlorophenol	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Phenanthrene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Phenol	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Pyrene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Pyridine	ND	0.39		mg/Kg	1	7/18/2017 10:06:32 PM	32762
1,2,4-Trichlorobenzene	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2,4,5-Trichlorophenol	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
2,4,6-Trichlorophenol	ND	0.19		mg/Kg	1	7/18/2017 10:06:32 PM	32762
Surr: 2-Fluorophenol	55.2	21.4-101		%Rec	1	7/18/2017 10:06:32 PM	32762
Surr: Phenol-d5	63.4	32-110		%Rec	1	7/18/2017 10:06:32 PM	32762
Surr: 2,4,6-Tribromophenol	61.4	38.7-115		%Rec	1	7/18/2017 10:06:32 PM	32762
Surr: Nitrobenzene-d5	69.2	26.2-120		%Rec	1	7/18/2017 10:06:32 PM	32762
Surr: 2-Fluorobiphenyl	71.4	36.2-124		%Rec	1	7/18/2017 10:06:32 PM	32762
Surr: 4-Terphenyl-d14	58.1	15-114		%Rec	1	7/18/2017 10:06:32 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.028		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Toluene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Ethylbenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Methyl tert-butyl ether (MTBE)	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2,4-Trimethylbenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,3,5-Trimethylbenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2-Dichloroethane (EDC)	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2-Dibromoethane (EDB)	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Naphthalene	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1-Methylnaphthalene	ND	0.22		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
2-Methylnaphthalene	ND	0.22		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Acetone	ND	0.84		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Bromobenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Bromodichloromethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Bromoform	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Bromomethane	ND	0.17		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
2-Butanone	ND	0.56		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Carbon disulfide	ND	0.56		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Carbon tetrachloride	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-40-42
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 2:00:00 PM
Lab ID: 1707037-004 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chlorobenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Chloroethane	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Chloroform	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Chloromethane	ND	0.17		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
2-Chlorotoluene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
4-Chlorotoluene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
cis-1,2-DCE	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
cis-1,3-Dichloropropene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2-Dibromo-3-chloropropane	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Dibromochloromethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Dibromomethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2-Dichlorobenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,3-Dichlorobenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,4-Dichlorobenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Dichlorodifluoromethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,1-Dichloroethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,1-Dichloroethene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2-Dichloropropane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,3-Dichloropropane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
2,2-Dichloropropane	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,1-Dichloropropene	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Hexachlorobutadiene	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
2-Hexanone	ND	0.56		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Isopropylbenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
4-Isopropyltoluene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
4-Methyl-2-pentanone	ND	0.56		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Methylene chloride	ND	0.17		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
n-Butylbenzene	ND	0.17		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
n-Propylbenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
sec-Butylbenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Styrene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
tert-Butylbenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,1,1,2-Tetrachloroethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,1,2,2-Tetrachloroethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Tetrachloroethene (PCE)	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
trans-1,2-DCE	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
trans-1,3-Dichloropropene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2,3-Trichlorobenzene	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2,4-Trichlorobenzene	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-25-40-42
Project: Ortiz Landfill Waste Characterization **Collection Date:** 6/30/2017 2:00:00 PM
Lab ID: 1707037-004 **Matrix:** MEOH (SOIL) **Received Date:** 6/30/2017 4:44:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,1-Trichloroethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,1,2-Trichloroethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Trichloroethene (TCE)	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Trichlorofluoromethane	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
1,2,3-Trichloropropane	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Vinyl chloride	ND	0.056		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Xylenes, Total	ND	0.11		mg/Kg	1	7/3/2017 11:13:27 PM	B43978
Surr: Dibromofluoromethane	115	70-130		%Rec	1	7/3/2017 11:13:27 PM	B43978
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	7/3/2017 11:13:27 PM	B43978
Surr: Toluene-d8	100	70-130		%Rec	1	7/3/2017 11:13:27 PM	B43978
Surr: 4-Bromofluorobenzene	94.0	70-130		%Rec	1	7/3/2017 11:13:27 PM	B43978

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB-32801** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **32801** RunNo: **44224**
Prep Date: **7/14/2017** Analysis Date: **7/14/2017** SeqNo: **1397449** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								

Sample ID **LCS-32801** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **32801** RunNo: **44224**
Prep Date: **7/14/2017** Analysis Date: **7/14/2017** SeqNo: **1397450** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	96.3	90	110			
Nitrogen, Nitrate (As N)	7.7	0.30	7.500	0	102	90	110			

Sample ID **1707037-001BMS** SampType: **ms** TestCode: **EPA Method 300.0: Anions**
Client ID: **OLF-SB-24-7-9** Batch ID: **32801** RunNo: **44224**
Prep Date: **7/14/2017** Analysis Date: **7/14/2017** SeqNo: **1397464** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	5.1	0.30	3.000	2.658	81.8	84.3	103			S

Sample ID **1707037-001BMSD** SampType: **msd** TestCode: **EPA Method 300.0: Anions**
Client ID: **OLF-SB-24-7-9** Batch ID: **32801** RunNo: **44224**
Prep Date: **7/14/2017** Analysis Date: **7/14/2017** SeqNo: **1397465** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	5.3	0.30	3.000	2.658	87.8	84.3	103	3.43	20	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID	**MB-32733**	SampType:	**MBLK**	TestCode:	**EPA Method 8082: PCB's**
Client ID:	**PBS**	Batch ID:	**32733**	RunNo:	**44244**
Prep Date:	**7/11/2017**	Analysis Date:	**7/14/2017**	SeqNo:	**1397259** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.060		0.06250		95.2	26.3	128			
Surr: Tetrachloro-m-xylene	0.062		0.06250		99.2	20.7	151			

Sample ID	**LCS-32733**	SampType:	**LCS**	TestCode:	**EPA Method 8082: PCB's**
Client ID:	**LCSS**	Batch ID:	**32733**	RunNo:	**44244**
Prep Date:	**7/11/2017**	Analysis Date:	**7/14/2017**	SeqNo:	**1397262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.21	0.020	0.1250	0	167	15	195			
Aroclor 1260	0.13	0.020	0.1250	0	104	24	140			
Surr: Decachlorobiphenyl	0.062		0.06250		98.8	26.3	128			
Surr: Tetrachloro-m-xylene	0.062		0.06250		99.2	20.7	151			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**	
Client ID: **PBS**	Batch ID: **B43978**	RunNo: **43978**	
Prep Date:	Analysis Date: **7/3/2017**	SeqNo: **1386378**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **B43978** RunNo: **43978**
Prep Date: Analysis Date: **7/3/2017** SeqNo: **1386378** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.50		0.5000		99.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.5	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.5	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **B43978** RunNo: **43978**
Prep Date: Analysis Date: **7/3/2017** SeqNo: **1386379** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	70	130			
Toluene	1.1	0.050	1.000	0	105	70	130			
Chlorobenzene	1.1	0.050	1.000	0	113	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **B43978** RunNo: **43978**
Prep Date: Analysis Date: **7/3/2017** SeqNo: **1386379** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.0	0.050	1.000	0	103	68.8	161			
Trichloroethene (TCE)	0.95	0.050	1.000	0	94.5	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.5	70	130			
Surr: Toluene-d8	0.52		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.9	70	130			

Sample ID **1707037-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **OLF-SB-24-7-9** Batch ID: **B43978** RunNo: **43978**
Prep Date: Analysis Date: **7/3/2017** SeqNo: **1386382** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.4	0.030	1.192	0	120	61.9	146			
Toluene	1.2	0.060	1.192	0	96.7	70	130			
Chlorobenzene	1.3	0.060	1.192	0	106	70	130			
1,1-Dichloroethene	1.9	0.060	1.192	0	159	37.1	170			
Trichloroethene (TCE)	1.3	0.060	1.192	0	109	49.8	150			
Surr: Dibromofluoromethane	0.66		0.5960		110	70	130			
Surr: 1,2-Dichloroethane-d4	0.69		0.5960		115	70	130			
Surr: Toluene-d8	0.60		0.5960		101	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5960		89.6	70	130			

Sample ID **1707037-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **OLF-SB-24-7-9** Batch ID: **B43978** RunNo: **43978**
Prep Date: Analysis Date: **7/3/2017** SeqNo: **1386383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.4	0.030	1.192	0	114	61.9	146	4.71	20	
Toluene	1.1	0.060	1.192	0	88.7	70	130	8.67	20	
Chlorobenzene	1.2	0.060	1.192	0	104	70	130	1.78	20	
1,1-Dichloroethene	1.7	0.060	1.192	0	147	37.1	170	7.90	20	
Trichloroethene (TCE)	1.2	0.060	1.192	0	104	49.8	150	4.62	20	
Surr: Dibromofluoromethane	0.67		0.5960		112	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.68		0.5960		114	70	130	0	0	
Surr: Toluene-d8	0.58		0.5960		97.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.56		0.5960		93.4	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **lcs-32762** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS** Batch ID: **32762** RunNo: **44288**
Prep Date: **7/12/2017** Analysis Date: **7/17/2017** SeqNo: **1398609** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.1	39.4	110			
4-Chloro-3-methylphenol	2.0	0.50	3.330	0	60.5	41.6	108			
2-Chlorophenol	1.9	0.20	3.330	0	57.8	35	107			
1,4-Dichlorobenzene	0.95	0.20	1.670	0	57.0	31	105			
2,4-Dinitrotoluene	0.99	0.50	1.670	0	59.1	35.6	101			
N-Nitrosodi-n-propylamine	0.85	0.20	1.670	0	50.8	26	100			
4-Nitrophenol	2.3	0.25	3.330	0	68.7	34.1	106			
Pentachlorophenol	1.9	0.40	3.330	0	55.7	35.3	95.4			
Phenol	2.0	0.20	3.330	0	60.4	39.3	96.5			
Pyrene	1.2	0.20	1.670	0	73.8	47.8	95.7			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	69.1	36.6	117			
Surr: 2-Fluorophenol	1.6		3.330		47.5	21.4	101			
Surr: Phenol-d5	1.7		3.330		51.6	32	110			
Surr: 2,4,6-Tribromophenol	2.0		3.330		60.9	38.7	115			
Surr: Nitrobenzene-d5	1.1		1.670		64.0	26.2	120			
Surr: 2-Fluorobiphenyl	1.1		1.670		66.5	36.2	124			
Surr: 4-Terphenyl-d14	0.87		1.670		52.2	15	114			

Sample ID **mb-32762** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS** Batch ID: **32762** RunNo: **44288**
Prep Date: **7/12/2017** Analysis Date: **7/17/2017** SeqNo: **1398610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **mb-32762**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **32762**	RunNo: **44288**			
Prep Date: **7/12/2017**	Analysis Date: **7/17/2017**	SeqNo: **1398610**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **mb-32762** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS** Batch ID: **32762** RunNo: **44288**
Prep Date: **7/12/2017** Analysis Date: **7/17/2017** SeqNo: **1398610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.0		3.330		60.2	21.4	101			
Surr: Phenol-d5	2.1		3.330		63.1	32	110			
Surr: 2,4,6-Tribromophenol	2.1		3.330		61.8	38.7	115			
Surr: Nitrobenzene-d5	1.3		1.670		76.7	26.2	120			
Surr: 2-Fluorobiphenyl	1.3		1.670		75.5	36.2	124			
Surr: 4-Terphenyl-d14	0.96		1.670		57.2	15	114			

Sample ID **1707037-001ams** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **OLF-SB-24-7-9** Batch ID: **32762** RunNo: **44317**
Prep Date: **7/12/2017** Analysis Date: **7/18/2017** SeqNo: **1399709** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.668	0	75.3	24.7	111			
4-Chloro-3-methylphenol	2.2	0.50	3.327	0	67.5	21.7	108			
2-Chlorophenol	2.1	0.20	3.327	0	61.8	21.9	103			
1,4-Dichlorobenzene	0.97	0.20	1.668	0	58.2	15.8	93.9			
2,4-Dinitrotoluene	1.0	0.50	1.668	0	60.2	19.9	101			
N-Nitrosodi-n-propylamine	1.0	0.20	1.668	0	62.4	17.7	100			
4-Nitrophenol	2.3	0.25	3.327	0	70.1	19.3	112			
Pentachlorophenol	1.7	0.40	3.327	0	50.7	20.5	105			
Phenol	2.1	0.20	3.327	0	63.2	23.1	101			
Pyrene	1.5	0.20	1.668	0	89.0	18.3	113			
1,2,4-Trichlorobenzene	1.2	0.20	1.668	0	70.7	21.8	108			
Surr: 2-Fluorophenol	1.9		3.327		56.4	21.4	101			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **1707037-001ams** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **OLF-SB-24-7-9** Batch ID: **32762** RunNo: **44317**
Prep Date: **7/12/2017** Analysis Date: **7/18/2017** SeqNo: **1399709** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	2.3		3.327		68.9	32	110			
Surr: 2,4,6-Tribromophenol	2.2		3.327		67.5	38.7	115			
Surr: Nitrobenzene-d5	1.2		1.668		74.1	26.2	120			
Surr: 2-Fluorobiphenyl	1.3		1.668		80.6	36.2	124			
Surr: 4-Terphenyl-d14	1.0		1.668		59.8	15	114			

Sample ID **1707037-001amsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **OLF-SB-24-7-9** Batch ID: **32762** RunNo: **44317**
Prep Date: **7/12/2017** Analysis Date: **7/18/2017** SeqNo: **1399710** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.1	0.20	1.668	0	68.6	24.7	111	9.44	30.2	
4-Chloro-3-methylphenol	2.0	0.50	3.326	0	59.9	21.7	108	11.9	37.2	
2-Chlorophenol	1.7	0.20	3.326	0	52.4	21.9	103	16.5	48	
1,4-Dichlorobenzene	0.89	0.20	1.668	0	53.4	15.8	93.9	8.73	40.6	
2,4-Dinitrotoluene	0.90	0.50	1.668	0	53.8	19.9	101	11.3	47.7	
N-Nitrosodi-n-propylamine	0.89	0.20	1.668	0	53.2	17.7	100	15.9	52.5	
4-Nitrophenol	2.2	0.25	3.326	0	64.9	19.3	112	7.61	36.6	
Pentachlorophenol	1.5	0.40	3.326	0	46.1	20.5	105	9.65	65.5	
Phenol	1.8	0.20	3.326	0	54.6	23.1	101	14.6	44	
Pyrene	1.4	0.20	1.668	0	82.1	18.3	113	8.11	42.1	
1,2,4-Trichlorobenzene	1.1	0.20	1.668	0	68.0	21.8	108	3.92	31.5	
Surr: 2-Fluorophenol	1.6		3.326		49.5	21.4	101	0	0	
Surr: Phenol-d5	1.9		3.326		57.6	32	110	0	0	
Surr: 2,4,6-Tribromophenol	2.0		3.326		60.1	38.7	115	0	0	
Surr: Nitrobenzene-d5	1.1		1.668		68.3	26.2	120	0	0	
Surr: 2-Fluorobiphenyl	1.2		1.668		70.1	36.2	124	0	0	
Surr: 4-Terphenyl-d14	0.91		1.668		54.5	15	114	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **lcs-32703** SampType: **LCS** TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394536** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.27	0.020	0.3300	0	82.7	59.1	114			
1-Methylnaphthalene	0.26	0.020	0.3300	0	79.7	57.9	111			
2-Methylnaphthalene	0.27	0.020	0.3300	0	81.5	54.7	115			
Acenaphthylene	0.28	0.020	0.3300	0	85.7	49.1	124			
Acenaphthene	0.28	0.020	0.3300	0	84.7	45.3	118			
Fluorene	0.28	0.020	0.3300	0	85.9	46.4	120			
Phenanthrene	0.28	0.020	0.3300	0	84.4	62.4	116			
Anthracene	0.27	0.020	0.3300	0	81.4	51.8	123			
Fluoranthene	0.29	0.020	0.3300	0	87.5	50.1	122			
Pyrene	0.31	0.020	0.3300	0	94.2	48.6	129			
Benz(a)anthracene	0.30	0.020	0.3300	0	89.8	49.9	129			
Chrysene	0.29	0.020	0.3300	0	86.6	57	126			
Benzo(b)fluoranthene	0.31	0.020	0.3300	0	93.8	51	130			
Benzo(k)fluoranthene	0.31	0.020	0.3300	0	93.2	37	130			
Benzo(a)pyrene	0.31	0.020	0.3300	0	93.6	29	121			
Dibenz(a,h)anthracene	0.31	0.020	0.3300	0	94.0	53.7	124			
Benzo(g,h,i)perylene	0.30	0.020	0.3300	0	92.1	53.3	126			
Indeno(1,2,3-cd)pyrene	0.29	0.020	0.3300	0	88.5	50.5	137			
Surr: N-hexadecane	1.2		1.460		81.9	37.6	117			
Surr: Benzo(e)pyrene	0.31		0.3300		92.7	41.6	111			

Sample ID **mb-32703** SampType: **MBLK** TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBS** Batch ID: **32703** RunNo: **44186**
Prep Date: **7/10/2017** Analysis Date: **7/12/2017** SeqNo: **1394537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.020								
1-Methylnaphthalene	ND	0.020								
2-Methylnaphthalene	ND	0.020								
Acenaphthylene	ND	0.020								
Acenaphthene	ND	0.020								
Fluorene	ND	0.020								
Phenanthrene	ND	0.020								
Anthracene	ND	0.020								
Fluoranthene	ND	0.020								
Pyrene	ND	0.020								
Benz(a)anthracene	ND	0.020								
Chrysene	ND	0.020								
Benzo(b)fluoranthene	ND	0.020								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **mb-32703**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**			
Client ID: **PBS**	Batch ID: **32703**	RunNo: **44186**			
Prep Date: **7/10/2017**	Analysis Date: **7/12/2017**	SeqNo: **1394537**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	ND	0.020								
Benzo(a)pyrene	ND	0.020								
Dibenz(a,h)anthracene	ND	0.020								
Benzo(g,h,i)perylene	ND	0.020								
Indeno(1,2,3-cd)pyrene	ND	0.020								
Surr: N-hexadecane	1.3		1.460		89.9	37.6	117			
Surr: Benzo(e)pyrene	0.32		0.3300		97.4	41.6	111			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID	**MB-32826**	SampType:	**MBLK**	TestCode:	**EPA Method 7471: Mercury**
Client ID:	**PBS**	Batch ID:	**32826**	RunNo:	**44299**
Prep Date:	**7/17/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1398895** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-32826**	SampType:	**LCS**	TestCode:	**EPA Method 7471: Mercury**
Client ID:	**LCSS**	Batch ID:	**32826**	RunNo:	**44299**
Prep Date:	**7/17/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1398896** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	97.3	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB-32635** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32635** RunNo: **44017**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1387965** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Iron	ND	2.5								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID **LCS-32635** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32635** RunNo: **44017**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1387966** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	98.0	80	120			
Barium	24	0.10	25.00	0	97.1	80	120			
Cadmium	24	0.10	25.00	0	97.0	80	120			
Chromium	24	0.30	25.00	0	96.7	80	120			
Copper	25	0.30	25.00	0	99.9	80	120			
Iron	26	2.5	25.00	0	102	80	120			
Lead	24	0.25	25.00	0	97.0	80	120			
Manganese	24	0.10	25.00	0	96.3	80	120			
Nickel	24	0.50	25.00	0	95.2	80	120			
Selenium	23	2.5	25.00	0	93.5	80	120			
Silver	5.0	0.25	5.000	0	101	80	120			
Uranium	25	5.0	25.00	0	100	80	120			
Zinc	24	2.5	25.00	0	94.7	80	120			

Sample ID **1707037-004CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44017**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1388158** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	79	0.50	24.92	56.51	88.3	75	125			
Cadmium	25	0.50	24.92	0	102	75	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **1707037-004CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44017**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1388158** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	28	1.5	24.92	2.338	102	75	125			
Lead	27	1.2	24.92	1.545	100	75	125			
Silver	5.1	1.2	4.985	0	101	75	125			

Sample ID **1707037-004CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44017**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1388159** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	85	0.50	24.97	56.51	114	75	125	7.86	20	
Cadmium	25	0.50	24.97	0	102	75	125	0.155	20	
Chromium	28	1.5	24.97	2.338	102	75	125	0.0720	20	
Lead	27	1.2	24.97	1.545	102	75	125	1.54	20	
Silver	5.2	1.2	4.994	0	103	75	125	1.94	20	

Sample ID **1707037-004CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44017**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1388337** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	12	24.92	0	99.5	75	125			

Sample ID **1707037-004CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44017**
Prep Date: **7/5/2017** Analysis Date: **7/6/2017** SeqNo: **1388338** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	27	12	24.97	0	108	75	125	8.24	20	

Sample ID **1707037-004CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44191**
Prep Date: **7/5/2017** Analysis Date: **7/13/2017** SeqNo: **1394965** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	17	12	24.92	0	66.3	75	125			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **1707037-004CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44191**
Prep Date: **7/5/2017** Analysis Date: **7/13/2017** SeqNo: **1394966** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	18	12	24.97	0	70.9	75	125	6.81	20	S

Sample ID **1707037-004CPS** SampType: **PS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44191**
Prep Date: Analysis Date: **7/13/2017** SeqNo: **1394967** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	120	12	124.6	0	94.7	80	120			

Sample ID **MB-32635** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32635** RunNo: **44948**
Prep Date: **7/5/2017** Analysis Date: **8/14/2017** SeqNo: **1421578** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	3.0								
Boron	ND	2.0								
Cobalt	ND	0.30								
Molybdenum	ND	0.40								

Sample ID **LCS-32635** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32635** RunNo: **44948**
Prep Date: **7/5/2017** Analysis Date: **8/14/2017** SeqNo: **1421579** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	26	3.0	25.00	0	103	80	120			
Boron	24	2.0	25.00	0	97.4	80	120			
Cobalt	23	0.30	25.00	0	91.6	80	120			
Molybdenum	26	0.40	25.00	0	102	80	120			

Sample ID **1707037-004CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44948**
Prep Date: **7/5/2017** Analysis Date: **8/14/2017** SeqNo: **1421587** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	27	10	24.92	3.866	92.3	75	125			
Cobalt	23	1.5	24.92	1.460	87.1	75	125			
Copper	26	1.5	24.92	3.011	92.4	75	125			
Manganese	220	0.50	24.92	296.7	-294	75	125			S
Molybdenum	23	2.0	24.92	0	92.3	75	125			
Nickel	24	2.5	24.92	2.388	88.3	75	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **1707037-004CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44948**
Prep Date: **7/5/2017** Analysis Date: **8/14/2017** SeqNo: **1421587** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	25	24.92	0	39.1	75	125			S
Zinc	33	12	24.92	9.102	94.9	75	125			

Sample ID **1707037-004CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44948**
Prep Date: **7/5/2017** Analysis Date: **8/14/2017** SeqNo: **1421591** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	27	10	24.97	3.866	93.3	75	125	1.04	20	
Cobalt	24	1.5	24.97	1.460	88.9	75	125	2.05	20	
Copper	26	1.5	24.97	3.011	90.8	75	125	1.40	20	
Manganese	330	0.50	24.97	296.7	131	75	125	38.3	20	RS
Molybdenum	23	2.0	24.97	0	93.7	75	125	1.72	20	
Nickel	25	2.5	24.97	2.388	90.5	75	125	2.34	20	
Uranium	ND	25	24.97	0	32.5	75	125	0	20	S
Zinc	33	12	24.97	9.102	94.4	75	125	0.270	20	

Sample ID **1707037-004CPS** SampType: **PS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-25-40-42** Batch ID: **32635** RunNo: **44948**
Prep Date: Analysis Date: **8/14/2017** SeqNo: **1421592** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	380	0.50	124.6	296.7	67.8	80	120			S
Uranium	90	25	124.6	0	71.9	80	120			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID **MB**	SampType: **MBLK**	TestCode: **Ammonia as N**			
Client ID: **PBS**	Batch ID: **R44239**	RunNo: **44239**			
Prep Date:	Analysis Date: **7/14/2017**	SeqNo: **1396781**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	25								

Sample ID **LCS**	SampType: **LCS**	TestCode: **Ammonia as N**			
Client ID: **LCSS**	Batch ID: **R44239**	RunNo: **44239**			
Prep Date:	Analysis Date: **7/14/2017**	SeqNo: **1396782**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	500	25	500.0	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707037**
17-Aug-17

Client: Intera, Inc.
Project: Ortiz Landfill Waste Characterization

Sample ID	**MB-32686**	SampType:	**MBLK**	TestCode:	**Method 4500-N-org C: TKN**
Client ID:	**PBS**	Batch ID:	**32686**	RunNo:	**44083**
Prep Date:	**7/7/2017**	Analysis Date:	**7/7/2017**	SeqNo:	**1391002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	ND	50								

Sample ID	**LCS-32686**	SampType:	**LCS**	TestCode:	**Method 4500-N-org C: TKN**
Client ID:	**LCSS**	Batch ID:	**32686**	RunNo:	**44083**
Prep Date:	**7/7/2017**	Analysis Date:	**7/7/2017**	SeqNo:	**1391003** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	1000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: INT Work Order Number: 1707037 RcptNo: 1

Received By: Andy Freeman 6/30/2017 4:44:00 PM

Completed By: Ashley Gallegos 7/3/2017 10:46:37 AM

Reviewed By: ENM 7/3/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☑ NA ☐
   Samples were collected the same day and chilled.
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	7.2	Good	Not Present			

Chain-of-Custody Record

Client: INTERA Inc.

Joe Tracy

Mailing Address: 6000 Uptown Blvd NE

Ste 220 ABQ 87110

Phone #: 505 246 1600

email or Fax#: jtracy@intera.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☑ EDD (Type) excel

Turn-Around Time:

☑ Standard ☐ Rush

Project Name: Ortiz Landfill Waste Characterization

Project #: COSFE.C001.ORTIZ

Project Manager: Joe Tracy

Sampler: AKA.

On Ice: ☑ Yes ☐ No

Sample Temperature: 7.2 C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1707037	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Hg 7470/7471/7472	PCBs 8082	Nitrate/Nitrite 300	TKN Ammonia 350	Air Bubbles (Y or N)
6/30/17	0900	Soil	OLF-SB-24-7-9	3x4oz jar MeOH	n/a/MeOH	-001						X	X			X	X	X	X	X	X	
6/30/17	0925	Soil	OLF-SB-24-13-15	3x4oz jar MeOH	n/a/MeOH	-002						X	X			X	X	X	X	X	X	
6/30/17	1115	Soil	OLF-SB-25-21-23	3x4oz jar MeOH	n/a/MeOH	-003						X	X			X	X	X	X	X	X	
6/30/17	1400	Soil	OLF-SB-25-40-42	3x4oz jar MeOH	n/a/MeOH	-004						X	X			X	X	X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date Time	Remarks:
6/30/17	1644	[signature]	[signature]	6/30/17 1644	
Date:	Time:	Relinquished by:	Received by:	Date Time	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 22, 2017

Joseph Tracy
Intera, Inc.
6000 Uptown Boulevard, NE Suite 220
Albuquerque, NM 87110
TEL: (505) 246-1600
FAX (505) 246-2600

RE: Frank Ortiz Landfill Waste Characterization OrderNo.: 1707267

Dear Joseph Tracy:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/7/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued July 28, 2017.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1707267**
Date Reported: **8/22/2017**

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:30:00 PM
Lab ID: 1707267-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/25/2017 4:08:27 AM	32979
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/25/2017 4:08:27 AM	32979
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	77	25		mg/Kg	1	7/20/2017 2:20:00 PM	R44380
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	290	50		mg/Kg	1	7/13/2017 5:21:00 PM	32765
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/11/2017 12:55:53 PM	32737
EPA METHOD 6010B: SOIL METALS						Analyst:	**TES**
Aluminum	3700	140		mg/Kg	50	8/11/2017 6:05:42 PM	32789
Arsenic	ND	2.4		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Barium	35	0.096		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Boron	3.8	1.9		mg/Kg	1	8/11/2017 6:04:01 PM	32789
Cadmium	ND	0.096		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Chromium	2.2	0.29		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Cobalt	1.2	0.29		mg/Kg	1	8/11/2017 6:04:01 PM	32789
Copper	2.7	0.29		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Iron	4200	120		mg/Kg	50	8/11/2017 6:05:42 PM	32789
Lead	1.8	0.24		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Manganese	100	0.096		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Molybdenum	ND	0.39		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Nickel	2.3	0.48		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Selenium	ND	2.4		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Silver	ND	0.24		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Uranium	ND	4.8		mg/Kg	1	7/17/2017 10:38:10 AM	32789
Zinc	6.2	2.4		mg/Kg	1	7/17/2017 10:38:10 AM	32789
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/17/2017 10:10:00 AM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/17/2017 10:10:00 AM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/17/2017 10:10:00 AM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/17/2017 10:10:00 AM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/17/2017 10:10:00 AM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/17/2017 10:10:00 AM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/17/2017 10:10:00 AM	32733
Surr: Decachlorobiphenyl	92.4	26.3-128		%Rec	1	7/17/2017 10:10:00 AM	32733
Surr: Tetrachloro-m-xylene	89.2	20.7-151		%Rec	1	7/17/2017 10:10:00 AM	32733

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:30:00 PM
Lab ID: 1707267-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	ND	0.25		mg/Kg	1	7/13/2017 6:38:00 AM	32734
1-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 6:38:00 AM	32734
2-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Acenaphthylene	ND	0.25		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Acenaphthene	ND	0.25		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Fluorene	ND	0.030		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Phenanthrene	ND	0.015		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Anthracene	ND	0.015		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Fluoranthene	ND	0.020		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Pyrene	ND	0.025		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Benz(a)anthracene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Chrysene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Benzo(b)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Benzo(k)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Benzo(a)pyrene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Dibenz(a,h)anthracene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Benzo(g,h,i)perylene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Indeno(1,2,3-cd)pyrene	ND	0.010		mg/Kg	1	7/13/2017 6:38:00 AM	32734
Surr: Benzo(e)pyrene	82.5	32.4-163		%Rec	1	7/13/2017 6:38:00 AM	32734
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Acenaphthylene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Aniline	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Anthracene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Azobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Benzoic acid	ND	0.49		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Benzyl alcohol	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	7/17/2017 5:14:39 PM	32762
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Carbazole	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:30:00 PM
Lab ID: 1707267-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	7/17/2017 5:14:39 PM	32762
4-Chloroaniline	ND	0.49		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2-Chloronaphthalene	ND	0.24		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2-Chlorophenol	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Chrysene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Di-n-butyl phthalate	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Di-n-octyl phthalate	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Dibenzofuran	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
3,3´-Dichlorobenzidine	ND	0.24		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Diethyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2,4-Dimethylphenol	ND	0.29		mg/Kg	1	7/17/2017 5:14:39 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2,4-Dinitrophenol	ND	0.49		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Fluorene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Hexachloroethane	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Isophorone	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2-Methylphenol	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Naphthalene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
3-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:30:00 PM
Lab ID: 1707267-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
4-Nitroaniline	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Nitrobenzene	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2-Nitrophenol	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
4-Nitrophenol	ND	0.24		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Pentachlorophenol	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Phenanthrene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Phenol	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Pyrene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Pyridine	ND	0.39		mg/Kg	1	7/17/2017 5:14:39 PM	32762
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 5:14:39 PM	32762
Surr: 2-Fluorophenol	54.2	21.4-101		%Rec	1	7/17/2017 5:14:39 PM	32762
Surr: Phenol-d5	59.8	32-110		%Rec	1	7/17/2017 5:14:39 PM	32762
Surr: 2,4,6-Tribromophenol	65.4	38.7-115		%Rec	1	7/17/2017 5:14:39 PM	32762
Surr: Nitrobenzene-d5	65.4	26.2-120		%Rec	1	7/17/2017 5:14:39 PM	32762
Surr: 2-Fluorobiphenyl	71.5	36.2-124		%Rec	1	7/17/2017 5:14:39 PM	32762
Surr: 4-Terphenyl-d14	56.0	15-114		%Rec	1	7/17/2017 5:14:39 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	0.037		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Toluene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Ethylbenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Methyl tert-butyl ether (MTBE)	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2,4-Trimethylbenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,3,5-Trimethylbenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2-Dichloroethane (EDC)	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2-Dibromoethane (EDB)	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Naphthalene	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1-Methylnaphthalene	ND	0.30		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
2-Methylnaphthalene	ND	0.30		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Acetone	ND	1.1		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Bromobenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Bromodichloromethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Bromoform	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Bromomethane	ND	0.22		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
2-Butanone	ND	0.75		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Carbon disulfide	ND	0.75		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Carbon tetrachloride	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Chlorobenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:30:00 PM
Lab ID: 1707267-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chloroethane	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Chloroform	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Chloromethane	ND	0.22		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
2-Chlorotoluene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
4-Chlorotoluene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
cis-1,2-DCE	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
cis-1,3-Dichloropropene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2-Dibromo-3-chloropropane	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Dibromochloromethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Dibromomethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2-Dichlorobenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,3-Dichlorobenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,4-Dichlorobenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Dichlorodifluoromethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,1-Dichloroethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,1-Dichloroethene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2-Dichloropropane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,3-Dichloropropane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
2,2-Dichloropropane	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,1-Dichloropropene	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Hexachlorobutadiene	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
2-Hexanone	ND	0.75		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Isopropylbenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
4-Isopropyltoluene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
4-Methyl-2-pentanone	ND	0.75		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Methylene chloride	ND	0.22		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
n-Butylbenzene	ND	0.22		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
n-Propylbenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
sec-Butylbenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Styrene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
tert-Butylbenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,1,1,2-Tetrachloroethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,1,2,2-Tetrachloroethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Tetrachloroethene (PCE)	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
trans-1,2-DCE	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
trans-1,3-Dichloropropene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2,3-Trichlorobenzene	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2,4-Trichlorobenzene	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,1,1-Trichloroethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:30:00 PM
Lab ID: 1707267-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Trichloroethene (TCE)	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Trichlorofluoromethane	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
1,2,3-Trichloropropane	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Vinyl chloride	ND	0.075		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Xylenes, Total	ND	0.15		mg/Kg	1	7/11/2017 2:29:19 AM	D44109
Surr: Dibromofluoromethane	115	70-130		%Rec	1	7/11/2017 2:29:19 AM	D44109
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	7/11/2017 2:29:19 AM	D44109
Surr: Toluene-d8	102	70-130		%Rec	1	7/11/2017 2:29:19 AM	D44109
Surr: 4-Bromofluorobenzene	92.8	70-130		%Rec	1	7/11/2017 2:29:19 AM	D44109

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-126-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:40:00 PM
Lab ID: 1707267-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/25/2017 4:33:16 AM	32979
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/25/2017 4:33:16 AM	32979
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	56	25		mg/Kg	1	7/20/2017 2:20:00 PM	R44380
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	98	50		mg/Kg	1	7/13/2017 5:21:00 PM	32765
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/11/2017 1:01:03 PM	32737
EPA METHOD 6010B: SOIL METALS						Analyst:	**TES**
Aluminum	3400	150		mg/Kg	50	8/11/2017 6:08:55 PM	32789
Arsenic	ND	2.5		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Barium	46	0.10		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Boron	3.9	2.0		mg/Kg	1	8/11/2017 6:07:13 PM	32789
Cadmium	ND	0.10		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Chromium	2.2	0.30		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Cobalt	1.5	0.30		mg/Kg	1	8/11/2017 6:07:13 PM	32789
Copper	3.2	0.30		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Iron	4700	120		mg/Kg	50	8/11/2017 6:08:55 PM	32789
Lead	1.7	0.25		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Manganese	100	0.10		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Molybdenum	ND	0.40		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Nickel	2.8	0.50		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Selenium	ND	2.5		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Silver	ND	0.25		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Uranium	ND	5.0		mg/Kg	1	7/17/2017 10:44:27 AM	32789
Zinc	6.9	2.5		mg/Kg	1	7/17/2017 10:44:27 AM	32789
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/17/2017 10:43:00 AM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/17/2017 10:43:00 AM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/17/2017 10:43:00 AM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/17/2017 10:43:00 AM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/17/2017 10:43:00 AM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/17/2017 10:43:00 AM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/17/2017 10:43:00 AM	32733
Surr: Decachlorobiphenyl	83.6	26.3-128		%Rec	1	7/17/2017 10:43:00 AM	32733
Surr: Tetrachloro-m-xylene	86.0	20.7-151		%Rec	1	7/17/2017 10:43:00 AM	32733

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-126-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:40:00 PM
Lab ID: 1707267-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	ND	0.25		mg/Kg	1	7/13/2017 7:58:00 AM	32734
1-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 7:58:00 AM	32734
2-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Acenaphthylene	ND	0.25		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Acenaphthene	ND	0.25		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Fluorene	ND	0.030		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Phenanthrene	ND	0.015		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Anthracene	ND	0.015		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Fluoranthene	ND	0.020		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Pyrene	ND	0.025		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Benz(a)anthracene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Chrysene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Benzo(b)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Benzo(k)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Benzo(a)pyrene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Dibenz(a,h)anthracene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Benzo(g,h,i)perylene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Indeno(1,2,3-cd)pyrene	ND	0.010		mg/Kg	1	7/13/2017 7:58:00 AM	32734
Surr: Benzo(e)pyrene	82.0	32.4-163		%Rec	1	7/13/2017 7:58:00 AM	32734
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Acenaphthylene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Aniline	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Anthracene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Azobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Benzoic acid	ND	0.50		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Benzyl alcohol	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/17/2017 5:42:40 PM	32762
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Carbazole	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-126-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:40:00 PM
Lab ID: 1707267-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/17/2017 5:42:40 PM	32762
4-Chloroaniline	ND	0.50		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2-Chlorophenol	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Chrysene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Dibenzofuran	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Diethyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/17/2017 5:42:40 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Fluorene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Hexachloroethane	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Isophorone	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2-Methylphenol	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Naphthalene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
3-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-126-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:40:00 PM
Lab ID: 1707267-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Nitroaniline	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Nitrobenzene	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2-Nitrophenol	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
4-Nitrophenol	ND	0.25		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Pentachlorophenol	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Phenanthrene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Phenol	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Pyrene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Pyridine	ND	0.40		mg/Kg	1	7/17/2017 5:42:40 PM	32762
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 5:42:40 PM	32762
Surr: 2-Fluorophenol	49.6	21.4-101		%Rec	1	7/17/2017 5:42:40 PM	32762
Surr: Phenol-d5	54.2	32-110		%Rec	1	7/17/2017 5:42:40 PM	32762
Surr: 2,4,6-Tribromophenol	58.1	38.7-115		%Rec	1	7/17/2017 5:42:40 PM	32762
Surr: Nitrobenzene-d5	61.4	26.2-120		%Rec	1	7/17/2017 5:42:40 PM	32762
Surr: 2-Fluorobiphenyl	64.3	36.2-124		%Rec	1	7/17/2017 5:42:40 PM	32762
Surr: 4-Terphenyl-d14	50.0	15-114		%Rec	1	7/17/2017 5:42:40 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.035		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Toluene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Ethylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Methyl tert-butyl ether (MTBE)	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2,4-Trimethylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,3,5-Trimethylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2-Dichloroethane (EDC)	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2-Dibromoethane (EDB)	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Naphthalene	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1-Methylnaphthalene	ND	0.28		mg/Kg	1	7/11/2017 12:26:07 PM	32708
2-Methylnaphthalene	ND	0.28		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Acetone	ND	1.0		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Bromobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Bromodichloromethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Bromoform	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Bromomethane	ND	0.21		mg/Kg	1	7/11/2017 12:26:07 PM	32708
2-Butanone	ND	0.69		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Carbon disulfide	ND	0.69		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Carbon tetrachloride	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Chlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-126-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:40:00 PM
Lab ID: 1707267-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chloroethane	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Chloroform	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Chloromethane	ND	0.21		mg/Kg	1	7/11/2017 12:26:07 PM	32708
2-Chlorotoluene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
4-Chlorotoluene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
cis-1,2-DCE	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
cis-1,3-Dichloropropene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2-Dibromo-3-chloropropane	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Dibromochloromethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Dibromomethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2-Dichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,3-Dichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,4-Dichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Dichlorodifluoromethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,1-Dichloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,1-Dichloroethene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2-Dichloropropane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,3-Dichloropropane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
2,2-Dichloropropane	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,1-Dichloropropene	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Hexachlorobutadiene	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
2-Hexanone	ND	0.69		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Isopropylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
4-Isopropyltoluene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
4-Methyl-2-pentanone	ND	0.69		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Methylene chloride	ND	0.21		mg/Kg	1	7/11/2017 12:26:07 PM	32708
n-Butylbenzene	ND	0.21		mg/Kg	1	7/11/2017 12:26:07 PM	32708
n-Propylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
sec-Butylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Styrene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
tert-Butylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,1,1,2-Tetrachloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,1,2,2-Tetrachloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Tetrachloroethene (PCE)	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
trans-1,2-DCE	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
trans-1,3-Dichloropropene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2,3-Trichlorobenzene	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2,4-Trichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,1,1-Trichloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-126-15-17
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 1:40:00 PM
Lab ID: 1707267-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Trichloroethene (TCE)	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Trichlorofluoromethane	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
1,2,3-Trichloropropane	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Vinyl chloride	ND	0.069		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Xylenes, Total	ND	0.14		mg/Kg	1	7/11/2017 12:26:07 PM	32708
Surr: Dibromofluoromethane	115	70-130		%Rec	1	7/11/2017 12:26:07 PM	32708
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	7/11/2017 12:26:07 PM	32708
Surr: Toluene-d8	97.5	70-130		%Rec	1	7/11/2017 12:26:07 PM	32708
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	7/11/2017 12:26:07 PM	32708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-40-41
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 2:25:00 PM
Lab ID: 1707267-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/25/2017 5:22:54 AM	32979
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/25/2017 5:22:54 AM	32979
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/20/2017 2:20:00 PM	R44380
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	ND	49		mg/Kg	1	7/13/2017 5:21:00 PM	32765
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.031		mg/Kg	1	7/11/2017 1:02:47 PM	32737
EPA METHOD 6010B: SOIL METALS						Analyst:	**TES**
Aluminum	2700	150		mg/Kg	50	8/11/2017 6:11:58 PM	32789
Arsenic	ND	12		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Barium	77	0.50		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Boron	ND	10		mg/Kg	5	8/11/2017 6:10:26 PM	32789
Cadmium	ND	0.50		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Chromium	3.5	1.5		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Cobalt	1.8	1.5		mg/Kg	5	8/11/2017 6:10:26 PM	32789
Copper	3.5	1.5		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Iron	6000	120		mg/Kg	50	8/11/2017 6:11:58 PM	32789
Lead	3.3	1.2		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Manganese	260	0.50		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Molybdenum	ND	2.0		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Nickel	2.9	2.5		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Selenium	ND	12		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Silver	ND	1.2		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Uranium	ND	25		mg/Kg	5	7/17/2017 12:23:50 PM	32789
Zinc	ND	12		mg/Kg	5	7/17/2017 12:23:50 PM	32789
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/17/2017 11:16:00 AM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/17/2017 11:16:00 AM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/17/2017 11:16:00 AM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/17/2017 11:16:00 AM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/17/2017 11:16:00 AM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/17/2017 11:16:00 AM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/17/2017 11:16:00 AM	32733
Surr: Decachlorobiphenyl	84.0	26.3-128		%Rec	1	7/17/2017 11:16:00 AM	32733
Surr: Tetrachloro-m-xylene	88.8	20.7-151		%Rec	1	7/17/2017 11:16:00 AM	32733

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-40-41
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 2:25:00 PM
Lab ID: 1707267-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	ND	0.25		mg/Kg	1	7/13/2017 8:23:00 AM	32734
1-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 8:23:00 AM	32734
2-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Acenaphthylene	ND	0.25		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Acenaphthene	ND	0.25		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Fluorene	ND	0.030		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Phenanthrene	ND	0.015		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Anthracene	ND	0.015		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Fluoranthene	ND	0.020		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Pyrene	ND	0.025		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Benz(a)anthracene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Chrysene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Benzo(b)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Benzo(k)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Benzo(a)pyrene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Dibenz(a,h)anthracene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Benzo(g,h,i)perylene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Indeno(1,2,3-cd)pyrene	ND	0.010		mg/Kg	1	7/13/2017 8:23:00 AM	32734
Surr: Benzo(e)pyrene	56.6	32.4-163		%Rec	1	7/13/2017 8:23:00 AM	32734
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Acenaphthylene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Aniline	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Anthracene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Azobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Benzoic acid	ND	0.50		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Benzyl alcohol	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/17/2017 6:10:40 PM	32762
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Carbazole	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-40-41
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 2:25:00 PM
Lab ID: 1707267-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/17/2017 6:10:40 PM	32762
4-Chloroaniline	ND	0.50		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2-Chlorophenol	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Chrysene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Dibenzofuran	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Diethyl phthalate	0.22	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/17/2017 6:10:40 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Fluorene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Hexachloroethane	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Isophorone	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2-Methylphenol	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Naphthalene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
3-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-40-41
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 2:25:00 PM
Lab ID: 1707267-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Nitroaniline	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Nitrobenzene	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2-Nitrophenol	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
4-Nitrophenol	ND	0.25		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Pentachlorophenol	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Phenanthrene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Phenol	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Pyrene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Pyridine	ND	0.40		mg/Kg	1	7/17/2017 6:10:40 PM	32762
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 6:10:40 PM	32762
Surr: 2-Fluorophenol	50.9	21.4-101		%Rec	1	7/17/2017 6:10:40 PM	32762
Surr: Phenol-d5	55.1	32-110		%Rec	1	7/17/2017 6:10:40 PM	32762
Surr: 2,4,6-Tribromophenol	61.9	38.7-115		%Rec	1	7/17/2017 6:10:40 PM	32762
Surr: Nitrobenzene-d5	64.8	26.2-120		%Rec	1	7/17/2017 6:10:40 PM	32762
Surr: 2-Fluorobiphenyl	66.5	36.2-124		%Rec	1	7/17/2017 6:10:40 PM	32762
Surr: 4-Terphenyl-d14	52.2	15-114		%Rec	1	7/17/2017 6:10:40 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.034		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Toluene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Ethylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Methyl tert-butyl ether (MTBE)	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2,4-Trimethylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,3,5-Trimethylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2-Dichloroethane (EDC)	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2-Dibromoethane (EDB)	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Naphthalene	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1-Methylnaphthalene	ND	0.28		mg/Kg	1	7/11/2017 12:55:05 PM	32708
2-Methylnaphthalene	ND	0.28		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Acetone	ND	1.0		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Bromobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Bromodichloromethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Bromoform	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Bromomethane	ND	0.21		mg/Kg	1	7/11/2017 12:55:05 PM	32708
2-Butanone	ND	0.69		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Carbon disulfide	ND	0.69		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Carbon tetrachloride	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Chlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-40-41
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 2:25:00 PM
Lab ID: 1707267-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chloroethane	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Chloroform	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Chloromethane	ND	0.21		mg/Kg	1	7/11/2017 12:55:05 PM	32708
2-Chlorotoluene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
4-Chlorotoluene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
cis-1,2-DCE	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
cis-1,3-Dichloropropene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2-Dibromo-3-chloropropane	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Dibromochloromethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Dibromomethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2-Dichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,3-Dichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,4-Dichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Dichlorodifluoromethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,1-Dichloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,1-Dichloroethene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2-Dichloropropane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,3-Dichloropropane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
2,2-Dichloropropane	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,1-Dichloropropene	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Hexachlorobutadiene	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
2-Hexanone	ND	0.69		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Isopropylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
4-Isopropyltoluene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
4-Methyl-2-pentanone	ND	0.69		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Methylene chloride	ND	0.21		mg/Kg	1	7/11/2017 12:55:05 PM	32708
n-Butylbenzene	ND	0.21		mg/Kg	1	7/11/2017 12:55:05 PM	32708
n-Propylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
sec-Butylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Styrene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
tert-Butylbenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,1,1,2-Tetrachloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,1,2,2-Tetrachloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Tetrachloroethene (PCE)	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
trans-1,2-DCE	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
trans-1,3-Dichloropropene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2,3-Trichlorobenzene	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2,4-Trichlorobenzene	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,1,1-Trichloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-26-40-41
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/5/2017 2:25:00 PM
Lab ID: 1707267-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Trichloroethene (TCE)	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Trichlorofluoromethane	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
1,2,3-Trichloropropane	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Vinyl chloride	ND	0.069		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Xylenes, Total	ND	0.14		mg/Kg	1	7/11/2017 12:55:05 PM	32708
Surr: Dibromofluoromethane	110	70-130		%Rec	1	7/11/2017 12:55:05 PM	32708
Surr: 1,2-Dichloroethane-d4	114	70-130		%Rec	1	7/11/2017 12:55:05 PM	32708
Surr: Toluene-d8	98.1	70-130		%Rec	1	7/11/2017 12:55:05 PM	32708
Surr: 4-Bromofluorobenzene	90.8	70-130		%Rec	1	7/11/2017 12:55:05 PM	32708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-18-19
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:00:00 AM
Lab ID: 1707267-004 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	7/25/2017 5:47:44 AM	32979
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	7/25/2017 5:47:44 AM	32979
AMMONIA AS N						Analyst:	**CJS**
Nitrogen, Ammonia	ND	25		mg/Kg	1	7/20/2017 2:20:00 PM	R44380
METHOD 4500-N-ORG C: TKN						Analyst:	**CJS**
Nitrogen, Total Kjeldahl	70	50		mg/Kg	1	7/13/2017 5:21:00 PM	32765
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032		mg/Kg	1	7/11/2017 1:04:32 PM	32737
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	1800	59		mg/Kg	20	8/15/2017 10:08:20 AM	32789
Arsenic	ND	2.5		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Barium	22	0.099		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Boron	ND	2.0		mg/Kg	1	8/11/2017 6:13:28 PM	32789
Cadmium	ND	0.099		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Chromium	1.5	0.30		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Cobalt	0.80	0.30		mg/Kg	1	8/11/2017 6:13:28 PM	32789
Copper	1.4	0.30		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Iron	2600	49		mg/Kg	20	8/15/2017 10:08:20 AM	32789
Lead	1.0	0.25		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Manganese	100	0.099		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Molybdenum	ND	0.40		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Nickel	1.2	0.49		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Selenium	ND	2.5		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Silver	ND	0.25		mg/Kg	1	7/17/2017 10:47:40 AM	32789
Zinc	4.0	2.5		mg/Kg	1	7/17/2017 10:47:40 AM	32789
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020		mg/Kg	1	7/17/2017 11:49:00 AM	32733
Aroclor 1221	ND	0.020		mg/Kg	1	7/17/2017 11:49:00 AM	32733
Aroclor 1232	ND	0.020		mg/Kg	1	7/17/2017 11:49:00 AM	32733
Aroclor 1242	ND	0.020		mg/Kg	1	7/17/2017 11:49:00 AM	32733
Aroclor 1248	ND	0.020		mg/Kg	1	7/17/2017 11:49:00 AM	32733
Aroclor 1254	ND	0.020		mg/Kg	1	7/17/2017 11:49:00 AM	32733
Aroclor 1260	ND	0.020		mg/Kg	1	7/17/2017 11:49:00 AM	32733
Surr: Decachlorobiphenyl	90.8	26.3-128		%Rec	1	7/17/2017 11:49:00 AM	32733
Surr: Tetrachloro-m-xylene	91.2	20.7-151		%Rec	1	7/17/2017 11:49:00 AM	32733
EPA METHOD 8310: PAHS						Analyst:	**SCC**

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-18-19
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:00:00 AM
Lab ID: 1707267-004 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	ND	0.25		mg/Kg	1	7/13/2017 8:49:00 AM	32734
1-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 8:49:00 AM	32734
2-Methylnaphthalene	ND	0.25		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Acenaphthylene	ND	0.25		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Acenaphthene	ND	0.25		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Fluorene	ND	0.030		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Phenanthrene	ND	0.015		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Anthracene	ND	0.015		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Fluoranthene	ND	0.020		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Pyrene	ND	0.025		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Benz(a)anthracene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Chrysene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Benzo(b)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Benzo(k)fluoranthene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Benzo(a)pyrene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Dibenz(a,h)anthracene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Benzo(g,h,i)perylene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Indeno(1,2,3-cd)pyrene	ND	0.010		mg/Kg	1	7/13/2017 8:49:00 AM	32734
Surr: Benzo(e)pyrene	81.8	32.4-163		%Rec	1	7/13/2017 8:49:00 AM	32734
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Acenaphthylene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Aniline	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Anthracene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Azobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Benzoic acid	ND	0.50		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Benzyl alcohol	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/17/2017 6:38:38 PM	32762
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Carbazole	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-18-19
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:00:00 AM
Lab ID: 1707267-004 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/17/2017 6:38:38 PM	32762
4-Chloroaniline	ND	0.50		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2-Chlorophenol	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Chrysene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Di-n-butyl phthalate	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Dibenzofuran	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Diethyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/17/2017 6:38:38 PM	32762
4,6-Dinitro-2-methylphenol	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Fluoranthene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Fluorene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Hexachloroethane	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Isophorone	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2-Methylphenol	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Naphthalene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
3-Nitroaniline	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-18-19
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:00:00 AM
Lab ID: 1707267-004 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Nitroaniline	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Nitrobenzene	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2-Nitrophenol	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
4-Nitrophenol	ND	0.25		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Pentachlorophenol	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Phenanthrene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Phenol	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Pyrene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Pyridine	ND	0.40		mg/Kg	1	7/17/2017 6:38:38 PM	32762
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/17/2017 6:38:38 PM	32762
Surr: 2-Fluorophenol	47.1	21.4-101		%Rec	1	7/17/2017 6:38:38 PM	32762
Surr: Phenol-d5	51.8	32-110		%Rec	1	7/17/2017 6:38:38 PM	32762
Surr: 2,4,6-Tribromophenol	58.1	38.7-115		%Rec	1	7/17/2017 6:38:38 PM	32762
Surr: Nitrobenzene-d5	59.1	26.2-120		%Rec	1	7/17/2017 6:38:38 PM	32762
Surr: 2-Fluorobiphenyl	60.8	36.2-124		%Rec	1	7/17/2017 6:38:38 PM	32762
Surr: 4-Terphenyl-d14	53.6	15-114		%Rec	1	7/17/2017 6:38:38 PM	32762
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.040		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Toluene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Ethylbenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Methyl tert-butyl ether (MTBE)	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2,4-Trimethylbenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,3,5-Trimethylbenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2-Dichloroethane (EDC)	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2-Dibromoethane (EDB)	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Naphthalene	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1-Methylnaphthalene	ND	0.32		mg/Kg	1	7/11/2017 1:24:10 PM	32708
2-Methylnaphthalene	ND	0.32		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Acetone	ND	1.2		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Bromobenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Bromodichloromethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Bromoform	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Bromomethane	ND	0.24		mg/Kg	1	7/11/2017 1:24:10 PM	32708
2-Butanone	ND	0.79		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Carbon disulfide	ND	0.79		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Carbon tetrachloride	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Chlorobenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-18-19
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:00:00 AM
Lab ID: 1707267-004 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chloroethane	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Chloroform	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Chloromethane	ND	0.24		mg/Kg	1	7/11/2017 1:24:10 PM	32708
2-Chlorotoluene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
4-Chlorotoluene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
cis-1,2-DCE	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
cis-1,3-Dichloropropene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2-Dibromo-3-chloropropane	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Dibromochloromethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Dibromomethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2-Dichlorobenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,3-Dichlorobenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,4-Dichlorobenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Dichlorodifluoromethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,1-Dichloroethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,1-Dichloroethene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2-Dichloropropane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,3-Dichloropropane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
2,2-Dichloropropane	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,1-Dichloropropene	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Hexachlorobutadiene	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
2-Hexanone	ND	0.79		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Isopropylbenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
4-Isopropyltoluene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
4-Methyl-2-pentanone	ND	0.79		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Methylene chloride	ND	0.24		mg/Kg	1	7/11/2017 1:24:10 PM	32708
n-Butylbenzene	ND	0.24		mg/Kg	1	7/11/2017 1:24:10 PM	32708
n-Propylbenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
sec-Butylbenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Styrene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
tert-Butylbenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,1,1,2-Tetrachloroethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,1,2,2-Tetrachloroethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Tetrachloroethene (PCE)	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
trans-1,2-DCE	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
trans-1,3-Dichloropropene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2,3-Trichlorobenzene	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2,4-Trichlorobenzene	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,1,1-Trichloroethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-18-19
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:00:00 AM
Lab ID: 1707267-004 **Matrix:** MEOH (SOIL) **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Trichloroethene (TCE)	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Trichlorofluoromethane	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
1,2,3-Trichloropropane	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Vinyl chloride	ND	0.079		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Xylenes, Total	ND	0.16		mg/Kg	1	7/11/2017 1:24:10 PM	32708
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/11/2017 1:24:10 PM	32708
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	7/11/2017 1:24:10 PM	32708
Surr: Toluene-d8	95.8	70-130		%Rec	1	7/11/2017 1:24:10 PM	32708
Surr: 4-Bromofluorobenzene	91.4	70-130		%Rec	1	7/11/2017 1:24:10 PM	32708

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-FB
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:15:00 AM
Lab ID: 1707267-005 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: METALS						Analyst:	**ELS**
Uranium	ND	0.00050		mg/L	1	8/11/2017 9:12:49 AM	32974
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrate+Nitrite as N	ND	1.0		mg/L	5	7/19/2017 4:33:37 PM	R44368
SM 4500 NH3: AMMONIA						Analyst:	**CJS**
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/18/2017 2:53:00 PM	R44311
SM 4500 NORG C: TKN						Analyst:	**CJS**
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	7/20/2017 3:32:00 PM	32888
EPA METHOD 200.7: METALS						Analyst:	**ELS**
Aluminum	ND	0.020		mg/L	1	7/11/2017 9:52:46 AM	32718
Arsenic	ND	0.020		mg/L	1	7/25/2017 4:30:51 PM	32974
Barium	ND	0.0020		mg/L	1	7/11/2017 9:52:46 AM	32718
Boron	0.060	0.040		mg/L	1	7/11/2017 9:52:46 AM	32718
Cadmium	ND	0.0020		mg/L	1	7/11/2017 9:52:46 AM	32718
Chromium	ND	0.0060		mg/L	1	7/11/2017 9:52:46 AM	32718
Cobalt	ND	0.0060		mg/L	1	7/11/2017 9:52:46 AM	32718
Copper	ND	0.0060		mg/L	1	7/11/2017 9:52:46 AM	32718
Iron	ND	0.020		mg/L	1	7/11/2017 9:52:46 AM	32718
Lead	ND	0.0050		mg/L	1	7/11/2017 9:52:46 AM	32718
Manganese	ND	0.0020		mg/L	1	7/11/2017 9:52:46 AM	32718
Molybdenum	ND	0.0080		mg/L	1	7/11/2017 9:52:46 AM	32718
Nickel	ND	0.010		mg/L	1	7/11/2017 9:52:46 AM	32718
Selenium	ND	0.050		mg/L	1	7/11/2017 9:52:46 AM	32718
Silver	ND	0.0050		mg/L	1	7/11/2017 9:52:46 AM	32718
Zinc	ND	0.010		mg/L	1	7/11/2017 9:52:46 AM	32718
EPA METHOD 245.1: MERCURY						Analyst:	**MED**
Mercury	ND	0.00020		mg/L	1	7/18/2017 2:17:48 PM	32848
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	1.0		µg/L	1	7/17/2017 8:31:00 AM	32749
Aroclor 1221	ND	1.0		µg/L	1	7/17/2017 8:31:00 AM	32749
Aroclor 1232	ND	1.0		µg/L	1	7/17/2017 8:31:00 AM	32749
Aroclor 1242	ND	1.0		µg/L	1	7/17/2017 8:31:00 AM	32749
Aroclor 1248	ND	1.0		µg/L	1	7/17/2017 8:31:00 AM	32749
Aroclor 1254	ND	1.0		µg/L	1	7/17/2017 8:31:00 AM	32749
Aroclor 1260	ND	1.0		µg/L	1	7/17/2017 8:31:00 AM	32749
Surr: Decachlorobiphenyl	116	50.4-123		%Rec	1	7/17/2017 8:31:00 AM	32749
Surr: Tetrachloro-m-xylene	104	41.2-147		%Rec	1	7/17/2017 8:31:00 AM	32749

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-FB
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:15:00 AM
Lab ID: 1707267-005 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	ND	2.0		µg/L	1	7/18/2017 6:22:00 AM	32750
1-Methylnaphthalene	ND	2.0		µg/L	1	7/18/2017 6:22:00 AM	32750
2-Methylnaphthalene	ND	2.0		µg/L	1	7/18/2017 6:22:00 AM	32750
Acenaphthylene	ND	2.5		µg/L	1	7/18/2017 6:22:00 AM	32750
Acenaphthene	ND	2.0		µg/L	1	7/18/2017 6:22:00 AM	32750
Fluorene	ND	0.80		µg/L	1	7/18/2017 6:22:00 AM	32750
Phenanthrene	ND	0.60		µg/L	1	7/18/2017 6:22:00 AM	32750
Anthracene	ND	0.60		µg/L	1	7/18/2017 6:22:00 AM	32750
Fluoranthene	ND	0.30		µg/L	1	7/18/2017 6:22:00 AM	32750
Pyrene	ND	0.30		µg/L	1	7/18/2017 6:22:00 AM	32750
Benz(a)anthracene	ND	0.070		µg/L	1	7/18/2017 6:22:00 AM	32750
Chrysene	ND	0.20		µg/L	1	7/18/2017 6:22:00 AM	32750
Benzo(b)fluoranthene	ND	0.10		µg/L	1	7/18/2017 6:22:00 AM	32750
Benzo(k)fluoranthene	ND	0.070		µg/L	1	7/18/2017 6:22:00 AM	32750
Benzo(a)pyrene	ND	0.070		µg/L	1	7/18/2017 6:22:00 AM	32750
Dibenz(a,h)anthracene	ND	0.12		µg/L	1	7/18/2017 6:22:00 AM	32750
Benzo(g,h,i)perylene	ND	0.12		µg/L	1	7/18/2017 6:22:00 AM	32750
Indeno(1,2,3-cd)pyrene	ND	0.25		µg/L	1	7/18/2017 6:22:00 AM	32750
Surr: Benzo(e)pyrene	85.0	49.1-127		%Rec	1	7/18/2017 6:22:00 AM	32750
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Acenaphthylene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Aniline	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Anthracene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Azobenzene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Benz(a)anthracene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Benzo(a)pyrene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Benzo(b)fluoranthene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Benzo(k)fluoranthene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Benzoic acid	ND	20		µg/L	1	7/11/2017 6:20:35 PM	32735
Benzyl alcohol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Butyl benzyl phthalate	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Carbazole	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-FB
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:15:00 AM
Lab ID: 1707267-005 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
4-Chloroaniline	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2-Chloronaphthalene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2-Chlorophenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Chrysene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Di-n-butyl phthalate	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Di-n-octyl phthalate	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Dibenzofuran	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
1,2-Dichlorobenzene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
1,3-Dichlorobenzene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
1,4-Dichlorobenzene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
3,3´-Dichlorobenzidine	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Diethyl phthalate	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Dimethyl phthalate	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2,4-Dichlorophenol	ND	20		µg/L	1	7/11/2017 6:20:35 PM	32735
2,4-Dimethylphenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/11/2017 6:20:35 PM	32735
2,4-Dinitrophenol	ND	20		µg/L	1	7/11/2017 6:20:35 PM	32735
2,4-Dinitrotoluene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2,6-Dinitrotoluene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Fluoranthene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Fluorene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Hexachlorobenzene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Hexachlorobutadiene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Hexachloroethane	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Isophorone	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
1-Methylnaphthalene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2-Methylnaphthalene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2-Methylphenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
3+4-Methylphenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
N-Nitrosodimethylamine	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Naphthalene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2-Nitroaniline	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-FB
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:15:00 AM
Lab ID: 1707267-005 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
4-Nitroaniline	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Nitrobenzene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2-Nitrophenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
4-Nitrophenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Pentachlorophenol	ND	20		µg/L	1	7/11/2017 6:20:35 PM	32735
Phenanthrene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Phenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Pyrene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Pyridine	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/11/2017 6:20:35 PM	32735
Surr: 2-Fluorophenol	48.9	15-98.1		%Rec	1	7/11/2017 6:20:35 PM	32735
Surr: Phenol-d5	38.6	15-80.7		%Rec	1	7/11/2017 6:20:35 PM	32735
Surr: 2,4,6-Tribromophenol	66.0	15-112		%Rec	1	7/11/2017 6:20:35 PM	32735
Surr: Nitrobenzene-d5	85.1	27.2-90.7		%Rec	1	7/11/2017 6:20:35 PM	32735
Surr: 2-Fluorobiphenyl	81.3	23.3-85.6		%Rec	1	7/11/2017 6:20:35 PM	32735
Surr: 4-Terphenyl-d14	58.2	27.6-107		%Rec	1	7/11/2017 6:20:35 PM	32735
EPA METHOD 8260B: VOLATILES						Analyst:	**RAA**
Benzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Toluene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Ethylbenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Naphthalene	ND	2.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Acetone	ND	10		µg/L	1	7/10/2017 7:36:00 PM	R44107
Bromobenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Bromodichloromethane	1.1	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Bromoform	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Bromomethane	ND	3.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
2-Butanone	ND	10		µg/L	1	7/10/2017 7:36:00 PM	R44107
Carbon disulfide	ND	10		µg/L	1	7/10/2017 7:36:00 PM	R44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-FB
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:15:00 AM
Lab ID: 1707267-005 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
Chlorobenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Chloroethane	ND	2.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Chloroform	2.1	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Chloromethane	ND	3.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Dibromochloromethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Dibromomethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,1-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
2-Hexanone	ND	10		µg/L	1	7/10/2017 7:36:00 PM	R44107
Isopropylbenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/10/2017 7:36:00 PM	R44107
Methylene Chloride	ND	3.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
n-Butylbenzene	ND	3.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
n-Propylbenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Styrene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-FB
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 11:15:00 AM
Lab ID: 1707267-005 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Vinyl chloride	ND	1.0		µg/L	1	7/10/2017 7:36:00 PM	R44107
Xylenes, Total	ND	1.5		µg/L	1	7/10/2017 7:36:00 PM	R44107
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	7/10/2017 7:36:00 PM	R44107
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	7/10/2017 7:36:00 PM	R44107
Surr: Dibromofluoromethane	119	70-130		%Rec	1	7/10/2017 7:36:00 PM	R44107
Surr: Toluene-d8	103	70-130		%Rec	1	7/10/2017 7:36:00 PM	R44107

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-ER
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 1:20:00 PM
Lab ID: 1707267-006 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: METALS						Analyst:	**ELS**
Uranium	ND	0.00050		mg/L	1	8/11/2017 9:15:49 AM	32974
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrate+Nitrite as N	ND	1.0		mg/L	5	7/19/2017 4:46:02 PM	R44368
SM 4500 NH3: AMMONIA						Analyst:	**CJS**
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/18/2017 2:53:00 PM	R44311
SM 4500 NORG C: TKN						Analyst:	**CJS**
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	7/20/2017 3:32:00 PM	32888
EPA METHOD 200.7: METALS						Analyst:	**pmf**
Aluminum	0.025	0.020		mg/L	1	7/20/2017 6:02:15 PM	32720
Arsenic	ND	0.020		mg/L	1	7/25/2017 4:32:47 PM	32974
Barium	ND	0.0020		mg/L	1	7/11/2017 11:27:43 AM	32720
Boron	0.061	0.040		mg/L	1	7/11/2017 11:27:43 AM	32720
Cadmium	ND	0.0020		mg/L	1	7/11/2017 11:27:43 AM	32720
Chromium	ND	0.0060		mg/L	1	7/11/2017 11:27:43 AM	32720
Cobalt	ND	0.0060		mg/L	1	7/11/2017 11:27:43 AM	32720
Copper	ND	0.0060		mg/L	1	7/11/2017 11:27:43 AM	32720
Iron	0.13	0.020		mg/L	1	7/11/2017 11:27:43 AM	32720
Lead	ND	0.0050		mg/L	1	7/20/2017 6:02:15 PM	32720
Manganese	ND	0.0020		mg/L	1	7/11/2017 11:27:43 AM	32720
Molybdenum	ND	0.0080		mg/L	1	7/11/2017 11:27:43 AM	32720
Nickel	ND	0.010		mg/L	1	7/11/2017 11:27:43 AM	32720
Selenium	ND	0.050		mg/L	1	7/11/2017 11:27:43 AM	32720
Silver	ND	0.0050		mg/L	1	7/11/2017 11:27:43 AM	32720
Zinc	ND	0.010		mg/L	1	7/11/2017 11:27:43 AM	32720
EPA METHOD 245.1: MERCURY						Analyst:	**MED**
Mercury	ND	0.00020		mg/L	1	7/18/2017 2:19:48 PM	32848
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	1.0		µg/L	1	7/17/2017 9:04:00 AM	32749
Aroclor 1221	ND	1.0		µg/L	1	7/17/2017 9:04:00 AM	32749
Aroclor 1232	ND	1.0		µg/L	1	7/17/2017 9:04:00 AM	32749
Aroclor 1242	ND	1.0		µg/L	1	7/17/2017 9:04:00 AM	32749
Aroclor 1248	ND	1.0		µg/L	1	7/17/2017 9:04:00 AM	32749
Aroclor 1254	ND	1.0		µg/L	1	7/17/2017 9:04:00 AM	32749
Aroclor 1260	ND	1.0		µg/L	1	7/17/2017 9:04:00 AM	32749
Surr: Decachlorobiphenyl	95.2	50.4-123		%Rec	1	7/17/2017 9:04:00 AM	32749
Surr: Tetrachloro-m-xylene	86.8	41.2-147		%Rec	1	7/17/2017 9:04:00 AM	32749

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-ER
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 1:20:00 PM
Lab ID: 1707267-006 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	ND	2.0		µg/L	1	7/18/2017 6:48:00 AM	32750
1-Methylnaphthalene	ND	2.0		µg/L	1	7/18/2017 6:48:00 AM	32750
2-Methylnaphthalene	ND	2.0		µg/L	1	7/18/2017 6:48:00 AM	32750
Acenaphthylene	ND	2.5		µg/L	1	7/18/2017 6:48:00 AM	32750
Acenaphthene	ND	2.0		µg/L	1	7/18/2017 6:48:00 AM	32750
Fluorene	ND	0.80		µg/L	1	7/18/2017 6:48:00 AM	32750
Phenanthrene	ND	0.60		µg/L	1	7/18/2017 6:48:00 AM	32750
Anthracene	ND	0.60		µg/L	1	7/18/2017 6:48:00 AM	32750
Fluoranthene	ND	0.30		µg/L	1	7/18/2017 6:48:00 AM	32750
Pyrene	ND	0.30		µg/L	1	7/18/2017 6:48:00 AM	32750
Benz(a)anthracene	ND	0.070		µg/L	1	7/18/2017 6:48:00 AM	32750
Chrysene	ND	0.20		µg/L	1	7/18/2017 6:48:00 AM	32750
Benzo(b)fluoranthene	ND	0.10		µg/L	1	7/18/2017 6:48:00 AM	32750
Benzo(k)fluoranthene	ND	0.070		µg/L	1	7/18/2017 6:48:00 AM	32750
Benzo(a)pyrene	ND	0.070		µg/L	1	7/18/2017 6:48:00 AM	32750
Dibenz(a,h)anthracene	ND	0.12		µg/L	1	7/18/2017 6:48:00 AM	32750
Benzo(g,h,i)perylene	ND	0.12		µg/L	1	7/18/2017 6:48:00 AM	32750
Indeno(1,2,3-cd)pyrene	ND	0.25		µg/L	1	7/18/2017 6:48:00 AM	32750
Surr: Benzo(e)pyrene	86.3	49.1-127		%Rec	1	7/18/2017 6:48:00 AM	32750
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Acenaphthylene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Aniline	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Anthracene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Azobenzene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Benz(a)anthracene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Benzo(a)pyrene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Benzo(b)fluoranthene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Benzo(k)fluoranthene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Benzoic acid	ND	20		µg/L	1	7/11/2017 6:48:57 PM	32735
Benzyl alcohol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Butyl benzyl phthalate	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Carbazole	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-ER
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 1:20:00 PM
Lab ID: 1707267-006 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
4-Chloroaniline	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2-Chloronaphthalene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2-Chlorophenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Chrysene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Di-n-butyl phthalate	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Di-n-octyl phthalate	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Dibenzofuran	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
1,2-Dichlorobenzene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
1,3-Dichlorobenzene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
1,4-Dichlorobenzene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
3,3´-Dichlorobenzidine	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Diethyl phthalate	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Dimethyl phthalate	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2,4-Dichlorophenol	ND	20		µg/L	1	7/11/2017 6:48:57 PM	32735
2,4-Dimethylphenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/11/2017 6:48:57 PM	32735
2,4-Dinitrophenol	ND	20		µg/L	1	7/11/2017 6:48:57 PM	32735
2,4-Dinitrotoluene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2,6-Dinitrotoluene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Fluoranthene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Fluorene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Hexachlorobenzene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Hexachlorobutadiene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Hexachloroethane	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Isophorone	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
1-Methylnaphthalene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2-Methylnaphthalene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2-Methylphenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
3+4-Methylphenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
N-Nitrosodimethylamine	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Naphthalene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2-Nitroaniline	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-ER
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 1:20:00 PM
Lab ID: 1707267-006 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
3-Nitroaniline	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
4-Nitroaniline	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Nitrobenzene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2-Nitrophenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
4-Nitrophenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Pentachlorophenol	ND	20		µg/L	1	7/11/2017 6:48:57 PM	32735
Phenanthrene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Phenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Pyrene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Pyridine	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/11/2017 6:48:57 PM	32735
Surr: 2-Fluorophenol	15.1	15-98.1		%Rec	1	7/11/2017 6:48:57 PM	32735
Surr: Phenol-d5	15.2	15-80.7		%Rec	1	7/11/2017 6:48:57 PM	32735
Surr: 2,4,6-Tribromophenol	23.1	15-112		%Rec	1	7/11/2017 6:48:57 PM	32735
Surr: Nitrobenzene-d5	46.7	27.2-90.7		%Rec	1	7/11/2017 6:48:57 PM	32735
Surr: 2-Fluorobiphenyl	45.6	23.3-85.6		%Rec	1	7/11/2017 6:48:57 PM	32735
Surr: 4-Terphenyl-d14	37.7	27.6-107		%Rec	1	7/11/2017 6:48:57 PM	32735
EPA METHOD 8260B: VOLATILES						Analyst:	**RAA**
Benzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Toluene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Ethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Naphthalene	ND	2.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Acetone	12	10		µg/L	1	7/10/2017 8:00:00 PM	R44107
Bromobenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Bromodichloromethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Bromoform	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Bromomethane	ND	3.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
2-Butanone	ND	10		µg/L	1	7/10/2017 8:00:00 PM	R44107
Carbon disulfide	ND	10		µg/L	1	7/10/2017 8:00:00 PM	R44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-ER
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 1:20:00 PM
Lab ID: 1707267-006 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
Chlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Chloroethane	ND	2.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Chloroform	1.5	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Chloromethane	ND	3.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Dibromochloromethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Dibromomethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,1-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
2-Hexanone	ND	10		µg/L	1	7/10/2017 8:00:00 PM	R44107
Isopropylbenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/10/2017 8:00:00 PM	R44107
Methylene Chloride	ND	3.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
n-Butylbenzene	ND	3.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
n-Propylbenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Styrene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-ER
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 1:20:00 PM
Lab ID: 1707267-006 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Vinyl chloride	ND	1.0		µg/L	1	7/10/2017 8:00:00 PM	R44107
Xylenes, Total	ND	1.5		µg/L	1	7/10/2017 8:00:00 PM	R44107
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	7/10/2017 8:00:00 PM	R44107
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	7/10/2017 8:00:00 PM	R44107
Surr: Dibromofluoromethane	117	70-130		%Rec	1	7/10/2017 8:00:00 PM	R44107
Surr: Toluene-d8	102	70-130		%Rec	1	7/10/2017 8:00:00 PM	R44107

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** TRIP BLANK
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017
Lab ID: 1707267-007 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Toluene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Ethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Naphthalene	ND	2.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Acetone	ND	10		µg/L	1	7/10/2017 8:24:00 PM	R44107
Bromobenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Bromodichloromethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Bromoform	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Bromomethane	ND	3.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
2-Butanone	ND	10		µg/L	1	7/10/2017 8:24:00 PM	R44107
Carbon disulfide	ND	10		µg/L	1	7/10/2017 8:24:00 PM	R44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Chlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Chloroethane	ND	2.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Chloroform	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Chloromethane	ND	3.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Dibromochloromethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Dibromomethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/10/2017 8:24:00 PM	R44107

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** TRIP BLANK
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017
Lab ID: 1707267-007 **Matrix:** AQUEOUS **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**	
1,1-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
2-Hexanone	ND	10		µg/L	1	7/10/2017 8:24:00 PM	R44107
Isopropylbenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/10/2017 8:24:00 PM	R44107
Methylene Chloride	ND	3.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
n-Butylbenzene	ND	3.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
n-Propylbenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Styrene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Vinyl chloride	ND	1.0		µg/L	1	7/10/2017 8:24:00 PM	R44107
Xylenes, Total	ND	1.5		µg/L	1	7/10/2017 8:24:00 PM	R44107
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	7/10/2017 8:24:00 PM	R44107
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	7/10/2017 8:24:00 PM	R44107
Surr: Dibromofluoromethane	116	70-130		%Rec	1	7/10/2017 8:24:00 PM	R44107
Surr: Toluene-d8	101	70-130		%Rec	1	7/10/2017 8:24:00 PM	R44107

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-35-37
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 12:00:00 PM
Lab ID: 1707267-008 **Matrix:** SOIL **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Nitrogen, Nitrite (As N)	ND	0.30	H	mg/Kg	1	8/18/2017 12:33:00 AM	33438
Nitrogen, Nitrate (As N)	ND	0.30	H	mg/Kg	1	8/18/2017 12:33:00 AM	33438
AMMONIA AS N						Analyst:	**smb**
Nitrogen, Ammonia	ND	25	H	mg/Kg	1	8/8/2017 1:49:00 PM	R44793
METHOD 4500-N-ORG C: TKN						Analyst:	**smb**
Nitrogen, Total Kjeldahl	ND	50	H	mg/Kg	1	8/16/2017 2:39:00 PM	33397
EPA METHOD 7471: MERCURY						Analyst:	**ELS**
Mercury	ND	0.032	H	mg/Kg	1	8/15/2017 12:55:35 PM	33350
EPA METHOD 6010B: SOIL METALS						Analyst:	**MED**
Aluminum	3300	150		mg/Kg	50	8/17/2017 10:15:10 AM	33349
Arsenic	3.9	2.4		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Barium	34	0.098		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Boron	2.7	2.0		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Cadmium	ND	0.098		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Chromium	2.5	0.29		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Cobalt	1.4	0.29		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Copper	3.1	0.29		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Iron	4500	120		mg/Kg	50	8/17/2017 10:15:10 AM	33349
Lead	1.2	0.24		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Manganese	110	0.098		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Molybdenum	ND	0.39		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Nickel	2.8	0.49		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Selenium	ND	2.4		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Silver	ND	0.24		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Uranium	ND	4.9		mg/Kg	1	8/17/2017 10:04:48 AM	33349
Zinc	9.2	2.4		mg/Kg	1	8/17/2017 10:04:48 AM	33349
EPA METHOD 8082: PCB'S						Analyst:	**SCC**
Aroclor 1016	ND	0.020	H	mg/Kg	1	8/15/2017 8:44:00 AM	33232
Aroclor 1221	ND	0.020	H	mg/Kg	1	8/15/2017 8:44:00 AM	33232
Aroclor 1232	ND	0.020	H	mg/Kg	1	8/15/2017 8:44:00 AM	33232
Aroclor 1242	ND	0.020	H	mg/Kg	1	8/15/2017 8:44:00 AM	33232
Aroclor 1248	ND	0.020	H	mg/Kg	1	8/15/2017 8:44:00 AM	33232
Aroclor 1254	ND	0.020	H	mg/Kg	1	8/15/2017 8:44:00 AM	33232
Aroclor 1260	ND	0.020	H	mg/Kg	1	8/15/2017 8:44:00 AM	33232
Surr: Decachlorobiphenyl	56.8	26.3-128	H	%Rec	1	8/15/2017 8:44:00 AM	33232
Surr: Tetrachloro-m-xylene	66.8	20.7-151	H	%Rec	1	8/15/2017 8:44:00 AM	33232

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-35-37
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 12:00:00 PM
Lab ID: 1707267-008 **Matrix:** SOIL **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	ND	0.25	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
1-Methylnaphthalene	ND	0.25	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
2-Methylnaphthalene	ND	0.25	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Acenaphthylene	ND	0.25	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Acenaphthene	ND	0.25	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Fluorene	ND	0.030	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Phenanthrene	ND	0.015	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Anthracene	ND	0.015	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Fluoranthene	ND	0.020	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Pyrene	ND	0.025	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Benz(a)anthracene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Chrysene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Benzo(b)fluoranthene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Benzo(k)fluoranthene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Benzo(a)pyrene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Dibenz(a,h)anthracene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Benzo(g,h,i)perylene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Indeno(1,2,3-cd)pyrene	ND	0.010	H	mg/Kg	1	8/15/2017 10:54:00 AM	33260
Surr: Benzo(e)pyrene	79.8	33.2-125	H	%Rec	1	8/15/2017 10:54:00 AM	33260
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Acenaphthylene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Aniline	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Anthracene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Azobenzene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Benz(a)anthracene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Benzo(a)pyrene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Benzo(b)fluoranthene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Benzo(g,h,i)perylene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Benzo(k)fluoranthene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Benzoic acid	ND	0.50	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Benzyl alcohol	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Bis(2-chloroethoxy)methane	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Bis(2-chloroethyl)ether	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Bis(2-chloroisopropyl)ether	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Bis(2-ethylhexyl)phthalate	ND	0.50	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
4-Bromophenyl phenyl ether	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Butyl benzyl phthalate	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Carbazole	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-35-37
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 12:00:00 PM
Lab ID: 1707267-008 **Matrix:** SOIL **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Chloro-3-methylphenol	ND	0.50	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
4-Chloroaniline	ND	0.50	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2-Chloronaphthalene	ND	0.25	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2-Chlorophenol	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
4-Chlorophenyl phenyl ether	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Chrysene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Di-n-butyl phthalate	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Di-n-octyl phthalate	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Dibenz(a,h)anthracene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Dibenzofuran	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
1,2-Dichlorobenzene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
1,3-Dichlorobenzene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
1,4-Dichlorobenzene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
3,3´-Dichlorobenzidine	ND	0.25	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Diethyl phthalate	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Dimethyl phthalate	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2,4-Dichlorophenol	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2,4-Dimethylphenol	ND	0.30	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
4,6-Dinitro-2-methylphenol	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2,4-Dinitrophenol	ND	0.50	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2,4-Dinitrotoluene	ND	0.50	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2,6-Dinitrotoluene	ND	0.50	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Fluoranthene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Fluorene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Hexachlorobenzene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Hexachlorobutadiene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Hexachlorocyclopentadiene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Hexachloroethane	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Indeno(1,2,3-cd)pyrene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Isophorone	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
1-Methylnaphthalene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2-Methylnaphthalene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2-Methylphenol	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
3+4-Methylphenol	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
N-Nitrosodi-n-propylamine	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
N-Nitrosodiphenylamine	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Naphthalene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2-Nitroaniline	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
3-Nitroaniline	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-35-37
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 12:00:00 PM
Lab ID: 1707267-008 **Matrix:** SOIL **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
4-Nitroaniline	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Nitrobenzene	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2-Nitrophenol	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
4-Nitrophenol	ND	0.25	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Pentachlorophenol	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Phenanthrene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Phenol	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Pyrene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Pyridine	ND	0.40	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
1,2,4-Trichlorobenzene	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2,4,5-Trichlorophenol	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
2,4,6-Trichlorophenol	ND	0.20	H	mg/Kg	1	8/16/2017 8:31:33 PM	33200
Surr: 2-Fluorophenol	30.0	23.3-81	H	%Rec	1	8/16/2017 8:31:33 PM	33200
Surr: Phenol-d5	35.9	19.4-93.6	H	%Rec	1	8/16/2017 8:31:33 PM	33200
Surr: 2,4,6-Tribromophenol	42.7	31.1-88.7	H	%Rec	1	8/16/2017 8:31:33 PM	33200
Surr: Nitrobenzene-d5	41.4	23.7-106	H	%Rec	1	8/16/2017 8:31:33 PM	33200
Surr: 2-Fluorobiphenyl	42.5	26.3-107	H	%Rec	1	8/16/2017 8:31:33 PM	33200
Surr: 4-Terphenyl-d14	36.4	32.5-80.1	H	%Rec	1	8/16/2017 8:31:33 PM	33200
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.034	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Toluene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Ethylbenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Methyl tert-butyl ether (MTBE)	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2,4-Trimethylbenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,3,5-Trimethylbenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2-Dichloroethane (EDC)	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2-Dibromoethane (EDB)	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Naphthalene	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1-Methylnaphthalene	ND	0.28	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
2-Methylnaphthalene	ND	0.28	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Acetone	ND	1.0	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Bromobenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Bromodichloromethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Bromoform	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Bromomethane	ND	0.21	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
2-Butanone	ND	0.69	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Carbon disulfide	ND	0.69	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Carbon tetrachloride	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Chlorobenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** OLF-SB-27-35-37
Project: Frank Ortiz Landfill Waste Characterizati **Collection Date:** 7/6/2017 12:00:00 PM
Lab ID: 1707267-008 **Matrix:** SOIL **Received Date:** 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Chloroethane	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Chloroform	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Chloromethane	ND	0.21	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
2-Chlorotoluene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
4-Chlorotoluene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
cis-1,2-DCE	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
cis-1,3-Dichloropropene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2-Dibromo-3-chloropropane	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Dibromochloromethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Dibromomethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2-Dichlorobenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,3-Dichlorobenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,4-Dichlorobenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Dichlorodifluoromethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,1-Dichloroethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,1-Dichloroethene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2-Dichloropropane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,3-Dichloropropane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
2,2-Dichloropropane	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,1-Dichloropropene	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Hexachlorobutadiene	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
2-Hexanone	ND	0.69	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Isopropylbenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
4-Isopropyltoluene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
4-Methyl-2-pentanone	ND	0.69	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Methylene chloride	ND	0.21	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
n-Butylbenzene	ND	0.21	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
n-Propylbenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
sec-Butylbenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Styrene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
tert-Butylbenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,1,1,2-Tetrachloroethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,1,2,2-Tetrachloroethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Tetrachloroethene (PCE)	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
trans-1,2-DCE	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
trans-1,3-Dichloropropene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2,3-Trichlorobenzene	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2,4-Trichlorobenzene	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,1,1-Trichloroethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc.
Client Sample ID: OLF-SB-27-35-37
Project: Frank Ortiz Landfill Waste Characterizati
Collection Date: 7/6/2017 12:00:00 PM
Lab ID: 1707267-008
Matrix: SOIL
Received Date: 7/7/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Trichloroethene (TCE)	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Trichlorofluoromethane	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
1,2,3-Trichloropropane	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Vinyl chloride	ND	0.069	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Xylenes, Total	ND	0.14	H	mg/Kg	1	8/11/2017 7:41:18 PM	33294
Surr: Dibromofluoromethane	106	70-130	H	%Rec	1	8/11/2017 7:41:18 PM	33294
Surr: 1,2-Dichloroethane-d4	107	70-130	H	%Rec	1	8/11/2017 7:41:18 PM	33294
Surr: Toluene-d8	105	70-130	H	%Rec	1	8/11/2017 7:41:18 PM	33294
Surr: 4-Bromofluorobenzene	90.0	70-130	H	%Rec	1	8/11/2017 7:41:18 PM	33294

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32718** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **32718** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1391686** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LLLCS-32718** SampType: **LCSLL** TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC** Batch ID: **32718** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1391687** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020	0.01000	0	103	50	150			
Barium	0.0023	0.0020	0.002000	0	117	50	150			
Boron	0.041	0.040	0.04000	0	102	50	150			
Cadmium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0069	0.0060	0.006000	0	115	50	150			
Cobalt	0.0066	0.0060	0.006000	0	110	50	150			
Copper	0.0061	0.0060	0.006000	0	102	50	150			
Iron	0.025	0.020	0.02000	0	124	50	150			
Lead	ND	0.0050	0.005000	0	87.2	50	150			
Manganese	ND	0.0020	0.002000	0	96.5	50	150			
Molybdenum	0.0083	0.0080	0.008000	0	104	50	150			
Nickel	ND	0.010	0.005000	0	103	50	150			
Selenium	0.053	0.050	0.05000	0	106	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	ND	0.010	0.005000	0	121	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **LCS-32718** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **32718** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1391688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.57	0.020	0.5000	0	115	85	115			
Barium	0.50	0.0020	0.5000	0	99.9	85	115			
Boron	0.51	0.040	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Cobalt	0.48	0.0060	0.5000	0	95.9	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Lead	0.49	0.0050	0.5000	0	98.6	85	115			
Manganese	0.49	0.0020	0.5000	0	97.3	85	115			
Molybdenum	0.51	0.0080	0.5000	0	102	85	115			
Nickel	0.49	0.010	0.5000	0	97.2	85	115			
Selenium	0.48	0.050	0.5000	0	96.9	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.6	85	115			

Sample ID **1707267-005DMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**
Client ID: **OLF-FB** Batch ID: **32718** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.59	0.020	0.5000	0	117	70	130			
Barium	0.51	0.0020	0.5000	0	101	70	130			
Boron	0.57	0.040	0.5000	0.06030	102	70	130			
Cadmium	0.50	0.0020	0.5000	0	99.3	70	130			
Chromium	0.51	0.0060	0.5000	0	102	70	130			
Cobalt	0.49	0.0060	0.5000	0	97.2	70	130			
Copper	0.50	0.0060	0.5000	0	100	70	130			
Iron	0.51	0.020	0.5000	0	103	70	130			
Lead	0.49	0.0050	0.5000	0	98.9	70	130			
Manganese	0.49	0.0020	0.5000	0	98.5	70	130			
Molybdenum	0.51	0.0080	0.5000	0	101	70	130			
Nickel	0.49	0.010	0.5000	0	97.5	70	130			
Selenium	0.49	0.050	0.5000	0	97.2	70	130			
Silver	0.10	0.0050	0.1000	0	99.9	70	130			
Zinc	0.49	0.010	0.5000	0	97.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1707267-005DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **OLF-FB** Batch ID: **32718** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.59	0.020	0.5000	0	117	70	130	0.251	20	
Barium	0.51	0.0020	0.5000	0	101	70	130	0.0968	20	
Boron	0.57	0.040	0.5000	0.06030	102	70	130	0.356	20	
Cadmium	0.50	0.0020	0.5000	0	99.1	70	130	0.220	20	
Chromium	0.50	0.0060	0.5000	0	101	70	130	0.636	20	
Cobalt	0.48	0.0060	0.5000	0	97.0	70	130	0.206	20	
Copper	0.50	0.0060	0.5000	0	99.9	70	130	0.501	20	
Iron	0.51	0.020	0.5000	0	101	70	130	1.41	20	
Lead	0.50	0.0050	0.5000	0	99.1	70	130	0.261	20	
Manganese	0.49	0.0020	0.5000	0	98.5	70	130	0.00406	20	
Molybdenum	0.51	0.0080	0.5000	0	102	70	130	0.276	20	
Nickel	0.49	0.010	0.5000	0	97.3	70	130	0.197	20	
Selenium	0.49	0.050	0.5000	0	97.7	70	130	0.525	20	
Silver	0.099	0.0050	0.1000	0	99.0	70	130	0.985	20	
Zinc	0.49	0.010	0.5000	0	97.8	70	130	0.180	20	

Sample ID **MB-32720** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **32720** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LLLCS-32720** SampType: **LCSLL** TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC** Batch ID: **32720** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393277** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **LLLCS-32720** SampType: **LCSLL** TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC** Batch ID: **32720** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393277** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	103	50	150			
Boron	0.040	0.040	0.04000	0	101	50	150			
Cadmium	ND	0.0020	0.002000	0	92.5	50	150			
Chromium	0.0073	0.0060	0.006000	0	122	50	150			
Cobalt	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0064	0.0060	0.006000	0	106	50	150			
Iron	0.025	0.020	0.02000	0	124	50	150			
Manganese	ND	0.0020	0.002000	0	96.0	50	150			
Molybdenum	0.0087	0.0080	0.008000	0	109	50	150			
Nickel	ND	0.010	0.005000	0	110	50	150			
Selenium	0.059	0.050	0.05000	0	118	50	150			
Silver	0.0052	0.0050	0.005000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	118	50	150			

Sample ID **LCS-32720** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **32720** RunNo: **44105**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393278** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Boron	0.50	0.040	0.5000	0	99.7	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115			
Chromium	0.49	0.0060	0.5000	0	98.8	85	115			
Cobalt	0.47	0.0060	0.5000	0	94.6	85	115			
Copper	0.49	0.0060	0.5000	0	98.2	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.4	85	115			
Molybdenum	0.49	0.0080	0.5000	0	98.8	85	115			
Nickel	0.47	0.010	0.5000	0	94.6	85	115			
Selenium	0.47	0.050	0.5000	0	93.6	85	115			
Silver	0.098	0.0050	0.1000	0	97.5	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID **MB-32720** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **32720** RunNo: **44369**
Prep Date: **7/10/2017** Analysis Date: **7/20/2017** SeqNo: **1402257** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Lead	ND	0.0050								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **LCS-32720** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **32720** RunNo: **44369**
Prep Date: **7/10/2017** Analysis Date: **7/20/2017** SeqNo: **1402258** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.56	0.020	0.5000	0	111	85	115			
Lead	0.49	0.0050	0.5000	0	97.4	85	115			

Sample ID **LCSLL-32720** SampType: **LCSLL** TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC** Batch ID: **32720** RunNo: **44369**
Prep Date: Analysis Date: **7/20/2017** SeqNo: **1402733** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020	0.01000	0	130	50	150			
Lead	0.0050	0.0050	0.005000	0	100	50	150			

Sample ID **MB-32974** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **32974** RunNo: **44490**
Prep Date: **7/24/2017** Analysis Date: **7/25/2017** SeqNo: **1406483** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.020								

Sample ID **LCSLL-32974** SampType: **LCSLL** TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC** Batch ID: **32974** RunNo: **44490**
Prep Date: Analysis Date: **7/25/2017** SeqNo: **1406484** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.020	0.02000	0	131	50	150			

Sample ID **LCS-32974** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **32974** RunNo: **44490**
Prep Date: **7/24/2017** Analysis Date: **7/25/2017** SeqNo: **1406485** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.50	0.020	0.5000	0	99.6	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32974** SampType: **MBLK** TestCode: **EPA 200.8: Metals**
Client ID: **PBW** Batch ID: **32974** RunNo: **44462**
Prep Date: **7/24/2017** Analysis Date: **7/25/2017** SeqNo: **1405685** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Sample ID **MSLCS-32974** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **32974** RunNo: **44462**
Prep Date: **7/24/2017** Analysis Date: **7/25/2017** SeqNo: **1405686** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID **MSLLLCS-32974** SampType: **LCSLL** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **32974** RunNo: **44462**
Prep Date: **7/24/2017** Analysis Date: **7/25/2017** SeqNo: **1405687** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.00051	0.00050	0.0005000	0	103	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**MB-32848**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**
Client ID:	**PBW**	Batch ID:	**32848**	RunNo:	**44314**
Prep Date:	**7/18/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1399371** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-32848**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**
Client ID:	**LCSW**	Batch ID:	**32848**	RunNo:	**44314**
Prep Date:	**7/18/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1399372** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32979** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **32979** RunNo: **44475**
Prep Date: **7/24/2017** Analysis Date: **7/24/2017** SeqNo: **1406134** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								

Sample ID **LCS-32979** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **32979** RunNo: **44475**
Prep Date: **7/24/2017** Analysis Date: **7/24/2017** SeqNo: **1406135** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	94.5	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	99.2	90	110			

Sample ID **MB-33438** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **33438** RunNo: **45061**
Prep Date: **8/17/2017** Analysis Date: **8/17/2017** SeqNo: **1426672** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								

Sample ID **LCS-33438** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **33438** RunNo: **45061**
Prep Date: **8/17/2017** Analysis Date: **8/17/2017** SeqNo: **1426673** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	95.5	90	110			
Nitrogen, Nitrate (As N)	7.5	0.30	7.500	0	99.9	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**MB**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBW**	Batch ID:	**R44368**		RunNo:	**44368**					
Prep Date:		Analysis Date:	**7/19/2017**		SeqNo:	**1402082**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N		ND	0.20								

Sample ID	**LCS**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSW**	Batch ID:	**R44368**		RunNo:	**44368**					
Prep Date:		Analysis Date:	**7/19/2017**		SeqNo:	**1402083**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N		3.4	0.20	3.500	0	96.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32733** SampType: **MBLK** TestCode: **EPA Method 8082: PCB's**
Client ID: **PBS** Batch ID: **32733** RunNo: **44244**
Prep Date: **7/11/2017** Analysis Date: **7/14/2017** SeqNo: **1397259** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.060		0.06250		95.2	26.3	128			
Surr: Tetrachloro-m-xylene	0.062		0.06250		99.2	20.7	151			

Sample ID **LCS-32733** SampType: **LCS** TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS** Batch ID: **32733** RunNo: **44244**
Prep Date: **7/11/2017** Analysis Date: **7/14/2017** SeqNo: **1397262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.21	0.020	0.1250	0	167	15	195			
Aroclor 1260	0.13	0.020	0.1250	0	104	24	140			
Surr: Decachlorobiphenyl	0.062		0.06250		98.8	26.3	128			
Surr: Tetrachloro-m-xylene	0.062		0.06250		99.2	20.7	151			

Sample ID **MB-33232** SampType: **MBLK** TestCode: **EPA Method 8082: PCB's**
Client ID: **PBS** Batch ID: **33232** RunNo: **44954**
Prep Date: **8/8/2017** Analysis Date: **8/15/2017** SeqNo: **1421719** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.035		0.06250		56.0	26.3	128			
Surr: Tetrachloro-m-xylene	0.039		0.06250		62.4	20.7	151			

Sample ID **LCS-33232** SampType: **LCS** TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS** Batch ID: **33232** RunNo: **44954**
Prep Date: **8/8/2017** Analysis Date: **8/15/2017** SeqNo: **1421734** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**LCS-33232**	SampType:	**LCS**	TestCode:	**EPA Method 8082: PCB's**
Client ID:	**LCSS**	Batch ID:	**33232**	RunNo:	**44954**
Prep Date:	**8/8/2017**	Analysis Date:	**8/15/2017**	SeqNo:	**1421734** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.11	0.020	0.1250	0	87.4	15	195			
Aroclor 1260	0.096	0.020	0.1250	0	77.2	24	140			
Surr: Decachlorobiphenyl	0.046		0.06250		74.4	26.3	128			
Surr: Tetrachloro-m-xylene	0.054		0.06250		87.2	20.7	151			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32749** SampType: **MBLK** TestCode: **EPA Method 8082: PCB's**
Client ID: **PBW** Batch ID: **32749** RunNo: **44248**
Prep Date: **7/11/2017** Analysis Date: **7/17/2017** SeqNo: **1397438** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	1.0								
Aroclor 1221	ND	1.0								
Aroclor 1232	ND	1.0								
Aroclor 1242	ND	1.0								
Aroclor 1248	ND	1.0								
Aroclor 1254	ND	1.0								
Aroclor 1260	ND	1.0								
Surr: Decachlorobiphenyl	2.3		2.500		91.6	50.4	123			
Surr: Tetrachloro-m-xylene	1.8		2.500		71.2	41.2	147			

Sample ID **LCS-32749** SampType: **LCS** TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSW** Batch ID: **32749** RunNo: **44248**
Prep Date: **7/11/2017** Analysis Date: **7/17/2017** SeqNo: **1397439** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	4.8	1.0	5.000	0	95.6	34.2	145			
Aroclor 1260	5.3	1.0	5.000	0	106	37.1	148			
Surr: Decachlorobiphenyl	2.6		2.500		105	50.4	123			
Surr: Tetrachloro-m-xylene	1.9		2.500		76.4	41.2	147			

Sample ID **LCSD-32749** SampType: **LCSD** TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS02** Batch ID: **32749** RunNo: **44248**
Prep Date: **7/11/2017** Analysis Date: **7/17/2017** SeqNo: **1397440** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	4.1	1.0	5.000	0	82.2	34.2	145	15.1	54	
Aroclor 1260	5.0	1.0	5.000	0	99.0	37.1	148	7.21	53.9	
Surr: Decachlorobiphenyl	2.5		2.500		98.4	50.4	123	0	0	
Surr: Tetrachloro-m-xylene	1.7		2.500		68.0	41.2	147	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**			
Client ID: **PBS**	Batch ID: **D44109**	RunNo: **44109**			
Prep Date:	Analysis Date: **7/10/2017**	SeqNo: **1391826**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **rb4** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **D44109** RunNo: **44109**
Prep Date: Analysis Date: **7/10/2017** SeqNo: **1391826** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.58		0.5000		116	70	130			
Surr: 1,2-Dichloroethane-d4	0.58		0.5000		115	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.7	70	130			

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **D44109** RunNo: **44109**
Prep Date: Analysis Date: **7/10/2017** SeqNo: **1391827** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	123	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Chlorobenzene	1.1	0.050	1.000	0	108	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **D44109** RunNo: **44109**
Prep Date: Analysis Date: **7/10/2017** SeqNo: **1391827** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.3	0.050	1.000	0	126	68.8	161			
Trichloroethene (TCE)	1.1	0.050	1.000	0	110	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		111	70	130			
Surr: 1,2-Dichloroethane-d4	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.2	70	130			

Sample ID **1707267-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **OLF-SB-26-15-17** Batch ID: **D44109** RunNo: **44109**
Prep Date: Analysis Date: **7/11/2017** SeqNo: **1391829** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.8	0.037	1.495	0	117	61.9	146			
Toluene	1.5	0.075	1.495	0	100	70	130			
Chlorobenzene	1.6	0.075	1.495	0	109	70	130			
1,1-Dichloroethene	2.1	0.075	1.495	0	142	37.1	170			
Trichloroethene (TCE)	1.6	0.075	1.495	0	109	49.8	150			
Surr: Dibromofluoromethane	0.85		0.7474		113	70	130			
Surr: 1,2-Dichloroethane-d4	0.83		0.7474		112	70	130			
Surr: Toluene-d8	0.74		0.7474		99.5	70	130			
Surr: 4-Bromofluorobenzene	0.67		0.7474		89.8	70	130			

Sample ID **mb-32708** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **32708** RunNo: **44140**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32708**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**			
Client ID: **PBS**	Batch ID: **32708**	RunNo: **44140**			
Prep Date: **7/10/2017**	Analysis Date: **7/11/2017**	SeqNo: **1393092**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32708** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **32708** RunNo: **44140**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.6	70	130			

Sample ID **lcs-32708** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **32708** RunNo: **44140**
Prep Date: **7/10/2017** Analysis Date: **7/11/2017** SeqNo: **1393093** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	122	70	130			
Toluene	1.0	0.050	1.000	0	99.7	70	130			
Chlorobenzene	1.1	0.050	1.000	0	107	70	130			
1,1-Dichloroethene	1.6	0.050	1.000	0	156	68.8	161			
Trichloroethene (TCE)	1.1	0.050	1.000	0	110	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: 1,2-Dichloroethane-d4	0.56		0.5000		111	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.2	70	130			

Sample ID **1707267-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **OLF-SB-26-15-17** Batch ID: **D44109** RunNo: **44140**
Prep Date: Analysis Date: **7/11/2017** SeqNo: **1393097** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.9	0.037	1.495	0	126	61.9	146	6.91	20	
Toluene	1.6	0.075	1.495	0	104	70	130	3.61	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1707267-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **OLF-SB-26-15-17** Batch ID: **D44109** RunNo: **44140**
Prep Date: Analysis Date: **7/11/2017** SeqNo: **1393097** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	1.7	0.075	1.495	0	113	70	130	3.35	20	
1,1-Dichloroethene	2.4	0.075	1.495	0	158	37.1	170	10.8	20	
Trichloroethene (TCE)	1.7	0.075	1.495	0	114	49.8	150	4.49	20	
Surr: Dibromofluoromethane	0.84		0.7474		113	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.84		0.7474		112	70	130	0	0	
Surr: Toluene-d8	0.75		0.7474		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.69		0.7474		91.9	70	130	0	0	

Sample ID **mb-33294** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **33294** RunNo: **44930**
Prep Date: **8/10/2017** Analysis Date: **8/11/2017** SeqNo: **1421063** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-33294**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**			
Client ID: **PBS**	Batch ID: **33294**	RunNo: **44930**			
Prep Date: **8/10/2017**	Analysis Date: **8/11/2017**	SeqNo: **1421063**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-33294** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **33294** RunNo: **44930**
Prep Date: **8/10/2017** Analysis Date: **8/11/2017** SeqNo: **1421063** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.55		0.5000		111	70	130			
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.8	70	130			

Sample ID **lcs-33294** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **33294** RunNo: **44930**
Prep Date: **8/10/2017** Analysis Date: **8/11/2017** SeqNo: **1421064** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	119	70	130			
Toluene	0.99	0.050	1.000	0	99.0	70	130			
Chlorobenzene	1.0	0.050	1.000	0	104	70	130			
1,1-Dichloroethene	1.3	0.050	1.000	0	126	68.8	161			
Trichloroethene (TCE)	1.0	0.050	1.000	0	102	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: 1,2-Dichloroethane-d4	0.58		0.5000		117	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.4	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **100ng lcs** SampType: **LCS4** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC** Batch ID: **R44107** RunNo: **44107**
Prep Date: Analysis Date: **7/10/2017** SeqNo: **1391695** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	20	1.0	20.00	0	98.8	70	130			
Ethylbenzene	20	1.0	20.00	0	99.6	70	130			
Methyl tert-butyl ether (MTBE)	39	1.0	40.00	0	97.6	70	130			
1,2,4-Trimethylbenzene	20	1.0	20.00	0	100	70	130			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.6	70	130			
1,2-Dichloroethane (EDC)	20	1.0	20.00	0	99.9	62.2	143			
1,2-Dibromoethane (EDB)	19	1.0	20.00	0	96.6	70	130			
Naphthalene	18	2.0	20.00	0	89.1	70	130			
1-Methylnaphthalene	18	4.0	20.00	0	91.3	60	140			
2-Methylnaphthalene	14	4.0	20.00	0	68.4	60	140			
Acetone	41	10	40.00	0	102	60	140			
Bromobenzene	20	1.0	20.00	0	101	70	130			
Bromodichloromethane	21	1.0	20.00	0	105	70	130			
Bromoform	20	1.0	20.00	0	98.0	70	130			
Bromomethane	19	3.0	20.00	0	95.8	60	140			
2-Butanone	46	10	40.00	0	114	60	140			
Carbon disulfide	38	10	40.00	0	94.0	60	140			
Carbon Tetrachloride	20	1.0	20.00	0	102	70	130			
Chlorobenzene	20	1.0	20.00	0	100	70	130			
Chloroethane	20	2.0	20.00	0	97.6	60	140			
Chloroform	21	1.0	20.00	0	104	70	130			
Chloromethane	17	3.0	20.00	0	85.8	60	140			
2-Chlorotoluene	20	1.0	20.00	0	99.7	70	130			
4-Chlorotoluene	20	1.0	20.00	0	99.3	70	130			
cis-1,2-DCE	21	1.0	20.00	0	107	70	130			
cis-1,3-Dichloropropene	19	1.0	20.00	0	94.3	70	130			
1,2-Dibromo-3-chloropropane	20	2.0	20.00	0	98.0	70	130			
Dibromochloromethane	19	1.0	20.00	0	93.7	70	130			
Dibromomethane	21	1.0	20.00	0	104	70	130			
1,2-Dichlorobenzene	20	1.0	20.00	0	98.0	70	130			
1,3-Dichlorobenzene	20	1.0	20.00	0	101	70	130			
1,4-Dichlorobenzene	20	1.0	20.00	0	101	67.2	141			
Dichlorodifluoromethane	15	1.0	20.00	0	77.4	60	140			
1,1-Dichloroethane	20	1.0	20.00	0	100	52.6	157			
1,1-Dichloroethene	20	1.0	20.00	0	97.5	70	130			
1,2-Dichloropropane	20	1.0	20.00	0	101	63.7	138			
1,3-Dichloropropane	19	1.0	20.00	0	96.6	70	130			
2,2-Dichloropropane	21	2.0	20.00	0	104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **100ng lcs** SampType: **LCS4** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC** Batch ID: **R44107** RunNo: **44107**
Prep Date: Analysis Date: **7/10/2017** SeqNo: **1391695** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	20	1.0	20.00	0	102	70	130			
Hexachlorobutadiene	17	1.0	20.00	0	86.8	70	130			
2-Hexanone	37	10	40.00	0	92.1	60	140			
Isopropylbenzene	20	1.0	20.00	0	99.3	70	130			
4-Isopropyltoluene	20	1.0	20.00	0	101	70	130			
4-Methyl-2-pentanone	39	10	40.00	0	96.9	60	140			
Methylene Chloride	20	3.0	20.00	0	101	70	130			
n-Butylbenzene	19	3.0	20.00	0	93.4	70	130			
n-Propylbenzene	20	1.0	20.00	0	97.6	70	130			
sec-Butylbenzene	19	1.0	20.00	0	95.8	70	130			
Styrene	20	1.0	20.00	0	100	70	130			
tert-Butylbenzene	20	1.0	20.00	0	98.3	70	130			
1,1,1,2-Tetrachloroethane	20	1.0	20.00	0	98.3	70	130			
1,1,2,2-Tetrachloroethane	20	2.0	20.00	0	101	65.9	133			
Tetrachloroethene (PCE)	21	1.0	20.00	0	103	70	130			
trans-1,2-DCE	20	1.0	20.00	0	98.9	70	130			
trans-1,3-Dichloropropene	18	1.0	20.00	0	91.4	70	130			
1,2,3-Trichlorobenzene	18	1.0	20.00	0	91.2	70	130			
1,2,4-Trichlorobenzene	18	1.0	20.00	0	90.7	70	130			
1,1,1-Trichloroethane	20	1.0	20.00	0	102	70	130			
1,1,2-Trichloroethane	19	1.0	20.00	0	96.9	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130			
Trichlorofluoromethane	20	1.0	20.00	0	100	70	130			
1,2,3-Trichloropropane	20	2.0	20.00	0	99.7	69.7	129			
Vinyl chloride	18	1.0	20.00	0	90.2	70	130			
Xylenes, Total	60	1.5	60.00	0	99.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **RB** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW** Batch ID: **R44107** RunNo: **44107**
Prep Date: Analysis Date: **7/10/2017** SeqNo: **1391703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R44107**	RunNo: **44107**	
Prep Date:	Analysis Date: **7/10/2017**	SeqNo: **1391703**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **RB** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW** Batch ID: **R44107** RunNo: **44107**
Prep Date: Analysis Date: **7/10/2017** SeqNo: **1391703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW** Batch ID: **W44930** RunNo: **44930**
Prep Date: Analysis Date: **8/11/2017** SeqNo: **1421019** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.4	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**100ng lcs**	SampType:	**LCS**	TestCode:	**EPA Method 8260B: VOLATILES**
Client ID:	**LCSW**	Batch ID:	**W44930**	RunNo:	**44930**
Prep Date:		Analysis Date:	**8/11/2017**	SeqNo:	**1421020** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.5	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **lcs-32762** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS** Batch ID: **32762** RunNo: **44288**
Prep Date: **7/12/2017** Analysis Date: **7/17/2017** SeqNo: **1398609** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.1	39.4	110			
4-Chloro-3-methylphenol	2.0	0.50	3.330	0	60.5	41.6	108			
2-Chlorophenol	1.9	0.20	3.330	0	57.8	35	107			
1,4-Dichlorobenzene	0.95	0.20	1.670	0	57.0	31	105			
2,4-Dinitrotoluene	0.99	0.50	1.670	0	59.1	35.6	101			
N-Nitrosodi-n-propylamine	0.85	0.20	1.670	0	50.8	26	100			
4-Nitrophenol	2.3	0.25	3.330	0	68.7	34.1	106			
Pentachlorophenol	1.9	0.40	3.330	0	55.7	35.3	95.4			
Phenol	2.0	0.20	3.330	0	60.4	39.3	96.5			
Pyrene	1.2	0.20	1.670	0	73.8	47.8	95.7			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	69.1	36.6	117			
Surr: 2-Fluorophenol	1.6		3.330		47.5	21.4	101			
Surr: Phenol-d5	1.7		3.330		51.6	32	110			
Surr: 2,4,6-Tribromophenol	2.0		3.330		60.9	38.7	115			
Surr: Nitrobenzene-d5	1.1		1.670		64.0	26.2	120			
Surr: 2-Fluorobiphenyl	1.1		1.670		66.5	36.2	124			
Surr: 4-Terphenyl-d14	0.87		1.670		52.2	15	114			

Sample ID **mb-32762** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS** Batch ID: **32762** RunNo: **44288**
Prep Date: **7/12/2017** Analysis Date: **7/17/2017** SeqNo: **1398610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32762**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **32762**	RunNo: **44288**			
Prep Date: **7/12/2017**	Analysis Date: **7/17/2017**	SeqNo: **1398610**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32762** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS** Batch ID: **32762** RunNo: **44288**
Prep Date: **7/12/2017** Analysis Date: **7/17/2017** SeqNo: **1398610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.0		3.330		60.2	21.4	101			
Surr: Phenol-d5	2.1		3.330		63.1	32	110			
Surr: 2,4,6-Tribromophenol	2.1		3.330		61.8	38.7	115			
Surr: Nitrobenzene-d5	1.3		1.670		76.7	26.2	120			
Surr: 2-Fluorobiphenyl	1.3		1.670		75.5	36.2	124			
Surr: 4-Terphenyl-d14	0.96		1.670		57.2	15	114			

Sample ID **lcs-33200** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS** Batch ID: **33200** RunNo: **44978**
Prep Date: **8/7/2017** Analysis Date: **8/14/2017** SeqNo: **1423145** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.0	39.4	110			
4-Chloro-3-methylphenol	1.9	0.50	3.330	0	55.7	41.6	108			
2-Chlorophenol	1.9	0.20	3.330	0	57.7	35	107			
1,4-Dichlorobenzene	0.99	0.20	1.670	0	59.1	31	105			
2,4-Dinitrotoluene	0.94	0.50	1.670	0	56.1	35.6	101			
N-Nitrosodi-n-propylamine	1.0	0.20	1.670	0	59.6	26	100			
4-Nitrophenol	2.3	0.25	3.330	0	70.4	34.1	106			
Pentachlorophenol	1.7	0.40	3.330	0	51.9	35.3	95.4			
Phenol	1.9	0.20	3.330	0	56.1	39.3	96.5			
Pyrene	1.2	0.20	1.670	0	71.9	47.8	95.7			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	76.7	36.6	117			
Surr: 2-Fluorophenol	1.6		3.330		47.9	23.3	81			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **lcs-33200** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS** Batch ID: **33200** RunNo: **44978**
Prep Date: **8/7/2017** Analysis Date: **8/14/2017** SeqNo: **1423145** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	1.8		3.330		53.8	19.4	93.6			
Surr: 2,4,6-Tribromophenol	2.1		3.330		62.5	31.1	88.7			
Surr: Nitrobenzene-d5	1.2		1.670		69.1	23.7	106			
Surr: 2-Fluorobiphenyl	1.2		1.670		71.7	26.3	107			
Surr: 4-Terphenyl-d14	0.89		1.670		53.5	32.5	80.1			

Sample ID **mb-33200** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS** Batch ID: **33200** RunNo: **44978**
Prep Date: **8/7/2017** Analysis Date: **8/14/2017** SeqNo: **1423146** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-33200**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **33200**	RunNo: **44978**			
Prep Date: **8/7/2017**	Analysis Date: **8/14/2017**	SeqNo: **1423146**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-33200**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBS**	Batch ID: **33200**	RunNo: **44978**			
Prep Date: **8/7/2017**	Analysis Date: **8/14/2017**	SeqNo: **1423146**	Units: **mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	1.5		3.330		44.6	23.3	81			
Surr: Phenol-d5	1.7		3.330		50.1	19.4	93.6			
Surr: 2,4,6-Tribromophenol	2.3		3.330		67.6	31.1	88.7			
Surr: Nitrobenzene-d5	1.1		1.670		65.8	23.7	106			
Surr: 2-Fluorobiphenyl	1.1		1.670		68.8	26.3	107			
Surr: 4-Terphenyl-d14	0.95		1.670		57.0	32.5	80.1			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **lcs-32735** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW** Batch ID: **32735** RunNo: **44141**
Prep Date: **7/11/2017** Analysis Date: **7/11/2017** SeqNo: **1393107** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	64	10	100.0	0	64.2	41.2	98.9			
4-Chloro-3-methylphenol	130	10	200.0	0	66.0	29.1	111			
2-Chlorophenol	120	10	200.0	0	60.1	23.3	108			
1,4-Dichlorobenzene	51	10	100.0	0	51.4	29.4	84.5			
2,4-Dinitrotoluene	58	10	100.0	0	57.6	36.6	88.7			
N-Nitrosodi-n-propylamine	67	10	100.0	0	66.9	46.9	106			
4-Nitrophenol	96	10	200.0	0	47.8	15	74.7			
Pentachlorophenol	110	20	200.0	0	52.9	28.1	85.4			
Phenol	90	10	200.0	0	45.2	15	78.2			
Pyrene	76	10	100.0	0	75.6	44.4	96.8			
1,2,4-Trichlorobenzene	59	10	100.0	0	58.8	34.3	89			
Surr: 2-Fluorophenol	98		200.0		48.9	15	98.1			
Surr: Phenol-d5	93		200.0		46.3	15	80.7			
Surr: 2,4,6-Tribromophenol	110		200.0		56.8	15	112			
Surr: Nitrobenzene-d5	70		100.0		70.2	27.2	90.7			
Surr: 2-Fluorobiphenyl	66		100.0		65.6	23.3	85.6			
Surr: 4-Terphenyl-d14	55		100.0		55.4	27.6	107			

Sample ID **lcsd-32735** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02** Batch ID: **32735** RunNo: **44141**
Prep Date: **7/11/2017** Analysis Date: **7/11/2017** SeqNo: **1393108** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	75	10	100.0	0	74.6	41.2	98.9	15.0	37.4	
4-Chloro-3-methylphenol	120	10	200.0	0	61.8	29.1	111	6.50	26.8	
2-Chlorophenol	120	10	200.0	0	59.0	23.3	108	1.88	30.3	
1,4-Dichlorobenzene	54	10	100.0	0	53.8	29.4	84.5	4.56	32	
2,4-Dinitrotoluene	59	10	100.0	0	59.0	36.6	88.7	2.30	36.7	
N-Nitrosodi-n-propylamine	67	10	100.0	0	66.8	46.9	106	0.0898	29.9	
4-Nitrophenol	96	10	200.0	0	48.2	15	74.7	0.896	28.8	
Pentachlorophenol	100	20	200.0	0	50.7	28.1	85.4	4.11	38.2	
Phenol	92	10	200.0	0	46.0	15	78.2	1.84	39.8	
Pyrene	73	10	100.0	0	73.1	44.4	96.8	3.34	28.3	
1,2,4-Trichlorobenzene	59	10	100.0	0	58.9	34.3	89	0.204	39.8	
Surr: 2-Fluorophenol	100		200.0		50.5	15	98.1	0	0	
Surr: Phenol-d5	96		200.0		47.8	15	80.7	0	0	
Surr: 2,4,6-Tribromophenol	110		200.0		56.5	15	112	0	0	
Surr: Nitrobenzene-d5	68		100.0		68.1	27.2	90.7	0	0	
Surr: 2-Fluorobiphenyl	70		100.0		69.6	23.3	85.6	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **lcsd-32735**	SampType: **LCSD**		TestCode: **EPA Method 8270C: Semivolatiles**		
Client ID: **LCSS02**	Batch ID: **32735**		RunNo: **44141**		
Prep Date: **7/11/2017**	Analysis Date: **7/11/2017**		SeqNo: **1393108**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	54		100.0		54.5	27.6	107	0	0	

Sample ID **mb-32735**	SampType: **MBLK**		TestCode: **EPA Method 8270C: Semivolatiles**		
Client ID: **PBW**	Batch ID: **32735**		RunNo: **44141**		
Prep Date: **7/11/2017**	Analysis Date: **7/11/2017**		SeqNo: **1393109**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32735**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**			
Client ID: **PBW**	Batch ID: **32735**	RunNo: **44141**			
Prep Date: **7/11/2017**	Analysis Date: **7/11/2017**	SeqNo: **1393109**	Units: **µg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **mb-32735** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW** Batch ID: **32735** RunNo: **44141**
Prep Date: **7/11/2017** Analysis Date: **7/11/2017** SeqNo: **1393109** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	83		200.0		41.7	15	98.1			
Surr: Phenol-d5	88		200.0		43.9	15	80.7			
Surr: 2,4,6-Tribromophenol	97		200.0		48.5	15	112			
Surr: Nitrobenzene-d5	79		100.0		79.4	27.2	90.7			
Surr: 2-Fluorobiphenyl	75		100.0		75.0	23.3	85.6			
Surr: 4-Terphenyl-d14	60		100.0		60.3	27.6	107			

Sample ID **lcs-33347** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW** Batch ID: **33347** RunNo: **45088**
Prep Date: **8/14/2017** Analysis Date: **8/17/2017** SeqNo: **1427348** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	120		200.0		61.4	15	88			
Surr: Phenol-d5	110		200.0		56.5	15	72.4			
Surr: 2,4,6-Tribromophenol	160		200.0		78.8	15	117			
Surr: Nitrobenzene-d5	81		100.0		81.3	33.5	120			
Surr: 2-Fluorobiphenyl	82		100.0		81.7	26.5	109			
Surr: 4-Terphenyl-d14	65		100.0		64.9	21.7	98.7			

Sample ID **mb-33347** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW** Batch ID: **33347** RunNo: **45088**
Prep Date: **8/14/2017** Analysis Date: **8/17/2017** SeqNo: **1427349** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		64.6	15	88			
Surr: Phenol-d5	120		200.0		58.0	15	72.4			
Surr: 2,4,6-Tribromophenol	160		200.0		78.4	15	117			
Surr: Nitrobenzene-d5	85		100.0		85.2	33.5	120			
Surr: 2-Fluorobiphenyl	78		100.0		78.2	26.5	109			
Surr: 4-Terphenyl-d14	65		100.0		65.3	21.7	98.7			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32734** SampType: **MBLK** TestCode: **EPA Method 8310: PAHs**
Client ID: **PBS** Batch ID: **32734** RunNo: **44182**
Prep Date: **7/11/2017** Analysis Date: **7/13/2017** SeqNo: **1394322** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.25								
1-Methylnaphthalene	ND	0.25								
2-Methylnaphthalene	ND	0.25								
Acenaphthylene	ND	0.25								
Acenaphthene	ND	0.25								
Fluorene	ND	0.030								
Phenanthrene	ND	0.015								
Anthracene	ND	0.015								
Fluoranthene	ND	0.020								
Pyrene	ND	0.025								
Benz(a)anthracene	ND	0.010								
Chrysene	ND	0.010								
Benzo(b)fluoranthene	ND	0.010								
Benzo(k)fluoranthene	ND	0.010								
Benzo(a)pyrene	ND	0.010								
Dibenz(a,h)anthracene	ND	0.010								
Benzo(g,h,i)perylene	ND	0.010								
Indeno(1,2,3-cd)pyrene	ND	0.010								
Surr: Benzo(e)pyrene	0.37		0.5000		75.0	32.4	163			

Sample ID **LCS-32734** SampType: **LCS** TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS** Batch ID: **32734** RunNo: **44182**
Prep Date: **7/11/2017** Analysis Date: **7/13/2017** SeqNo: **1394323** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.2	0.25	2.000	0	62.3	38.1	121			
1-Methylnaphthalene	1.3	0.25	2.000	0	64.0	39.8	121			
2-Methylnaphthalene	1.3	0.25	2.000	0	64.1	38.6	119			
Acenaphthylene	1.4	0.25	2.000	0	72.4	56.9	119			
Acenaphthene	1.4	0.25	2.000	0	67.5	39.1	121			
Fluorene	0.14	0.030	0.2000	0	68.6	35.8	116			
Phenanthrene	0.075	0.015	0.1006	0	74.3	34.3	126			
Anthracene	0.075	0.015	0.1006	0	74.6	31.2	117			
Fluoranthene	0.16	0.020	0.2006	0	79.4	31.2	136			
Pyrene	0.16	0.025	0.2000	0	77.6	40.8	128			
Benz(a)anthracene	0.016	0.010	0.02000	0	80.0	25.7	136			
Chrysene	0.076	0.010	0.1006	0	75.3	34.2	129			
Benzo(b)fluoranthene	0.019	0.010	0.02500	0	76.0	33.2	121			
Benzo(k)fluoranthene	0.010	0.010	0.01250	0	82.0	35.7	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **LCS-32734** SampType: **LCS** TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS** Batch ID: **32734** RunNo: **44182**
Prep Date: **7/11/2017** Analysis Date: **7/13/2017** SeqNo: **1394323** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene	ND	0.010	0.01250	0	76.0	27	131			
Dibenz(a,h)anthracene	0.020	0.010	0.02500	0	79.0	29.4	131			
Benzo(g,h,i)perylene	0.021	0.010	0.02500	0	84.0	32.9	130			
Indeno(1,2,3-cd)pyrene	0.038	0.010	0.05002	0	75.0	28.2	135			
Surr: Benzo(e)pyrene	0.38		0.5000		75.5	32.4	163			

Sample ID **1707267-001AMS** SampType: **MS** TestCode: **EPA Method 8310: PAHs**
Client ID: **OLF-SB-26-15-17** Batch ID: **32734** RunNo: **44182**
Prep Date: **7/11/2017** Analysis Date: **7/13/2017** SeqNo: **1394410** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.1	0.25	1.997	0	53.8	24.1	128			
1-Methylnaphthalene	1.1	0.25	1.997	0	54.8	25.2	133			
2-Methylnaphthalene	1.1	0.25	1.997	0	54.7	23.9	132			
Acenaphthylene	1.3	0.25	1.997	0	63.6	27.7	137			
Acenaphthene	1.1	0.25	1.997	0	57.3	24.6	131			
Fluorene	0.12	0.030	0.1997	0	57.9	19.6	132			
Phenanthrene	0.064	0.015	0.1004	0	63.4	23.6	148			
Anthracene	0.065	0.015	0.1004	0	65.1	25.6	134			
Fluoranthene	0.14	0.020	0.2003	0	68.9	26.8	148			
Pyrene	0.13	0.025	0.1997	0	67.0	26.5	144			
Benz(a)anthracene	0.013	0.010	0.01997	0	66.2	15.9	158			
Chrysene	0.066	0.010	0.1004	0	65.6	22.5	150			
Benzo(b)fluoranthene	0.016	0.010	0.02496	0	63.0	15	157			
Benzo(k)fluoranthene	ND	0.010	0.01248	0	64.0	15	173			
Benzo(a)pyrene	ND	0.010	0.01248	0	62.0	15	172			
Dibenz(a,h)anthracene	0.016	0.010	0.02496	0	66.0	21	160			
Benzo(g,h,i)perylene	0.016	0.010	0.02496	0	65.0	17.1	171			
Indeno(1,2,3-cd)pyrene	0.029	0.010	0.04995	0	58.5	15	178			
Surr: Benzo(e)pyrene	0.34		0.4993		68.2	32.4	163			

Sample ID **1707267-001AMSD** SampType: **MSD** TestCode: **EPA Method 8310: PAHs**
Client ID: **OLF-SB-26-15-17** Batch ID: **32734** RunNo: **44182**
Prep Date: **7/11/2017** Analysis Date: **7/13/2017** SeqNo: **1394506** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	0.97	0.25	1.994	0	48.6	24.1	128	10.2	28.6	
1-Methylnaphthalene	0.98	0.25	1.994	0	49.3	25.2	133	10.7	28.1	
2-Methylnaphthalene	0.98	0.25	1.994	0	49.4	23.9	132	10.4	28.5	
Acenaphthylene	1.1	0.25	1.994	0	57.1	27.7	137	10.9	28.6	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1707267-001AMSD** SampType: **MSD** TestCode: **EPA Method 8310: PAHs**
Client ID: **OLF-SB-26-15-17** Batch ID: **32734** RunNo: **44182**
Prep Date: **7/11/2017** Analysis Date: **7/13/2017** SeqNo: **1394506** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.0	0.25	1.994	0	51.8	24.6	131	10.1	30.4	
Fluorene	0.10	0.030	0.1994	0	52.4	19.6	132	10.1	58.1	
Phenanthrene	0.057	0.015	0.1003	0	56.9	23.6	148	10.9	27.7	
Anthracene	0.058	0.015	0.1003	0	57.9	25.6	134	11.9	29.1	
Fluoranthene	0.12	0.020	0.2000	0	61.7	26.8	148	11.2	26.3	
Pyrene	0.12	0.025	0.1994	0	59.5	26.5	144	12.0	27	
Benz(a)anthracene	0.012	0.010	0.01994	0	60.0	15.9	158	10.1	29.4	
Chrysene	0.059	0.010	0.1003	0	58.6	22.5	150	11.3	27.9	
Benzo(b)fluoranthene	0.014	0.010	0.02493	0	56.0	15	157	11.9	28.7	
Benzo(k)fluoranthene	ND	0.010	0.01246	0	58.0	15	173	0	28.3	
Benzo(a)pyrene	ND	0.010	0.01246	0	56.0	15	172	0	29.6	
Dibenz(a,h)anthracene	0.015	0.010	0.02493	0	59.0	21	160	11.3	29.5	
Benzo(g,h,i)perylene	0.014	0.010	0.02493	0	58.0	17.1	171	11.5	27.5	
Indeno(1,2,3-cd)pyrene	0.026	0.010	0.04987	0	52.5	15	178	11.0	28.5	
Surr: Benzo(e)pyrene	0.30		0.4985		61.0	32.4	163	0	20	

Sample ID **MB-33260** SampType: **MBLK** TestCode: **EPA Method 8310: PAHs**
Client ID: **PBS** Batch ID: **33260** RunNo: **44961**
Prep Date: **8/9/2017** Analysis Date: **8/15/2017** SeqNo: **1423148** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.25								
1-Methylnaphthalene	ND	0.25								
2-Methylnaphthalene	ND	0.25								
Acenaphthylene	ND	0.25								
Acenaphthene	ND	0.25								
Fluorene	ND	0.030								
Phenanthrene	ND	0.015								
Anthracene	ND	0.015								
Fluoranthene	ND	0.020								
Pyrene	ND	0.025								
Benz(a)anthracene	ND	0.010								
Chrysene	ND	0.010								
Benzo(b)fluoranthene	ND	0.010								
Benzo(k)fluoranthene	ND	0.010								
Benzo(a)pyrene	ND	0.010								
Dibenz(a,h)anthracene	ND	0.010								
Benzo(g,h,i)perylene	ND	0.010								
Indeno(1,2,3-cd)pyrene	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-33260** SampType: **MBLK** TestCode: **EPA Method 8310: PAHs**
Client ID: **PBS** Batch ID: **33260** RunNo: **44961**
Prep Date: **8/9/2017** Analysis Date: **8/15/2017** SeqNo: **1423148** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Benzo(e)pyrene	0.32		0.5000		63.1	33.2	125			

Sample ID **LCS-33260** SampType: **LCS** TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS** Batch ID: **33260** RunNo: **44961**
Prep Date: **8/9/2017** Analysis Date: **8/15/2017** SeqNo: **1423149** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.3	0.25	2.000	0	62.8	38.1	121			
1-Methylnaphthalene	1.3	0.25	2.000	0	65.9	39.8	121			
2-Methylnaphthalene	1.3	0.25	2.000	0	65.8	38.6	119			
Acenaphthylene	1.6	0.25	2.000	0	78.7	56.9	119			
Acenaphthene	1.4	0.25	2.000	0	71.3	39.1	121			
Fluorene	0.15	0.030	0.2000	0	73.4	35.8	116			
Phenanthrene	0.078	0.015	0.1006	0	77.8	34.3	126			
Anthracene	0.084	0.015	0.1006	0	83.3	31.2	117			
Fluoranthene	0.16	0.020	0.2006	0	81.4	31.2	136			
Pyrene	0.15	0.025	0.2000	0	74.0	40.8	128			
Benz(a)anthracene	0.016	0.010	0.02000	0	82.5	25.7	136			
Chrysene	0.081	0.010	0.1006	0	80.8	34.2	129			
Benzo(b)fluoranthene	0.020	0.010	0.02500	0	80.0	33.2	121			
Benzo(k)fluoranthene	0.011	0.010	0.01250	0	84.0	35.7	130			
Benzo(a)pyrene	ND	0.010	0.01250	0	78.0	27	131			
Dibenz(a,h)anthracene	0.021	0.010	0.02500	0	83.0	29.4	131			
Benzo(g,h,i)perylene	0.020	0.010	0.02500	0	81.0	32.9	130			
Indeno(1,2,3-cd)pyrene	0.038	0.010	0.05002	0	76.0	28.2	135			
Surr: Benzo(e)pyrene	0.38		0.5000		76.7	33.2	125			

Sample ID **1707267-008AMS** SampType: **MS** TestCode: **EPA Method 8310: PAHs**
Client ID: **OLF-SB-27-35-37** Batch ID: **33260** RunNo: **44961**
Prep Date: **8/9/2017** Analysis Date: **8/15/2017** SeqNo: **1423152** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.2	0.25	1.999	0	60.2	24.1	128			H
1-Methylnaphthalene	1.2	0.25	1.999	0	60.1	25.2	133			H
2-Methylnaphthalene	1.2	0.25	1.999	0	60.2	23.9	132			H
Acenaphthylene	1.3	0.25	1.999	0	67.5	27.7	137			H
Acenaphthene	1.2	0.25	1.999	0	59.9	24.6	131			H
Fluorene	0.12	0.030	0.1999	0	59.8	19.6	132			H
Phenanthrene	0.064	0.015	0.1005	0	63.9	23.6	148			H
Anthracene	0.065	0.015	0.1005	0	64.6	25.6	134			H

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1707267-008AMS** SampType: **MS** TestCode: **EPA Method 8310: PAHs**
Client ID: **OLF-SB-27-35-37** Batch ID: **33260** RunNo: **44961**
Prep Date: **8/9/2017** Analysis Date: **8/15/2017** SeqNo: **1423152** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	0.13	0.020	0.2005	0	66.9	26.8	148			H
Pyrene	0.12	0.025	0.1999	0	61.0	26.5	144			H
Benz(a)anthracene	0.013	0.010	0.01999	0	67.5	15.9	158			H
Chrysene	0.067	0.010	0.1005	0	66.8	22.5	150			H
Benzo(b)fluoranthene	0.016	0.010	0.02499	0	66.0	15	157			H
Benzo(k)fluoranthene	ND	0.010	0.01249	0	68.0	15	173			H
Benzo(a)pyrene	ND	0.010	0.01249	0	60.0	15	172			H
Dibenz(a,h)anthracene	0.017	0.010	0.02499	0	67.0	21	160			H
Benzo(g,h,i)perylene	0.016	0.010	0.02499	0	66.0	17.1	171			H
Indeno(1,2,3-cd)pyrene	0.031	0.010	0.05000	0	61.5	15	178			H
Surr: Benzo(e)pyrene	0.32		0.4998		63.2	33.2	125			H

Sample ID **1707267-008AMSD** SampType: **MSD** TestCode: **EPA Method 8310: PAHs**
Client ID: **OLF-SB-27-35-37** Batch ID: **33260** RunNo: **44961**
Prep Date: **8/9/2017** Analysis Date: **8/15/2017** SeqNo: **1423153** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.3	0.25	1.977	0	67.6	24.1	128	10.5	28.6	H
1-Methylnaphthalene	1.3	0.25	1.977	0	67.4	25.2	133	10.4	28.1	H
2-Methylnaphthalene	1.3	0.25	1.977	0	68.1	23.9	132	11.1	28.5	H
Acenaphthylene	1.5	0.25	1.977	0	75.7	27.7	137	10.4	28.6	H
Acenaphthene	1.3	0.25	1.977	0	67.3	24.6	131	10.6	30.4	H
Fluorene	0.13	0.030	0.1977	0	67.3	19.6	132	10.7	58.1	H
Phenanthrene	0.072	0.015	0.09946	0	72.1	23.6	148	11.0	27.7	H
Anthracene	0.072	0.015	0.09946	0	72.6	25.6	134	10.5	29.1	H
Fluoranthene	0.15	0.020	0.1983	0	75.3	26.8	148	10.7	26.3	H
Pyrene	0.14	0.025	0.1977	0	68.4	26.5	144	10.3	27	H
Benz(a)anthracene	0.015	0.0099	0.01977	0	76.2	15.9	158	11.1	29.4	H
Chrysene	0.074	0.0099	0.09946	0	74.3	22.5	150	9.47	27.9	H
Benzo(b)fluoranthene	0.018	0.0099	0.02472	0	74.0	15	157	10.3	28.7	H
Benzo(k)fluoranthene	ND	0.0099	0.01236	0	76.0	15	173	0	28.3	H
Benzo(a)pyrene	ND	0.0099	0.01236	0	68.0	15	172	0	29.6	H
Dibenz(a,h)anthracene	0.019	0.0099	0.02472	0	76.0	21	160	11.5	29.5	H
Benzo(g,h,i)perylene	0.018	0.0099	0.02472	0	74.0	17.1	171	10.3	27.5	H
Indeno(1,2,3-cd)pyrene	0.035	0.0099	0.04945	0	70.0	15	178	11.8	28.5	H
Surr: Benzo(e)pyrene	0.35		0.4943		71.1	33.2	125	0	20	H

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32750** SampType: **MBLK** TestCode: **EPA Method 8310: PAHs**
Client ID: **PBW** Batch ID: **32750** RunNo: **44273**
Prep Date: **7/11/2017** Analysis Date: **7/18/2017** SeqNo: **1398136** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	2.0								
2-Methylnaphthalene	ND	2.0								
Acenaphthylene	ND	2.5								
Acenaphthene	ND	2.0								
Fluorene	ND	0.80								
Phenanthrene	ND	0.60								
Anthracene	ND	0.60								
Fluoranthene	ND	0.30								
Pyrene	ND	0.30								
Benz(a)anthracene	ND	0.070								
Chrysene	ND	0.20								
Benzo(b)fluoranthene	ND	0.10								
Benzo(k)fluoranthene	ND	0.070								
Benzo(a)pyrene	ND	0.070								
Dibenz(a,h)anthracene	ND	0.12								
Benzo(g,h,i)perylene	ND	0.12								
Indeno(1,2,3-cd)pyrene	ND	0.25								
Surr: Benzo(e)pyrene	15		20.00		75.0	49.1	127			

Sample ID **LCS-32750** SampType: **LCS** TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSW** Batch ID: **32750** RunNo: **44273**
Prep Date: **7/11/2017** Analysis Date: **7/18/2017** SeqNo: **1398137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	49	2.0	80.00	0	61.7	33.3	141			
1-Methylnaphthalene	49	2.0	80.20	0	61.7	35.5	139			
2-Methylnaphthalene	48	2.0	80.00	0	60.4	30.7	139			
Acenaphthylene	58	2.5	80.20	0	72.7	60.2	119			
Acenaphthene	52	2.0	80.00	0	65.0	56	126			
Fluorene	5.3	0.80	8.020	0	65.6	51.6	129			
Phenanthrene	2.9	0.60	4.020	0	72.9	58.8	129			
Anthracene	3.2	0.60	4.020	0	79.1	59.9	121			
Fluoranthene	6.4	0.30	8.020	0	79.3	48	145			
Pyrene	6.0	0.30	8.020	0	74.7	56.2	130			
Benz(a)anthracene	0.63	0.070	0.8020	0	78.6	50.4	142			
Chrysene	2.9	0.20	4.020	0	72.9	54.7	134			
Benzo(b)fluoranthene	0.72	0.10	1.002	0	71.9	61.8	120			
Benzo(k)fluoranthene	0.38	0.070	0.5000	0	76.0	55.9	134			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **LCS-32750** SampType: **LCS** TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSW** Batch ID: **32750** RunNo: **44273**
Prep Date: **7/11/2017** Analysis Date: **7/18/2017** SeqNo: **1398137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene	0.36	0.070	0.5020	0	71.7	49.1	142			
Dibenz(a,h)anthracene	0.78	0.12	1.002	0	77.8	57.8	134			
Benzo(g,h,i)perylene	0.75	0.12	1.000	0	75.0	57.2	134			
Indeno(1,2,3-cd)pyrene	1.4	0.25	2.004	0	68.9	58.2	137			
Surr: Benzo(e)pyrene	16		20.00		80.5	49.1	127			

Sample ID **LCSD-32750** SampType: **LCSD** TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS02** Batch ID: **32750** RunNo: **44273**
Prep Date: **7/11/2017** Analysis Date: **7/18/2017** SeqNo: **1398144** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	49	2.0	80.00	0	60.8	33.3	141	1.51	20.3	
1-Methylnaphthalene	49	2.0	80.20	0	61.2	35.5	139	0.832	22.7	
2-Methylnaphthalene	48	2.0	80.00	0	60.0	30.7	139	0.706	22.6	
Acenaphthylene	59	2.5	80.20	0	73.1	60.2	119	0.530	22.6	
Acenaphthene	52	2.0	80.00	0	64.6	56	126	0.656	21.4	
Fluorene	5.3	0.80	8.020	0	65.6	51.6	129	0	23.6	
Phenanthrene	2.9	0.60	4.020	0	71.6	58.8	129	1.72	24.7	
Anthracene	3.1	0.60	4.020	0	76.1	59.9	121	3.85	23.9	
Fluoranthene	6.3	0.30	8.020	0	78.7	48	145	0.789	25.1	
Pyrene	6.0	0.30	8.020	0	74.3	56.2	130	0.502	23.7	
Benz(a)anthracene	0.60	0.070	0.8020	0	74.8	50.4	142	4.88	19.2	
Chrysene	2.9	0.20	4.020	0	71.4	54.7	134	2.07	19.8	
Benzo(b)fluoranthene	0.71	0.10	1.002	0	70.9	61.8	120	1.40	22.1	
Benzo(k)fluoranthene	0.37	0.070	0.5000	0	74.0	55.9	134	2.67	27.2	
Benzo(a)pyrene	0.35	0.070	0.5020	0	69.7	49.1	142	2.82	30.2	
Dibenz(a,h)anthracene	0.76	0.12	1.002	0	75.8	57.8	134	2.60	23.8	
Benzo(g,h,i)perylene	0.73	0.12	1.000	0	73.0	57.2	134	2.70	19.1	
Indeno(1,2,3-cd)pyrene	1.4	0.25	2.004	0	68.4	58.2	137	0.727	19.6	
Surr: Benzo(e)pyrene	16		20.00		78.0	49.1	127	0		

Sample ID **MB-32827** SampType: **MBLK** TestCode: **EPA Method 8310: PAHs**
Client ID: **PBW** Batch ID: **32827** RunNo: **44273**
Prep Date: **7/17/2017** Analysis Date: **7/18/2017** SeqNo: **1398175** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Benzo(e)pyrene	15		20.00		72.9	49.1	127			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID	**LCS-32827**	SampType:	**LCS**	TestCode:	**EPA Method 8310: PAHs**
Client ID:	**LCSW**	Batch ID:	**32827**	RunNo:	**44273**
Prep Date:	**7/17/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1398176** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Benzo(e)pyrene	15		20.00		73.3	49.1	127			

Sample ID	**LCSD-32827**	SampType:	**LCSD**	TestCode:	**EPA Method 8310: PAHs**
Client ID:	**LCSS02**	Batch ID:	**32827**	RunNo:	**44273**
Prep Date:	**7/17/2017**	Analysis Date:	**7/18/2017**	SeqNo:	**1398188** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Benzo(e)pyrene	17		20.00		82.6	49.1	127	0		

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32737** SampType: **MBLK** TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS** Batch ID: **32737** RunNo: **44121**
Prep Date: **7/11/2017** Analysis Date: **7/11/2017** SeqNo: **1392436** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-32737** SampType: **LCS** TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS** Batch ID: **32737** RunNo: **44121**
Prep Date: **7/11/2017** Analysis Date: **7/11/2017** SeqNo: **1392437** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	99.0	80	120			

Sample ID **1707267-001AMS** SampType: **MS** TestCode: **EPA Method 7471: Mercury**
Client ID: **OLF-SB-26-15-17** Batch ID: **32737** RunNo: **44121**
Prep Date: **7/11/2017** Analysis Date: **7/11/2017** SeqNo: **1392441** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1659	0.006408	97.3	75	125			

Sample ID **1707267-001AMSD** SampType: **MSD** TestCode: **EPA Method 7471: Mercury**
Client ID: **OLF-SB-26-15-17** Batch ID: **32737** RunNo: **44121**
Prep Date: **7/11/2017** Analysis Date: **7/11/2017** SeqNo: **1392442** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.032	0.1594	0.006408	100	75	125	0.959	20	

Sample ID **MB-33350** SampType: **MBLK** TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS** Batch ID: **33350** RunNo: **44967**
Prep Date: **8/14/2017** Analysis Date: **8/15/2017** SeqNo: **1422462** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-33350** SampType: **LCS** TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS** Batch ID: **33350** RunNo: **44967**
Prep Date: **8/14/2017** Analysis Date: **8/15/2017** SeqNo: **1422463** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	104	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32789** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397607** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	3.0								
Arsenic	ND	2.5								
Barium	ND	0.10								
Boron	ND	2.0								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Copper	ND	0.30								
Iron	ND	2.5								
Lead	ND	0.25								
Manganese	ND	0.10								
Molybdenum	ND	0.40								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID **LCS-32789** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397608** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	27	3.0	25.00	0	109	80	120			
Arsenic	24	2.5	25.00	0	97.2	80	120			
Barium	24	0.10	25.00	0	96.6	80	120			
Boron	24	2.0	25.00	0	96.6	80	120			
Cadmium	24	0.10	25.00	0	95.9	80	120			
Chromium	24	0.30	25.00	0	95.6	80	120			
Cobalt	23	0.30	25.00	0	91.8	80	120			
Copper	25	0.30	25.00	0	98.7	80	120			
Iron	25	2.5	25.00	0	100	80	120			
Lead	24	0.25	25.00	0	95.4	80	120			
Manganese	24	0.10	25.00	0	95.5	80	120			
Molybdenum	26	0.40	25.00	0	102	80	120			
Nickel	24	0.50	25.00	0	94.1	80	120			
Selenium	23	2.5	25.00	0	93.3	80	120			
Silver	5.0	0.25	5.000	0	100	80	120			
Uranium	24	5.0	25.00	0	97.2	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **LCS-32789** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397608** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	23	2.5	25.00	0	92.7	80	120			

Sample ID **1707267-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-26-15-17** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397622** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	22	2.5	24.91	1.284	82.3	75	125			
Barium	56	0.10	24.91	34.98	84.8	75	125			
Cadmium	21	0.10	24.91	0	83.2	75	125			
Chromium	23	0.30	24.91	2.173	83.5	75	125			
Copper	24	0.30	24.91	2.714	86.8	75	125			
Lead	22	0.25	24.91	1.798	80.0	75	125			
Manganese	100	0.10	24.91	100.3	13.9	75	125			S
Molybdenum	21	0.40	24.91	0.2138	84.7	75	125			
Nickel	22	0.50	24.91	2.269	80.2	75	125			
Selenium	17	2.5	24.91	0	66.6	75	125			S
Silver	4.3	0.25	4.981	0	85.9	75	125			
Uranium	17	5.0	24.91	0	67.3	75	125			S
Zinc	26	2.5	24.91	6.180	81.2	75	125			

Sample ID **1707267-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-26-15-17** Batch ID: **32789** RunNo: **44254**
Prep Date: **7/13/2017** Analysis Date: **7/17/2017** SeqNo: **1397623** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	22	2.4	24.22	1.284	84.1	75	125	0.655	20	
Barium	58	0.097	24.22	34.98	93.8	75	125	2.81	20	
Cadmium	21	0.097	24.22	0	85.7	75	125	0.148	20	
Chromium	23	0.29	24.22	2.173	86.2	75	125	0.423	20	
Copper	24	0.29	24.22	2.714	88.5	75	125	0.742	20	
Lead	21	0.24	24.22	1.798	80.3	75	125	2.22	20	
Manganese	95	0.097	24.22	100.3	-22.9	75	125	9.08	20	S
Molybdenum	21	0.39	24.22	0.2138	87.5	75	125	0.357	20	
Nickel	22	0.48	24.22	2.269	82.7	75	125	0.266	20	
Selenium	17	2.4	24.22	0	68.4	75	125	0.110	20	S
Silver	4.2	0.24	4.843	0	87.4	75	125	1.11	20	
Uranium	17	4.8	24.22	0	70.0	75	125	1.16	20	S
Zinc	26	2.4	24.22	6.180	82.6	75	125	0.799	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1707267-001APS** SampType: **PS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **OLF-SB-26-15-17** Batch ID: **32789** RunNo: **44254**
Prep Date: Analysis Date: **7/17/2017** SeqNo: **1397624** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	120	0.096	24.07	100.3	71.3	80	120			S
Selenium	17	2.4	24.07	0	68.6	80	120			S
Uranium	16	4.8	24.07	0	66.4	80	120			S

Sample ID **MB-33349** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **33349** RunNo: **44972**
Prep Date: **8/14/2017** Analysis Date: **8/15/2017** SeqNo: **1422669** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Selenium	ND	2.5								
Silver	ND	0.25								

Sample ID **LCS-33349** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **33349** RunNo: **44972**
Prep Date: **8/14/2017** Analysis Date: **8/15/2017** SeqNo: **1422670** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	27	2.5	25.00	0	106	80	120			
Barium	25	0.10	25.00	0	102	80	120			
Cadmium	25	0.10	25.00	0	102	80	120			
Chromium	25	0.30	25.00	0	101	80	120			
Lead	25	0.25	25.00	0	102	80	120			
Selenium	25	2.5	25.00	0	101	80	120			
Silver	5.2	0.25	5.000	0	103	80	120			

Sample ID **MB-33349** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **33349** RunNo: **45019**
Prep Date: **8/14/2017** Analysis Date: **8/17/2017** SeqNo: **1424401** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	3.0								
Arsenic	ND	2.5								
Barium	ND	0.10								
Boron	ND	2.0								
Cadmium	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-33349** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **33349** RunNo: **45019**
Prep Date: **8/14/2017** Analysis Date: **8/17/2017** SeqNo: **1424401** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.30								
Cobalt	ND	0.30								
Copper	ND	0.30								
Iron	ND	2.5								
Lead	ND	0.25								
Manganese	ND	0.10								
Molybdenum	ND	0.40								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID **LCS-33349** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **33349** RunNo: **45019**
Prep Date: **8/14/2017** Analysis Date: **8/17/2017** SeqNo: **1424404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	28	3.0	25.00	0	111	80	120			
Arsenic	26	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.7	80	120			
Boron	25	2.0	25.00	0	99.3	80	120			
Cadmium	25	0.10	25.00	0	98.5	80	120			
Chromium	25	0.30	25.00	0	98.4	80	120			
Cobalt	23	0.30	25.00	0	93.7	80	120			
Copper	25	0.30	25.00	0	102	80	120			
Iron	25	2.5	25.00	0	101	80	120			
Lead	24	0.25	25.00	0	95.1	80	120			
Manganese	24	0.10	25.00	0	96.8	80	120			
Molybdenum	26	0.40	25.00	0	104	80	120			
Nickel	24	0.50	25.00	0	94.7	80	120			
Selenium	24	2.5	25.00	0	96.2	80	120			
Silver	5.1	0.25	5.000	0	102	80	120			
Uranium	25	5.0	25.00	0	98.4	80	120			
Zinc	24	2.5	25.00	0	94.7	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB**	SampType: **MBLK**	TestCode: **SM 4500 NH3: Ammonia**			
Client ID: **PBW**	Batch ID: **R44311**	RunNo: **44311**			
Prep Date:	Analysis Date: **7/18/2017**	SeqNo: **1399289**	Units: **mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **SM 4500 NH3: Ammonia**			
Client ID: **LCSW**	Batch ID: **R44311**	RunNo: **44311**			
Prep Date:	Analysis Date: **7/18/2017**	SeqNo: **1399290**	Units: **mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB** SampType: **MBLK** TestCode: **Ammonia as N**
Client ID: **PBS** Batch ID: **R44380** RunNo: **44380**
Prep Date: Analysis Date: **7/20/2017** SeqNo: **1402822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	25								

Sample ID **LCS** SampType: **LCS** TestCode: **Ammonia as N**
Client ID: **LCSS** Batch ID: **R44380** RunNo: **44380**
Prep Date: Analysis Date: **7/20/2017** SeqNo: **1402823** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	520	25	500.0	0	104	80	120			

Sample ID **1707267-001AMS** SampType: **MS** TestCode: **Ammonia as N**
Client ID: **OLF-SB-26-15-17** Batch ID: **R44380** RunNo: **44380**
Prep Date: Analysis Date: **7/20/2017** SeqNo: **1402826** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	550	25	500.0	77.00	95.2	75	125			

Sample ID **1707267-001AMSD** SampType: **MSD** TestCode: **Ammonia as N**
Client ID: **OLF-SB-26-15-17** Batch ID: **R44380** RunNo: **44380**
Prep Date: Analysis Date: **7/20/2017** SeqNo: **1402827** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	550	25	500.0	77.00	95.2	75	125	0	20	

Sample ID **MB** SampType: **MBLK** TestCode: **Ammonia as N**
Client ID: **PBS** Batch ID: **R44793** RunNo: **44793**
Prep Date: Analysis Date: **8/8/2017** SeqNo: **1416194** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	25								

Sample ID **LCS** SampType: **LCS** TestCode: **Ammonia as N**
Client ID: **LCSS** Batch ID: **R44793** RunNo: **44793**
Prep Date: Analysis Date: **8/8/2017** SeqNo: **1416195** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	500	25	500.0	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **1707267-008CMS** SampType: **MS** TestCode: **Ammonia as N**
Client ID: **OLF-SB-27-35-37** Batch ID: **R44793** RunNo: **44793**
Prep Date: Analysis Date: **8/8/2017** SeqNo: **1416197** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	500	25	500.0	0	101	75	125			H

Sample ID **1707267-008CMSD** SampType: **MSD** TestCode: **Ammonia as N**
Client ID: **OLF-SB-27-35-37** Batch ID: **R44793** RunNo: **44793**
Prep Date: Analysis Date: **8/8/2017** SeqNo: **1416198** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	500	25	500.0	0	101	75	125	0	20	H

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32765** SampType: **MBLK** TestCode: **Method 4500-N-org C: TKN**
Client ID: **PBS** Batch ID: **32765** RunNo: **44226**
Prep Date: **7/12/2017** Analysis Date: **7/13/2017** SeqNo: **1396152** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	ND	50								

Sample ID **LCS-32765** SampType: **LCS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **LCSS** Batch ID: **32765** RunNo: **44226**
Prep Date: **7/12/2017** Analysis Date: **7/13/2017** SeqNo: **1396153** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	1000	0	102	80	120			

Sample ID **MB-33397** SampType: **MBLK** TestCode: **Method 4500-N-org C: TKN**
Client ID: **PBS** Batch ID: **33397** RunNo: **45004**
Prep Date: **8/16/2017** Analysis Date: **8/16/2017** SeqNo: **1423862** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	ND	50								

Sample ID **LCS-33397** SampType: **LCS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **LCSS** Batch ID: **33397** RunNo: **45004**
Prep Date: **8/16/2017** Analysis Date: **8/16/2017** SeqNo: **1423863** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	980	50	1000	0	98.0	80	120			

Sample ID **1707267-008CMSD** SampType: **MSD** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-27-35-37** Batch ID: **33397** RunNo: **45004**
Prep Date: **8/16/2017** Analysis Date: **8/16/2017** SeqNo: **1423865** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	49	980.4	0	102	75	125	0	20	H

Sample ID **1707267-008CMS** SampType: **MS** TestCode: **Method 4500-N-org C: TKN**
Client ID: **OLF-SB-27-35-37** Batch ID: **33397** RunNo: **45004**
Prep Date: **8/16/2017** Analysis Date: **8/16/2017** SeqNo: **1423866** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Total Kjeldahl	1000	50	990.1	0	102	75	125			H

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1707267**
22-Aug-17

Client: Intera, Inc.
Project: Frank Ortiz Landfill Waste Characterization

Sample ID **MB-32888** SampType: **MBLK** TestCode: **SM 4500 Norg C: TKN**
Client ID: **PBW** Batch ID: **32888** RunNo: **44371**
Prep Date: **7/19/2017** Analysis Date: **7/20/2017** SeqNo: **1402287** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID **LCS-32888** SampType: **LCS** TestCode: **SM 4500 Norg C: TKN**
Client ID: **LCSW** Batch ID: **32888** RunNo: **44371**
Prep Date: **7/19/2017** Analysis Date: **7/20/2017** SeqNo: **1402288** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	105	80	120			

Sample ID **1707267-006CMS** SampType: **MS** TestCode: **SM 4500 Norg C: TKN**
Client ID: **OLF-ER** Batch ID: **32888** RunNo: **44371**
Prep Date: **7/19/2017** Analysis Date: **7/20/2017** SeqNo: **1402291** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	105	75	125			

Sample ID **1707267-006CMSD** SampType: **MSD** TestCode: **SM 4500 Norg C: TKN**
Client ID: **OLF-ER** Batch ID: **32888** RunNo: **44371**
Prep Date: **7/19/2017** Analysis Date: **7/20/2017** SeqNo: **1402292** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	104	75	125	1.34	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: INT Work Order Number: 1707267 RcptNo: 1

Received By: **Sophia Campuzano** 7/7/2017 8:30:00 AM

Completed By: **Sophia Campuzano** 7/7/2017 9:58:43 AM

Reviewed By: SRC 07/10/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good	Not Present			

Chain-of-Custody Record

Client: INTERA Inc.
Joe Tracy
Mailing Address: 6000 Uptown Blvd NE
Ste 220 ABQ 87110
Phone #: 505 246 1600
email or Fax#: jtracy@intera.com
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☑ EDD (Type) excel

Turn-Around Time:
☑ Standard ☐ Rush
Project Name: Frank Ortiz Landfill Waste Characterization
Project #: COSFE. COOL. ORTIZ
Project Manager: Joe Tracy
Sampler: AKA
On Ice: ☒ Yes ☐ No
Sample Temperature: 5.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1707267	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals + Attached List	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	PCBs 8082 SIM	Hg 7470/7471/245.2	Nitrate/Nitrite 300	TKN/Ammonia 4500	Air Bubbles (Y or N)
7/5/17	1330	Soil	OLF-SB-26-15-17	3x jar 2x MeOH	n/a MeOH	-001						X	X			X	X	X	X	X	X	
7/5/17	1340	Soil	OLF-SB-126-15-17	3x jar 2x MeOH	n/a MeOH	-002						X	X			X	X	X	X	X	X	
7/5/17	1425	Soil	OLF-SB-26-40-41	3x jar 2x MeOH	n/a MeOH	-003						X	X			X	X	X	X	X	X	
7/6/17	1100	Soil	OLF-SB-27-18-19	3x jar 2x MeOH	n/a MeOH	-004						X	X			X	X	X	X	X	X	
7/6/17	1115	AQ	OLF-FB	2x Amber, 3x VOA Rex 3	n/a HCl H2SO4, HNO3 n/a	-005						X	X			X	X	X	X	X	X	
7/6/17	1320	AQ	OLF-ER	2x Amber, 3x VOA Rex 3	n/a HCl H2SO4, HNO3 n/a	-006						X	X			X	X	X	X	X	X	
7/6/17	—	—	Trip Blank	2x VOA		-007																
07/06/17	1200	Soil	OLF-SB-27-35-37	3x 4oz 2x MeOH		-008						X	X			X	X	X	X	X	X	

K 08/04/17

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/7/17	8:10	[signature]	[signature]	07/07/17	0830
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: cc: aarrossa@intera.com

Do not Analyze OLF SB-27-35-51' at this hold / K 08/03/17

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Table 2a (continued)
Soil Analytes, Regulatory Standards, and PRRLs
Waste and Vadose Zone Characterization, Former Frank Ortiz Landfill
Santa Fe, Santa Fe County, New Mexico

Chemical	Residential Soil SSL (mg/kg)[1]	Industrial/ Occupational Soil SSL (mg/kg)	Construction Worker Soil SSL (mg/kg)	DAF 1 (mg/kg)	DAF 20 (mg/kg)	MDL (mg/kg)	PRRL (mg/kg)	Source of PRRL	NM-GS (mg/L)
2,4,6-Trichlorophenol	6.16E+01	9.16E+02	2.69E+02	3.37E-02	6.74E-01	0.16	0.16	DAF 20	NA
Metals (EPA Method 6010)									
Aluminum	7.80E+04	1.29E+06	4.14E+04	2.99E+04	5.97E+05	0.21	0.21	DAF 20	5
Arsenic	4.25E+00	2.15E+01	5.74E+01	1.50E-02	2.99E-01	0.89	0.89	DAF 20	0.1
Barium	1.56E+04	2.55E+05	4.39E+03	1.35E+02	2.70E+03	0.071	0.071	DAF 20	1
Boron	1.56E+04	2.59E+05	5.14E+04	1.25E+01	2.51E+02	0.19	0.19	DAF 20	0.75
Cobalt	NA	NA	NA	NA	NA	0.11	0.11	MDL	0.05
Cadmium	7.05E+01	1.11E+03	7.21E+01	4.69E-01	9.39E+00	0.063	0.063	DAF 20	0.01
Chromium (Total)	9.66E+01	5.05E+02	1.34E+02	1.01E+04	2.01E+05	0.094	0.094	DAF 20	0.05
Copper	3.13E+03	5.19E+04	1.42E+04	2.78E+01	5.56E+02	0.12	0.12	DAF 20	1
Iron	5.48E+04	9.08E+05	2.48E+05	3.48E+02	6.96E+03	0.75	0.75	DAF 20	1
Lead	4.00E+02	8.00E+02	8.00E+02	NA	NA	0.17	0.17	MDL	0.05
Mercury (methyl)	7.82E+02	1.30E+02	3.54E+01	4.45E-04	8.89E-03	0.10	0.10	DAF 20	0.002
Manganese	1.05E+04	1.60E+05	4.64E+02	1.31E+02	2.63E+03	0.054	0.054	DAF 20	0.2
Molybdenum	3.91E+02	6.49E+03	1.77E+03	1.99E+00	3.98E+01	0.12	0.12	DAF 20	1
Nickel	1.56E+03	2.57E+04	7.53E+02	2.42E+01	4.85E+02	0.15	0.15	DAF 20	0.2
Selenium	3.91E+02	6.49E+03	1.75E+03	5.11E-01	1.02E+01	1.8	1.8	DAF 20	0.05
Silver	3.91E+02	6.49E+03	1.77E+03	6.88E-01	1.38E+01	0.063	0.063	DAF 20	0.05
Uranium	2.34E+02	3.88E+03	2.77E+02	2.67E+01	5.33E+02	1.1	1.1	DAF 20	0.03
Zinc	2.35E+04	3.89E+05	1.06E+05	3.71E+02	7.41E+03	0.35	0.35	DAF 20	10

APPENDIX F

Laboratory Analytical Reports - Soil Vapor Sample Results

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 31, 2017

Joseph Tracy
Intera, Inc.
6000 Uptown Boulevard, NE Suite 220
Albuquerque, NM 87110
TEL: (505) 246-1600
FAX (505) 246-2600

RE: City of Santa Fe Ortiz Landfill OrderNo.: 1707780

Dear Joseph Tracy:

Hall Environmental Analysis Laboratory received 10 sample(s) on 7/14/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

eurofins | Air Toxics

7/31/2017
Mr. Andy Freeman
Hall Environmental Analysis Laboratory
4901 Hawkins NE
Suite D
Albuquerque NM 87109

Project Name:
Project #:
Workorder #: 1707252

Dear Mr. Andy Freeman

The following report includes the data for the above referenced project for sample(s) received on 7/18/2017 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brian Whittaker

Brian Whittaker
Project Manager

eurofins | Air Toxics

WORK ORDER #: 1707252

Work Order Summary

CLIENT:	Mr. Andy Freeman Hall Environmental Analysis Laboratory 4901 Hawkins NE Suite D Albuquerque, NM 87109	**BILL TO:**	Mr. Andy Freeman Hall Environmental Analysis Laboratory 4901 Hawkins NE Suite D Albuquerque, NM 87109
PHONE:	505-345-3975	**P.O. #**	
FAX:	505-345-4107	**PROJECT #**	
DATE RECEIVED:	07/18/2017	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	07/29/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-01-S	Modified TO-15	8.8 "Hg	5.1 psi
02A	SV-01-I	Modified TO-15	7.1 "Hg	5.1 psi
03A	SV-01-D	Modified TO-15	11.4 "Hg	5.1 psi
04A	SV-04-I	Modified TO-15	10.2 "Hg	5 psi
05A	SV-02-S	Modified TO-15	10 "Hg	5 psi
06A	SV-02-I	Modified TO-15	14.3 "Hg	5 psi
07A	SV-02-D	Modified TO-15	6.9 "Hg	5 psi
08A	SV-03-S	Modified TO-15	9.4 "Hg	4.9 psi
08B	SV-03-S	Modified TO-15	9.4 "Hg	4.9 psi
09A	SV-03-I	Modified TO-15	7.1 "Hg	4.9 psi
10A	SV-03-D	Modified TO-15	8 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
11C	Lab Blank	Modified TO-15	NA	NA
11D	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
12C	CCV	Modified TO-15	NA	NA
12D	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13AA	LCSD	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13BB	LCSD	Modified TO-15	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1707252

Work Order Summary

CLIENT:	Mr. Andy Freeman Hall Environmental Analysis Laboratory 4901 Hawkins NE Suite D Albuquerque, NM 87109	**BILL TO:**	Mr. Andy Freeman Hall Environmental Analysis Laboratory 4901 Hawkins NE Suite D Albuquerque, NM 87109
PHONE:	505-345-3975	**P.O. #**	
FAX:	505-345-4107	**PROJECT #**	
DATE RECEIVED:	07/18/2017	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	07/29/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
13C	LCS	Modified TO-15	NA	NA
13CC	LCSD	Modified TO-15	NA	NA
13D	LCS	Modified TO-15	NA	NA
13DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 07/29/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Hall Environmental Analysis Laboratory
Workorder# 1707252

Ten 6 Liter Summa Canister (100% SIM Ambient) samples were received on July 18, 2017. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for sample SV-03-S in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Samples SV-01-S, SV-01-I, SV-01-D, SV-04-I, SV-02-S, SV-02-I, SV-02-D, SV-03-I and SV-03-D

were transferred from SIM/Low Level analysis to full scan TO-15 due to high levels of target/non-target compounds.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on samples SV-02-I and SV-03-S due to the presence of high level target species.

Dilution was performed on samples SV-01-S, SV-01-I, SV-01-D, SV-04-I, SV-02-S, SV-02-D, SV-03-I and SV-03-D due to matrix interference.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-01-S		
Lab ID:	1707252-01A	**Date/Time Analyzed:**	7/25/17 11:34 PM
Date/Time Collected:	7/13/17 01:15 PM	**Dilution Factor:**	9.53
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072521

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	4.4	21	26	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	5.0	26	33	Not Detected
1,1,2-Trichloroethane	79-00-5	8.0	21	26	Not Detected
1,1-Dichloroethane	75-34-3	4.9	15	19	Not Detected
1,1-Dichloroethene	75-35-4	8.1	15	19	12 J
1,2,4-Trichlorobenzene	120-82-1	13	56	140	Not Detected
1,2,4-Trimethylbenzene	95-63-6	2.6	19	23	740
1,2-Dichlorobenzene	95-50-1	3.9	23	29	76
1,2-Dichloroethane	107-06-2	6.0	15	19	Not Detected
1,2-Dichloropropane	78-87-5	5.1	18	22	32
1,3-Butadiene	106-99-0	3.3	8.4	10	Not Detected
1,4-Dichlorobenzene	106-46-7	4.2	23	29	430
4-Methyl-2-pentanone	108-10-1	6.2	16	20	Not Detected
Benzene	71-43-2	3.0	12	15	190
Carbon Tetrachloride	56-23-5	7.1	24	30	Not Detected
Chlorobenzene	108-90-7	4.0	18	22	56
Chloroform	67-66-3	3.2	19	23	Not Detected
Cumene	98-82-8	3.1	19	23	140
Ethyl Benzene	100-41-4	6.5	16	21	320
Hexane	110-54-3	4.8	13	17	390
m,p-Xylene	108-38-3	5.9	16	21	100
Methylcyclohexane	108-87-2	8.6	D	76	730
Methylene Chloride	75-09-2	9.9	26	160	25 J
Styrene	100-42-5	3.4	16	20	13 J

EPA METHOD TO-15 GC/MS FULL SCAN

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Client ID:	SV-01-S		
Lab ID:	1707252-01A	**Date/Time Analyzed:**	7/25/17 11:34 PM
Date/Time Collected:	7/13/17 01:15 PM	**Dilution Factor:**	9.53
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072521

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	10	26	32	55
Toluene	108-88-3	3.3	14	18	160
trans-1,2-Dichloroethene	156-60-5	7.4	15	19	78
Trichloroethene	79-01-6	8.2	20	26	95
Vinyl Chloride	75-01-4	3.4	9.7	12	1800

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	94
Toluene-d8	2037-26-5	70-130	99

EPA METHOD TO-15 GC/MS FULL SCAN

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Client ID:	SV-01-I		
Lab ID:	1707252-02A	**Date/Time Analyzed:**	7/22/17 01:33 AM
Date/Time Collected:	7/13/17 01:56 PM	**Dilution Factor:**	23.5
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072127

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	11	51	64	12 J
1,1,2,2-Tetrachloroethane	79-34-5	12	64	81	Not Detected
1,1,2-Trichloroethane	79-00-5	20	51	64	Not Detected
1,1-Dichloroethane	75-34-3	12	38	48	Not Detected
1,1-Dichloroethene	75-35-4	20	37	46	Not Detected
1,2,4-Trichlorobenzene	120-82-1	31	140	350	Not Detected
1,2,4-Trimethylbenzene	95-63-6	6.5	46	58	360
1,2-Dichlorobenzene	95-50-1	9.6	56	71	70 J
1,2-Dichloroethane	107-06-2	15	38	48	Not Detected
1,2-Dichloropropane	78-87-5	12	43	54	34 J
1,3-Butadiene	106-99-0	8.2	21	26	Not Detected
1,4-Dichlorobenzene	106-46-7	10	56	71	490
4-Methyl-2-pentanone	108-10-1	15	38	48	39 J
Benzene	71-43-2	7.3	30	38	100
Carbon Tetrachloride	56-23-5	18	59	74	Not Detected
Chlorobenzene	108-90-7	10	43	54	29 J
Chloroform	67-66-3	7.8	46	57	25 J
Cumene	98-82-8	7.7	46	58	68
Ethyl Benzene	100-41-4	16	41	51	150
Hexane	110-54-3	12	33	41	200
m,p-Xylene	108-38-3	14	41	51	83
Methylcyclohexane	108-87-2	21	D	190	330
Methylene Chloride	75-09-2	24	65	410	49 J
Styrene	100-42-5	8.3	40	50	13 J

EPA METHOD TO-15 GC/MS FULL SCAN

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Client ID:	SV-01-I		
Lab ID:	1707252-02A	**Date/Time Analyzed:**	7/22/17 01:33 AM
Date/Time Collected:	7/13/17 01:56 PM	**Dilution Factor:**	23.5
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072127

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	25	64	80	91
Toluene	108-88-3	8.0	35	44	74
trans-1,2-Dichloroethene	156-60-5	18	37	46	49
Trichloroethene	79-01-6	20	50	63	130
Vinyl Chloride	75-01-4	8.5	24	30	1200

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	101
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	102

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-01-D		
Lab ID:	1707252-03A	**Date/Time Analyzed:**	7/22/17 01:09 AM
Date/Time Collected:	7/13/17 02:42 PM	**Dilution Factor:**	14.5
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072126

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	6.7	32	40	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	7.7	40	50	Not Detected
1,1,2-Trichloroethane	79-00-5	12	32	40	Not Detected
1,1-Dichloroethane	75-34-3	7.5	23	29	Not Detected
1,1-Dichloroethene	75-35-4	12	23	29	Not Detected
1,2,4-Trichlorobenzene	120-82-1	19	86	220	Not Detected
1,2,4-Trimethylbenzene	95-63-6	4.0	28	36	180
1,2-Dichlorobenzene	95-50-1	5.9	35	44	31 J
1,2-Dichloroethane	107-06-2	9.1	23	29	20 J
1,2-Dichloropropane	78-87-5	7.7	27	34	30 J
1,3-Butadiene	106-99-0	5.1	13	16	Not Detected
1,4-Dichlorobenzene	106-46-7	6.3	35	44	250
4-Methyl-2-pentanone	108-10-1	9.5	24	30	95
Benzene	71-43-2	4.5	18	23	140
Carbon Tetrachloride	56-23-5	11	36	46	Not Detected
Chlorobenzene	108-90-7	6.2	27	33	32 J
Chloroform	67-66-3	4.8	28	35	Not Detected
Cumene	98-82-8	4.8	28	36	59
Ethyl Benzene	100-41-4	9.9	25	31	160
Hexane	110-54-3	7.3	20	26	250
m,p-Xylene	108-38-3	9.0	25	31	78
Methylcyclohexane	108-87-2	13	D	120	450
Methylene Chloride	75-09-2	15	40	250	63 J
Styrene	100-42-5	5.1	25	31	22 J

EPA METHOD TO-15 GC/MS FULL SCAN

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Client ID:	SV-01-D		
Lab ID:	1707252-03A	**Date/Time Analyzed:**	7/22/17 01:09 AM
Date/Time Collected:	7/13/17 02:42 PM	**Dilution Factor:**	14.5
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072126

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	16	39	49	100
Toluene	108-88-3	5.0	22	27	80
trans-1,2-Dichloroethene	156-60-5	11	23	29	86
Trichloroethene	79-01-6	12	31	39	180
Vinyl Chloride	75-01-4	5.2	15	18	1800

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	104
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	101

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-04-I		
Lab ID:	1707252-04A	**Date/Time Analyzed:**	7/22/17 12:45 AM
Date/Time Collected:	7/13/17 11:15 AM	**Dilution Factor:**	10.2
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072125

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	4.7	22	28	8.8 J
1,1,2,2-Tetrachloroethane	79-34-5	5.4	28	35	Not Detected
1,1,2-Trichloroethane	79-00-5	8.6	22	28	Not Detected
1,1-Dichloroethane	75-34-3	5.3	16	21	Not Detected
1,1-Dichloroethene	75-35-4	8.7	16	20	Not Detected
1,2,4-Trichlorobenzene	120-82-1	14	60	150	Not Detected
1,2,4-Trimethylbenzene	95-63-6	2.8	20	25	200
1,2-Dichlorobenzene	95-50-1	4.1	24	31	39
1,2-Dichloroethane	107-06-2	6.4	16	21	Not Detected
1,2-Dichloropropane	78-87-5	5.4	19	24	23 J
1,3-Butadiene	106-99-0	3.6	9.0	11	Not Detected
1,4-Dichlorobenzene	106-46-7	4.4	24	31	250
4-Methyl-2-pentanone	108-10-1	6.7	17	21	32
Benzene	71-43-2	3.2	13	16	91
Carbon Tetrachloride	56-23-5	7.6	26	32	Not Detected
Chlorobenzene	108-90-7	4.3	19	23	23 J
Chloroform	67-66-3	3.4	20	25	30
Cumene	98-82-8	3.4	20	25	39
Ethyl Benzene	100-41-4	6.9	18	22	120
Hexane	110-54-3	5.1	14	18	180
m,p-Xylene	108-38-3	6.3	18	22	62
Methylcyclohexane	108-87-2	9.2	D	82	330
Methylene Chloride	75-09-2	11	28	180	45 J
Styrene	100-42-5	3.6	17	22	11 J

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-04-I		
Lab ID:	1707252-04A	**Date/Time Analyzed:**	7/22/17 12:45 AM
Date/Time Collected:	7/13/17 11:15 AM	**Dilution Factor:**	10.2
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072125

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	11	28	34	77
Toluene	108-88-3	3.5	15	19	58
trans-1,2-Dichloroethene	156-60-5	7.9	16	20	61
Trichloroethene	79-01-6	8.8	22	27	120
Vinyl Chloride	75-01-4	3.7	10	13	1300

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	97
Toluene-d8	2037-26-5	70-130	101

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-02-S		
Lab ID:	1707252-05A	**Date/Time Analyzed:**	7/21/17 06:50 PM
Date/Time Collected:	7/13/17 03:45 PM	**Dilution Factor:**	26.8
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda1 / a072119

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	12	58	73	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	14	74	92	Not Detected
1,1,2-Trichloroethane	79-00-5	23	58	73	Not Detected
1,1-Dichloroethane	75-34-3	14	43	54	Not Detected
1,1-Dichloroethene	75-35-4	23	42	53	36 J
1,2,4-Trichlorobenzene	120-82-1	36	160	400	Not Detected
1,2,4-Trimethylbenzene	95-63-6	7.4	53	66	640
1,2-Dichlorobenzene	95-50-1	11	64	80	Not Detected
1,2-Dichloroethane	107-06-2	17	43	54	Not Detected
1,2-Dichloropropane	78-87-5	14	50	62	Not Detected
1,3-Butadiene	106-99-0	9.4	24	30	Not Detected
1,4-Dichlorobenzene	106-46-7	12	64	80	310
4-Methyl-2-pentanone	108-10-1	18	44	55	Not Detected
Benzene	71-43-2	8.4	34	43	410
Carbon Tetrachloride	56-23-5	20	67	84	Not Detected
Chlorobenzene	108-90-7	11	49	62	Not Detected
Chloroform	67-66-3	8.9	52	65	Not Detected
Cumene	98-82-8	8.8	53	66	200
Ethyl Benzene	100-41-4	18	46	58	930
Hexane	110-54-3	13	38	47	240
m,p-Xylene	108-38-3	16	46	58	480
Methylcyclohexane	108-87-2	24	D	220	390
Methylene Chloride	75-09-2	28	74	460	54 J
Styrene	100-42-5	9.5	46	57	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-02-S		
Lab ID:	1707252-05A	**Date/Time Analyzed:**	7/21/17 06:50 PM
Date/Time Collected:	7/13/17 03:45 PM	**Dilution Factor:**	26.8
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072119

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	29	73	91	33 J
Toluene	108-88-3	9.2	40	50	340
trans-1,2-Dichloroethene	156-60-5	21	42	53	250
Trichloroethene	79-01-6	23	58	72	67 J
Vinyl Chloride	75-01-4	9.7	27	34	1400

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	100

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-02-I		
Lab ID:	1707252-06A	**Date/Time Analyzed:**	7/21/17 05:25 PM
Date/Time Collected:	7/13/17 04:25 PM	**Dilution Factor:**	12.8
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072116

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	5.9	28	35	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	6.8	35	44	Not Detected
1,1,2-Trichloroethane	79-00-5	11	28	35	Not Detected
1,1-Dichloroethane	75-34-3	6.6	21	26	13 J
1,1-Dichloroethene	75-35-4	11	20	25	13 J
1,2,4-Trichlorobenzene	120-82-1	17	76	190	Not Detected
1,2,4-Trimethylbenzene	95-63-6	3.5	25	31	120
1,2-Dichlorobenzene	95-50-1	5.2	31	38	Not Detected
1,2-Dichloroethane	107-06-2	8.1	21	26	Not Detected
1,2-Dichloropropane	78-87-5	6.8	24	30	30
1,3-Butadiene	106-99-0	4.5	11	14	Not Detected
1,4-Dichlorobenzene	106-46-7	5.6	31	38	43
4-Methyl-2-pentanone	108-10-1	8.4	21	26	Not Detected
Benzene	71-43-2	4.0	16	20	140
Carbon Tetrachloride	56-23-5	9.6	32	40	Not Detected
Chlorobenzene	108-90-7	5.4	24	29	Not Detected
Chloroform	67-66-3	4.2	25	31	Not Detected
Cumene	98-82-8	4.2	25	31	28 J
Ethyl Benzene	100-41-4	8.7	22	28	38
Hexane	110-54-3	6.4	18	22	290
m,p-Xylene	108-38-3	7.9	22	28	36
Methylcyclohexane	108-87-2	12	D	100	370
Methylene Chloride	75-09-2	13	36	220	520
Styrene	100-42-5	4.5	22	27	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-02-I		
Lab ID:	1707252-06A	**Date/Time Analyzed:**	7/21/17 05:25 PM
Date/Time Collected:	7/13/17 04:25 PM	**Dilution Factor:**	12.8
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072116

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	14	35	43	42 J
Toluene	108-88-3	4.4	19	24	42
trans-1,2-Dichloroethene	156-60-5	9.9	20	25	130
Trichloroethene	79-01-6	11	28	34	110
Vinyl Chloride	75-01-4	4.6	13	16	3000

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	102
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	103

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-02-D		
Lab ID:	1707252-07A	**Date/Time Analyzed:**	7/21/17 05:01 PM
Date/Time Collected:	7/14/17 12:40 PM	**Dilution Factor:**	23.2
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072115

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	11	51	63	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	12	64	80	Not Detected
1,1,2-Trichloroethane	79-00-5	20	51	63	Not Detected
1,1-Dichloroethane	75-34-3	12	38	47	27 J
1,1-Dichloroethene	75-35-4	20	37	46	Not Detected
1,2,4-Trichlorobenzene	120-82-1	31	140	340	Not Detected
1,2,4-Trimethylbenzene	95-63-6	6.4	46	57	190
1,2-Dichlorobenzene	95-50-1	9.4	56	70	Not Detected
1,2-Dichloroethane	107-06-2	15	38	47	Not Detected
1,2-Dichloropropane	78-87-5	12	43	54	54
1,3-Butadiene	106-99-0	8.1	20	26	Not Detected
1,4-Dichlorobenzene	106-46-7	10	56	70	84
4-Methyl-2-pentanone	108-10-1	15	38	48	Not Detected
Benzene	71-43-2	7.2	30	37	200
Carbon Tetrachloride	56-23-5	17	58	73	Not Detected
Chlorobenzene	108-90-7	9.8	43	53	Not Detected
Chloroform	67-66-3	7.7	45	57	Not Detected
Cumene	98-82-8	7.6	46	57	46 J
Ethyl Benzene	100-41-4	16	40	50	25 J
Hexane	110-54-3	12	33	41	490
m,p-Xylene	108-38-3	14	40	50	61
Methylcyclohexane	108-87-2	21	D	190	610
Methylene Chloride	75-09-2	24	64	400	830
Styrene	100-42-5	8.2	40	49	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-02-D		
Lab ID:	1707252-07A	**Date/Time Analyzed:**	7/21/17 05:01 PM
Date/Time Collected:	7/14/17 12:40 PM	**Dilution Factor:**	23.2
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072115

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	25	63	79	190
Toluene	108-88-3	7.9	35	44	65
trans-1,2-Dichloroethene	156-60-5	18	37	46	190
Trichloroethene	79-01-6	20	50	62	210
Vinyl Chloride	75-01-4	8.4	24	30	4100

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	94
Toluene-d8	2037-26-5	70-130	103

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	SV-03-S		
Lab ID:	1707252-08A	**Date/Time Analyzed:**	7/21/17 12:15 PM
Date/Time Collected:	7/13/17 01:20 PM	**Dilution Factor:**	4.85
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21072109

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	75-35-4	0.25	0.77	1.9	8.2
1,2,4-Trichlorobenzene	120-82-1	1.7	5.8	18	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.49	0.95	2.4	160
1,2-Dichlorobenzene	95-50-1	0.50	1.2	2.9	4.1
1,2-Dichloropropane	78-87-5	0.22	0.90	2.2	2.2
1,3-Butadiene	106-99-0	0.17	0.43	1.1	5.7
1,4-Dichlorobenzene	106-46-7	0.59	1.2	2.9	87
4-Methyl-2-pentanone	108-10-1	0.74	0.79	2.0	Not Detected
Carbon Tetrachloride	56-23-5	0.17	1.2	3.0	Not Detected
Chlorobenzene	108-90-7	0.23	0.89	2.2	9.6
Chloroform	67-66-3	0.21	0.95	2.4	17
Cumene	98-82-8	0.52	0.95	2.4	Not Detected
Hexane	110-54-3	0.36	0.68	1.7	120
Methylcyclohexane	108-87-2	0.14	D	9.7	190
Methylene Chloride	75-09-2	0.29	0.67	3.4	20
Styrene	100-42-5	0.33	0.83	2.1	13
trans-1,2-Dichloroethene	156-60-5	0.21	0.77	1.9	42

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	117
4-Bromofluorobenzene	460-00-4	70-130	120
Toluene-d8	2037-26-5	70-130	108

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	SV-03-S		
Lab ID:	1707252-08B	**Date/Time Analyzed:**	7/21/17 12:15 PM
Date/Time Collected:	7/13/17 01:20 PM	**Dilution Factor:**	4.85
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21 / 21072109sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.011	0.13	0.53	0.24 J
1,1,2,2-Tetrachloroethane	79-34-5	0.029	0.17	0.66	Not Detected
1,1,2-Trichloroethane	79-00-5	0.013	0.13	0.53	Not Detected
1,1-Dichloroethane	75-34-3	0.016	0.098	0.39	2.0
1,2-Dichloroethane	107-06-2	0.013	0.098	0.39	0.50
Benzene	71-43-2	0.19	0.19	0.77	76
Ethyl Benzene	100-41-4	0.011	0.10	0.42	110
m,p-Xylene	108-38-3	0.027	0.10	0.84	78
Tetrachloroethene	127-18-4	0.019	0.16	0.66	27
Toluene	108-88-3	0.093	0.093	0.36	50
Trichloroethene	79-01-6	0.15	0.15	0.52	19
Vinyl Chloride	75-01-4	0.011	0.062	0.12	140

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	113
4-Bromofluorobenzene	460-00-4	70-130	120
Toluene-d8	2037-26-5	70-130	108

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-03-I		
Lab ID:	1707252-09A	**Date/Time Analyzed:**	7/21/17 06:26 PM
Date/Time Collected:	7/13/17 02:15 PM	**Dilution Factor:**	6.99
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072118

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	3.2	15	19	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	3.7	19	24	Not Detected
1,1,2-Trichloroethane	79-00-5	5.9	15	19	Not Detected
1,1-Dichloroethane	75-34-3	3.6	11	14	Not Detected
1,1-Dichloroethene	75-35-4	6.0	11	14	14
1,2,4-Trichlorobenzene	120-82-1	9.3	42	100	Not Detected
1,2,4-Trimethylbenzene	95-63-6	1.9	14	17	27
1,2-Dichlorobenzene	95-50-1	2.8	17	21	7.7 J
1,2-Dichloroethane	107-06-2	4.4	11	14	Not Detected
1,2-Dichloropropane	78-87-5	3.7	13	16	Not Detected
1,3-Butadiene	106-99-0	2.4	6.2	7.7	Not Detected
1,4-Dichlorobenzene	106-46-7	3.0	17	21	100
4-Methyl-2-pentanone	108-10-1	4.6	11	14	Not Detected
Benzene	71-43-2	2.2	8.9	11	110
Carbon Tetrachloride	56-23-5	5.2	18	22	Not Detected
Chlorobenzene	108-90-7	3.0	13	16	10 J
Chloroform	67-66-3	2.3	14	17	Not Detected
Cumene	98-82-8	2.3	14	17	20
Ethyl Benzene	100-41-4	4.8	12	15	43
Hexane	110-54-3	3.5	9.8	12	110
m,p-Xylene	108-38-3	4.3	12	15	31
Methylcyclohexane	108-87-2	6.3	D	56	230
Methylene Chloride	75-09-2	7.3	19	120	17 J
Styrene	100-42-5	2.5	12	15	4.5 J

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-03-I		
Lab ID:	1707252-09A	**Date/Time Analyzed:**	7/21/17 06:26 PM
Date/Time Collected:	7/13/17 02:15 PM	**Dilution Factor:**	6.99
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072118

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	7.5	19	24	13 J
Toluene	108-88-3	2.4	10	13	22
trans-1,2-Dichloroethene	156-60-5	5.4	11	14	65
Trichloroethene	79-01-6	6.0	15	19	31
Vinyl Chloride	75-01-4	2.5	7.1	8.9	230

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	98
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	100

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-03-D		
Lab ID:	1707252-10A	**Date/Time Analyzed:**	7/21/17 04:13 PM
Date/Time Collected:	7/13/17 03:15 PM	**Dilution Factor:**	3.65
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072113

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	1.7	8.0	10	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	1.9	10	12	Not Detected
1,1,2-Trichloroethane	79-00-5	3.1	8.0	10	Not Detected
1,1-Dichloroethane	75-34-3	1.9	5.9	7.4	3.8 J
1,1-Dichloroethene	75-35-4	3.1	5.8	7.2	13
1,2,4-Trichlorobenzene	120-82-1	4.8	22	54	Not Detected
1,2,4-Trimethylbenzene	95-63-6	1.0	7.2	9.0	42
1,2-Dichlorobenzene	95-50-1	1.5	8.8	11	3.6 J
1,2-Dichloroethane	107-06-2	2.3	5.9	7.4	Not Detected
1,2-Dichloropropane	78-87-5	1.9	6.7	8.4	3.4 J
1,3-Butadiene	106-99-0	1.3	3.2	4.0	Not Detected
1,4-Dichlorobenzene	106-46-7	1.6	8.8	11	83
4-Methyl-2-pentanone	108-10-1	2.4	6.0	7.5	Not Detected
Benzene	71-43-2	1.1	4.7	5.8	97
Carbon Tetrachloride	56-23-5	2.7	9.2	11	Not Detected
Chlorobenzene	108-90-7	1.6	6.7	8.4	Not Detected
Chloroform	67-66-3	1.2	7.1	8.9	7.1 J
Cumene	98-82-8	1.2	7.2	9.0	Not Detected
Ethyl Benzene	100-41-4	2.5	6.3	7.9	50
Hexane	110-54-3	1.8	5.1	6.4	120
m,p-Xylene	108-38-3	2.2	6.3	7.9	41
Methylcyclohexane	108-87-2	3.3	D	29	230
Methylene Chloride	75-09-2	3.8	10	63	24 J
Styrene	100-42-5	1.3	6.2	7.8	6.1 J

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	SV-03-D		
Lab ID:	1707252-10A	**Date/Time Analyzed:**	7/21/17 04:13 PM
Date/Time Collected:	7/13/17 03:15 PM	**Dilution Factor:**	3.65
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msda.i / a072113

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	3.9	9.9	12	24
Toluene	108-88-3	1.2	5.5	6.9	27
trans-1,2-Dichloroethene	156-60-5	2.8	5.8	7.2	59
Trichloroethene	79-01-6	3.1	7.8	9.8	24
Vinyl Chloride	75-01-4	1.3	3.7	4.7	240

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	94
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	Lab Blank		
Lab ID:	1707252-11A	**Date/Time Analyzed:**	7/21/17 10:22 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072106c

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	75-35-4	0.052	0.16	0.40	Not Detected
1,2,4-Trichlorobenzene	120-82-1	0.36	1.2	3.7	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.10	0.20	0.49	Not Detected
1,2-Dichlorobenzene	95-50-1	0.10	0.24	0.60	Not Detected
1,2-Dichloropropane	78-87-5	0.044	0.18	0.46	Not Detected
1,3-Butadiene	106-99-0	0.034	0.088	0.22	Not Detected
1,4-Dichlorobenzene	106-46-7	0.12	0.24	0.60	Not Detected
4-Methyl-2-pentanone	108-10-1	0.15	0.16	0.41	Not Detected
Carbon Tetrachloride	56-23-5	0.035	0.25	0.63	Not Detected
Chlorobenzene	108-90-7	0.048	0.18	0.46	Not Detected
Chloroform	67-66-3	0.043	0.20	0.49	Not Detected
Cumene	98-82-8	0.11	0.20	0.49	Not Detected
Hexane	110-54-3	0.073	0.14	0.35	Not Detected
Methylcyclohexane	108-87-2	0.029	D	2.0	Not Detected
Methylene Chloride	75-09-2	0.061	0.14	0.69	0.075 J
Styrene	100-42-5	0.067	0.17	0.42	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.043	0.16	0.40	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	90
Toluene-d8	2037-26-5	70-130	96

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	Lab Blank		
Lab ID:	1707252-11B	**Date/Time Analyzed:**	7/21/17 10:22 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072106sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0023	0.027	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0059	0.034	0.14	Not Detected
1,1,2-Trichloroethane	79-00-5	0.0028	0.027	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0032	0.020	0.081	Not Detected
1,2-Dichloroethane	107-06-2	0.0026	0.020	0.081	Not Detected
Benzene	71-43-2	0.040	0.040	0.16	Not Detected
Ethyl Benzene	100-41-4	0.0023	0.022	0.087	Not Detected
m,p-Xylene	108-38-3	0.0056	0.022	0.17	Not Detected
Tetrachloroethene	127-18-4	0.0040	0.034	0.14	0.052 J
Toluene	108-88-3	0.019	0.019	0.075	0.020 J
Trichloroethene	79-01-6	0.032	0.032	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0023	0.013	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	107
4-Bromofluorobenzene	460-00-4	70-130	91
Toluene-d8	2037-26-5	70-130	98

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	Lab Blank		
Lab ID:	1707252-11C	**Date/Time Analyzed:**	7/21/17 11:29 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.I / a072106c

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.46	2.2	2.7	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.53	2.7	3.4	Not Detected
1,1,2-Trichloroethane	79-00-5	0.84	2.2	2.7	Not Detected
1,1-Dichloroethane	75-34-3	0.52	1.6	2.0	Not Detected
1,1-Dichloroethene	75-35-4	0.85	1.6	2.0	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.3	5.9	15	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.28	2.0	2.4	Not Detected
1,2-Dichlorobenzene	95-50-1	0.41	2.4	3.0	Not Detected
1,2-Dichloroethane	107-06-2	0.63	1.6	2.0	Not Detected
1,2-Dichloropropane	78-87-5	0.53	1.8	2.3	Not Detected
1,3-Butadiene	106-99-0	0.35	0.88	1.1	Not Detected
1,4-Dichlorobenzene	106-46-7	0.44	2.4	3.0	Not Detected
4-Methyl-2-pentanone	108-10-1	0.66	1.6	2.0	Not Detected
Benzene	71-43-2	0.31	1.3	1.6	Not Detected
Carbon Tetrachloride	56-23-5	0.75	2.5	3.1	Not Detected
Chlorobenzene	108-90-7	0.42	1.8	2.3	Not Detected
Chloroform	67-66-3	0.33	2.0	2.4	Not Detected
Cumene	98-82-8	0.33	2.0	2.4	Not Detected
Ethyl Benzene	100-41-4	0.68	1.7	2.2	Not Detected
Hexane	110-54-3	0.50	1.4	1.8	Not Detected
m,p-Xylene	108-38-3	0.62	1.7	2.2	Not Detected
Methylcyclohexane	108-87-2	0.91	D	8.0	Not Detected
Methylene Chloride	75-09-2	1.0	2.8	17	Not Detected
Styrene	100-42-5	0.35	1.7	2.1	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	Lab Blank		
Lab ID:	1707252-11C	**Date/Time Analyzed:**	7/21/17 11:29 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072106c

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	1.1	2.7	3.4	Not Detected
Toluene	108-88-3	0.34	1.5	1.9	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.77	1.6	2.0	Not Detected
Trichloroethene	79-01-6	0.86	2.1	2.7	Not Detected
Vinyl Chloride	75-01-4	0.36	1.0	1.3	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	102

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	Lab Blank		
Lab ID:	1707252-11D	**Date/Time Analyzed:**	7/25/17 01:45 PM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072507e

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.46	2.2	2.7	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.53	2.7	3.4	Not Detected
1,1,2-Trichloroethane	79-00-5	0.84	2.2	2.7	Not Detected
1,1-Dichloroethane	75-34-3	0.52	1.6	2.0	Not Detected
1,1-Dichloroethene	75-35-4	0.85	1.6	2.0	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.3	5.9	15	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.28	2.0	2.4	Not Detected
1,2-Dichlorobenzene	95-50-1	0.41	2.4	3.0	Not Detected
1,2-Dichloroethane	107-06-2	0.63	1.6	2.0	Not Detected
1,2-Dichloropropane	78-87-5	0.53	1.8	2.3	Not Detected
1,3-Butadiene	106-99-0	0.35	0.88	1.1	Not Detected
1,4-Dichlorobenzene	106-46-7	0.44	2.4	3.0	Not Detected
4-Methyl-2-pentanone	108-10-1	0.66	1.6	2.0	Not Detected
Benzene	71-43-2	0.31	1.3	1.6	Not Detected
Carbon Tetrachloride	56-23-5	0.75	2.5	3.1	Not Detected
Chlorobenzene	108-90-7	0.42	1.8	2.3	Not Detected
Chloroform	67-66-3	0.33	2.0	2.4	Not Detected
Cumene	98-82-8	0.33	2.0	2.4	Not Detected
Ethyl Benzene	100-41-4	0.68	1.7	2.2	Not Detected
Hexane	110-54-3	0.50	1.4	1.8	Not Detected
m,p-Xylene	108-38-3	0.62	1.7	2.2	Not Detected
Methylcyclohexane	108-87-2	0.91	D	8.0	Not Detected
Methylene Chloride	75-09-2	1.0	2.8	17	Not Detected
Styrene	100-42-5	0.35	1.7	2.1	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	Lab Blank		
Lab ID:	1707252-11D	**Date/Time Analyzed:**	7/25/17 01:45 PM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072507e

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	1.1	2.7	3.4	Not Detected
Toluene	108-88-3	0.34	1.5	1.9	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.77	1.6	2.0	Not Detected
Trichloroethene	79-01-6	0.86	2.1	2.7	Not Detected
Vinyl Chloride	75-01-4	0.36	1.0	1.3	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	101
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	CCV		
Lab ID:	1707252-12A	**Date/Time Analyzed:**	7/21/17 07:46 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072102

Compound	CAS#	%Recovery
1,1-Dichloroethene	75-35-4	99
1,2,4-Trichlorobenzene	120-82-1	98
1,2,4-Trimethylbenzene	95-63-6	102
1,2-Dichlorobenzene	95-50-1	88
1,2-Dichloropropane	78-87-5	92
1,3-Butadiene	106-99-0	94
1,4-Dichlorobenzene	106-46-7	89
4-Methyl-2-pentanone	108-10-1	104
Carbon Tetrachloride	56-23-5	107
Chlorobenzene	108-90-7	91
Chloroform	67-66-3	91
Cumene	98-82-8	101
Hexane	110-54-3	101
Methylcyclohexane	108-87-2	98
Methylene Chloride	75-09-2	82
Styrene	100-42-5	102
trans-1,2-Dichloroethene	156-60-5	93

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	100

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	CCV		
Lab ID:	1707252-12B	**Date/Time Analyzed:**	7/21/17 07:46 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072102sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	86
1,1,2,2-Tetrachloroethane	79-34-5	94
1,1,2-Trichloroethane	79-00-5	91
1,1-Dichloroethane	75-34-3	88
1,2-Dichloroethane	107-06-2	78
Benzene	71-43-2	77
Ethyl Benzene	100-41-4	96
m,p-Xylene	108-38-3	99
Tetrachloroethene	127-18-4	82
Toluene	108-88-3	82
Trichloroethene	79-01-6	85
Vinyl Chloride	75-01-4	80

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	89
4-Bromofluorobenzene	460-00-4	70-130	103
Toluene-d8	2037-26-5	70-130	101

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	CCV		
Lab ID:	1707252-12C	**Date/Time Analyzed:**	7/21/17 09:16 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072102

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	87
1,1,2,2-Tetrachloroethane	79-34-5	102
1,1,2-Trichloroethane	79-00-5	97
1,1-Dichloroethane	75-34-3	94
1,1-Dichloroethene	75-35-4	92
1,2,4-Trichlorobenzene	120-82-1	86
1,2,4-Trimethylbenzene	95-63-6	93
1,2-Dichlorobenzene	95-50-1	89
1,2-Dichloroethane	107-06-2	94
1,2-Dichloropropane	78-87-5	98
1,3-Butadiene	106-99-0	96
1,4-Dichlorobenzene	106-46-7	91
4-Methyl-2-pentanone	108-10-1	96
Benzene	71-43-2	95
Carbon Tetrachloride	56-23-5	88
Chlorobenzene	108-90-7	93
Chloroform	67-66-3	91
Cumene	98-82-8	93
Ethyl Benzene	100-41-4	94
Hexane	110-54-3	94
m,p-Xylene	108-38-3	98
Methylcyclohexane	108-87-2	91
Methylene Chloride	75-09-2	104
Styrene	100-42-5	98

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	CCV		
Lab ID:	1707252-12C	**Date/Time Analyzed:**	7/21/17 09:16 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072102

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	89
Toluene	108-88-3	93
trans-1,2-Dichloroethene	156-60-5	106
Trichloroethene	79-01-6	90
Vinyl Chloride	75-01-4	98

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	101

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	CCV		
Lab ID:	1707252-12D	**Date/Time Analyzed:**	7/25/17 10:07 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072502

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	89
1,1,2,2-Tetrachloroethane	79-34-5	101
1,1,2-Trichloroethane	79-00-5	94
1,1-Dichloroethane	75-34-3	97
1,1-Dichloroethene	75-35-4	92
1,2,4-Trichlorobenzene	120-82-1	82
1,2,4-Trimethylbenzene	95-63-6	91
1,2-Dichlorobenzene	95-50-1	88
1,2-Dichloroethane	107-06-2	93
1,2-Dichloropropane	78-87-5	97
1,3-Butadiene	106-99-0	94
1,4-Dichlorobenzene	106-46-7	88
4-Methyl-2-pentanone	108-10-1	95
Benzene	71-43-2	93
Carbon Tetrachloride	56-23-5	90
Chlorobenzene	108-90-7	92
Chloroform	67-66-3	92
Cumene	98-82-8	92
Ethyl Benzene	100-41-4	92
Hexane	110-54-3	96
m,p-Xylene	108-38-3	98
Methylcyclohexane	108-87-2	93
Methylene Chloride	75-09-2	106
Styrene	100-42-5	95

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	CCV		
Lab ID:	1707252-12D	**Date/Time Analyzed:**	7/25/17 10:07 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072502

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	89
Toluene	108-88-3	91
trans-1,2-Dichloroethene	156-60-5	105
Trichloroethene	79-01-6	88
Vinyl Chloride	75-01-4	98

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	104
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	LCS		
Lab ID:	1707252-13A	**Date/Time Analyzed:**	7/21/17 08:21 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072103

Compound	CAS#	%Recovery
1,1-Dichloroethene	75-35-4	105
1,2,4-Trichlorobenzene	120-82-1	111
1,2,4-Trimethylbenzene	95-63-6	120
1,2-Dichlorobenzene	95-50-1	102
1,2-Dichloropropane	78-87-5	103
1,3-Butadiene	106-99-0	101
1,4-Dichlorobenzene	106-46-7	103
4-Methyl-2-pentanone	108-10-1	120
Carbon Tetrachloride	56-23-5	61 Q
Chlorobenzene	108-90-7	100
Chloroform	67-66-3	99
Cumene	98-82-8	116
Hexane	110-54-3	110
Methylcyclohexane	108-87-2	109
Methylene Chloride	75-09-2	90
Styrene	100-42-5	122
trans-1,2-Dichloroethene	156-60-5	87

Q = Exceeds Quality Control limits.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	96
4-Bromofluorobenzene	460-00-4	70-130	104
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	LCSD		
Lab ID:	1707252-13AA	**Date/Time Analyzed:**	7/21/17 08:52 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072104

Compound	CAS#	%Recovery
1,1-Dichloroethene	75-35-4	106
1,2,4-Trichlorobenzene	120-82-1	109
1,2,4-Trimethylbenzene	95-63-6	118
1,2-Dichlorobenzene	95-50-1	100
1,2-Dichloropropane	78-87-5	105
1,3-Butadiene	106-99-0	101
1,4-Dichlorobenzene	106-46-7	102
4-Methyl-2-pentanone	108-10-1	122
Carbon Tetrachloride	56-23-5	61 Q
Chlorobenzene	108-90-7	99
Chloroform	67-66-3	99
Cumene	98-82-8	122
Hexane	110-54-3	108
Methylcyclohexane	108-87-2	108
Methylene Chloride	75-09-2	89
Styrene	100-42-5	126
trans-1,2-Dichloroethene	156-60-5	87

Q = Exceeds Quality Control limits.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	96
4-Bromofluorobenzene	460-00-4	70-130	109
Toluene-d8	2037-26-5	70-130	100

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	LCS		
Lab ID:	1707252-13B	**Date/Time Analyzed:**	7/21/17 08:21 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072103sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	95
1,1,2,2-Tetrachloroethane	79-34-5	106
1,1,2-Trichloroethane	79-00-5	100
1,1-Dichloroethane	75-34-3	97
1,2-Dichloroethane	107-06-2	86
Benzene	71-43-2	84
Ethyl Benzene	100-41-4	106
m,p-Xylene	108-38-3	113
Tetrachloroethene	127-18-4	92
Toluene	108-88-3	90
Trichloroethene	79-01-6	93
Vinyl Chloride	75-01-4	90

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	91
4-Bromofluorobenzene	460-00-4	70-130	105
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

eurofins | Air Toxics

Client ID:	LCSD		
Lab ID:	1707252-13BB	**Date/Time Analyzed:**	7/21/17 08:52 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21072104sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	95
1,1,2,2-Tetrachloroethane	79-34-5	112
1,1,2-Trichloroethane	79-00-5	103
1,1-Dichloroethane	75-34-3	97
1,2-Dichloroethane	107-06-2	88
Benzene	71-43-2	85
Ethyl Benzene	100-41-4	106
m,p-Xylene	108-38-3	113
Tetrachloroethene	127-18-4	92
Toluene	108-88-3	89
Trichloroethene	79-01-6	94
Vinyl Chloride	75-01-4	89

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	92
4-Bromofluorobenzene	460-00-4	70-130	111
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCS		
Lab ID:	1707252-13C	**Date/Time Analyzed:**	7/21/17 09:41 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072103

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	91
1,1,2,2-Tetrachloroethane	79-34-5	102
1,1,2-Trichloroethane	79-00-5	98
1,1-Dichloroethane	75-34-3	98
1,1-Dichloroethene	75-35-4	96
1,2,4-Trichlorobenzene	120-82-1	88
1,2,4-Trimethylbenzene	95-63-6	95
1,2-Dichlorobenzene	95-50-1	92
1,2-Dichloroethane	107-06-2	100
1,2-Dichloropropane	78-87-5	101
1,3-Butadiene	106-99-0	96
1,4-Dichlorobenzene	106-46-7	92
4-Methyl-2-pentanone	108-10-1	96
Benzene	71-43-2	94
Carbon Tetrachloride	56-23-5	92
Chlorobenzene	108-90-7	94
Chloroform	67-66-3	92
Cumene	98-82-8	94
Ethyl Benzene	100-41-4	97
Hexane	110-54-3	95
m,p-Xylene	108-38-3	99
Methylcyclohexane	108-87-2	94
Methylene Chloride	75-09-2	106
Styrene	100-42-5	100

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCS		
Lab ID:	1707252-13C	**Date/Time Analyzed:**	7/21/17 09:41 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda1 / a072103

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	90
Toluene	108-88-3	94
trans-1,2-Dichloroethene	156-60-5	92
Trichloroethene	79-01-6	93
Vinyl Chloride	75-01-4	101

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	97
Toluene-d8	2037-26-5	70-130	102

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCSD		
Lab ID:	1707252-13CC	**Date/Time Analyzed:**	7/21/17 10:06 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072104

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	93
1,1,2,2-Tetrachloroethane	79-34-5	104
1,1,2-Trichloroethane	79-00-5	100
1,1-Dichloroethane	75-34-3	103
1,1-Dichloroethene	75-35-4	100
1,2,4-Trichlorobenzene	120-82-1	93
1,2,4-Trimethylbenzene	95-63-6	96
1,2-Dichlorobenzene	95-50-1	94
1,2-Dichloroethane	107-06-2	101
1,2-Dichloropropane	78-87-5	102
1,3-Butadiene	106-99-0	98
1,4-Dichlorobenzene	106-46-7	94
4-Methyl-2-pentanone	108-10-1	97
Benzene	71-43-2	96
Carbon Tetrachloride	56-23-5	95
Chlorobenzene	108-90-7	94
Chloroform	67-66-3	98
Cumene	98-82-8	96
Ethyl Benzene	100-41-4	97
Hexane	110-54-3	103
m,p-Xylene	108-38-3	101
Methylcyclohexane	108-87-2	99
Methylene Chloride	75-09-2	110
Styrene	100-42-5	102

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCSD		
Lab ID:	1707252-13CC	**Date/Time Analyzed:**	7/21/17 10:06 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072104

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	92
Toluene	108-88-3	97
trans-1,2-Dichloroethene	156-60-5	102
Trichloroethene	79-01-6	94
Vinyl Chloride	75-01-4	104

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	107
4-Bromofluorobenzene	460-00-4	70-130	97
Toluene-d8	2037-26-5	70-130	103

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCS		
Lab ID:	1707252-13D	**Date/Time Analyzed:**	7/25/17 10:31 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072503

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	90
1,1,2,2-Tetrachloroethane	79-34-5	104
1,1,2-Trichloroethane	79-00-5	99
1,1-Dichloroethane	75-34-3	99
1,1-Dichloroethene	75-35-4	94
1,2,4-Trichlorobenzene	120-82-1	90
1,2,4-Trimethylbenzene	95-63-6	94
1,2-Dichlorobenzene	95-50-1	93
1,2-Dichloroethane	107-06-2	100
1,2-Dichloropropane	78-87-5	106
1,3-Butadiene	106-99-0	97
1,4-Dichlorobenzene	106-46-7	93
4-Methyl-2-pentanone	108-10-1	100
Benzene	71-43-2	101
Carbon Tetrachloride	56-23-5	92
Chlorobenzene	108-90-7	96
Chloroform	67-66-3	94
Cumene	98-82-8	96
Ethyl Benzene	100-41-4	98
Hexane	110-54-3	100
m,p-Xylene	108-38-3	100
Methylcyclohexane	108-87-2	95
Methylene Chloride	75-09-2	107
Styrene	100-42-5	104

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCS		
Lab ID:	1707252-13D	**Date/Time Analyzed:**	7/25/17 10:31 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072503

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	92
Toluene	108-88-3	98
trans-1,2-Dichloroethene	156-60-5	96
Trichloroethene	79-01-6	97
Vinyl Chloride	75-01-4	103

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	102
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	105

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCSD		
Lab ID:	1707252-13DD	**Date/Time Analyzed:**	7/25/17 10:56 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072504

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	91
1,1,2,2-Tetrachloroethane	79-34-5	103
1,1,2-Trichloroethane	79-00-5	95
1,1-Dichloroethane	75-34-3	100
1,1-Dichloroethene	75-35-4	97
1,2,4-Trichlorobenzene	120-82-1	90
1,2,4-Trimethylbenzene	95-63-6	93
1,2-Dichlorobenzene	95-50-1	91
1,2-Dichloroethane	107-06-2	95
1,2-Dichloropropane	78-87-5	101
1,3-Butadiene	106-99-0	98
1,4-Dichlorobenzene	106-46-7	93
4-Methyl-2-pentanone	108-10-1	97
Benzene	71-43-2	96
Carbon Tetrachloride	56-23-5	90
Chlorobenzene	108-90-7	92
Chloroform	67-66-3	93
Cumene	98-82-8	94
Ethyl Benzene	100-41-4	93
Hexane	110-54-3	99
m,p-Xylene	108-38-3	99
Methylcyclohexane	108-87-2	97
Methylene Chloride	75-09-2	106
Styrene	100-42-5	101

* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN

eurofins | Air Toxics

Client ID:	LCSD		
Lab ID:	1707252-13DD	**Date/Time Analyzed:**	7/25/17 10:56 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a072504

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	91
Toluene	108-88-3	94
trans-1,2-Dichloroethene	156-60-5	93
Trichloroethene	79-01-6	95
Vinyl Chloride	75-01-4	104

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	103

* % Recovery is calculated using unrounded analytical results.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: INT Work Order Number: 1707780 RcptNo: 1

Received By: Andy Jansson 7/14/2017 4:45:00 PM
Completed By: Anne Thorne 7/17/2017 10:07:13 AM
Reviewed By: 7/17/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☑
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☐ NA ☑
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Chain-of-Custody Record

Client: INTERA

Mailing Address: 6000 Uptown Blvd NE, Suite 220, ABQ, NM

Phone #: 505 246 1600

email or Fax#: jtracy@intera.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☒ EDD (Type) Excel

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: City of Santa Fe Ortiz Landfill

Project #:

Project Manager: Joe Tracy

Sampler: E. Marcillo + M. Gerber

On Ice: ☐ Yes ☒ No

Sample Temperature: NA

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1707780	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TO-15 Hi/Lo				Air Bubbles (Y or N)
7/13/17	1315	Air	SV-01-S	6 LSC	Grab	001												X				
7/13/17	1356	Air	SV-01-I	6 LSC	Grab	002												X				
7/13/17	1442	Air	SV-01-D	6 LSC	Grab	003												X				
7/13/17	1115	Air	SV-04-I	6 LSC	Grab	004												X				
7/13/17	1545	Air	SV-02-S	6 LSC	Grab	005												X				
7/13/17	1625	Air	~~SV-03-S~~ SV-02-I	6 LSC	Grab	006												X				
7/13/17	1240	Air	SV-02-D	6 LSC	Grab	007												X				
7/13/17	1320	Air	SV-03-S	6 LSC	Grab	008												X				
7/13/17	1415	Air	SV-03-I	6 LSC	Grab	009												X				
7/13/17	1515	Air	SV-03-D	6 LSC	Grab	010												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/14/17	1645	[signature]	[signature]	7/14/17	1645
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Grab Samples

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

at

From: Eileen Marcillo [mailto:eMarcillo@intera.com]
Sent: Monday, July 10, 2017 1:52 PM
To: Anne Thorne <anne@hallenvironmental.com>
Subject: RE: QUESTION

TO-15 SIMS
11 samples total
Please confirm that this will cover this list

Vinyl Chloride
1,3-Butadiene
1,1-Dichloroethene
Methylene chloride
trans-1,2-Dichloroethene
1,1-Dichloroethane
Hexane
Chloroform
1,2-Dichloroethane (EDC)
1,1,1-Trichloroethane
Benzene
Carbon Tetrachloride
1,2-Dichloropropane
Trichloroethene
Methylcyclohexane
1,1,2-Trichloroethane
Methyl isobutyl ketone (4-Methyl-2-pentanone)
Toluene
Tetrachloroethene
Chlorobenzene
Ethylbenzene
m,p-Xylene
Styrene
1,1,2,2-Tetrachloroethane
Cumene (isopropylbenzene)
1,2,4-Trimethylbenzene
1,4-Dichlorobenzene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene

SORRY!!!!

From: Anne Thorne [mailto:anne@hallenvironmental.com]
Sent: Monday, July 10, 2017 10:11 AM
To: Eileen Marcillo <eMarcillo@intera.com>
Subject: RE: QUESTION
Importance: High

Yes his name is Brian Whittaker- 916-605-3355 and his email is BrianWhittaker@eurofinsUS.com.

at

APPENDIX G

Geotechnical Laboratory Reports- Soil Cover Testing Results

Laboratory Report for

Intera, Inc.

Ortiz Landfill Waste Characterization,

COSFE.C001.ORTIZ Task 2

July 31, 2017

Daniel B. Stephens & Associates, Inc.

4400 Alameda Blvd. NE, Suite C • Albuquerque, New Mexico 87113

July 31, 2017

Ashley Arrossa
Intera Inc.
6000 Uptown Blvd. NE, Suite 220
Albuquerque, NM 87110
(505) 246-1600

Re: DBS&A Laboratory Report for the Intera, Inc. Ortiz Landfill Waste Characterization, COSFE.C001.ORTIZ Task 2 Project

Dear Ms. Arrossa:

Enclosed is the report for the Intera, Inc. Ortiz Landfill Waste Characterization, COSFE.C001.ORTIZ Task 2 Project samples. Please review this report and provide any comments as samples will be held for a maximum of 30 days. After 30 days samples will be returned or disposed of in an appropriate manner.

All testing results were evaluated subjectively for consistency and reasonableness, and the results appear to be reasonably representative of the material tested. However, DBS&A does not assume any responsibility for interpretations or analyses based on the data enclosed, nor can we guarantee that these data are fully representative of the undisturbed materials at the field site. We recommend that careful evaluation of these laboratory results be made for your particular application.

The testing utilized to generate the enclosed report employs methods that are standard for the industry. The results do not constitute a professional opinion by DBS&A, nor can the results affect any professional or expert opinions rendered with respect thereto by DBS&A. You have acknowledged that all the testing undertaken by us, and the report provided, constitutes mere test results using standardized methods, and cannot be used to disqualify DBS&A from rendering any professional or expert opinion, having waived any claim of conflict of interest by DBS&A.

We are pleased to provide this service to Intera, Inc. and look forward to future laboratory testing on other projects. If you have any questions about the enclosed data, please do not hesitate to call.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.
SOIL TESTING & RESEARCH LABORATORY

Joleen Hines
Laboratory Manager

Enclosure

Daniel B. Stephens & Associates, Inc.
Soil Testing & Research Laboratory
4400 Alameda Blvd. NE, Suite C
Albuquerque, NM 87113
505-889-7752
FAX 505-889-0258

Summaries

Summary of Tests Performed

Laboratory Sample Number	Initial Soil Properties[1]			Saturated Hydraulic Conductivity[2]			Moisture Characteristics[3]								Particle Size[4]			Specific Gravity[5]		Air Perm-eability	Atterberg Limits	Proctor Compaction
	G	VM	VD	CH	FH	FW	HC	PP	FP	DPP	RH	EP	WHC	K_{unsat}	DS	WS	H	F	C			
OLF-CS-22	X															X	X				X	X

[1] G = Gravimetric Moisture Content, VM = Volume Measurement Method, VD = Volume Displacement Method

[2] CH = Constant Head Rigid Wall, FH = Falling Head Rigid Wall, FW = Falling Head Rising Tail Flexible Wall

[3] HC = Hanging Column, PP = Pressure Plate, FP = Filter Paper, DPP = Dew Point Potentiometer, RH = Relative Humidity Box, EP = Effective Porosity, WHC = Water Holding Capacity, Kunsat = Calculated Unsaturated Hydraulic Conductivity

[4] DS = Dry Sieve, WS = Wet Sieve, H = Hydrometer

[5] F = Fine (<4.75mm), C = Coarse (>4.75mm)

Notes

Sample Receipt:
One sample was hand delivered on July 20, 2017. The sample was received in a 5-gallon bucket sealed with a lid and duct tape. The sample arrived in good order.

Sample Preparation and Testing Notes:
The sample was subjected to initial gravimetric moisture content testing, modified proctor compaction testing, particle size analysis and Atterberg limits testing.

Particle diameter calculations in the hydrometer portion of the particle size analysis testing are based on the use of an assumed specific gravity value of 2.65.

Particles larger than 4.75mm were removed from the bulk material prior to running the proctor compaction testing. Oversize correction calculations are provided since the removed fraction is larger than 5% of the bulk sample mass.

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

	Moisture Content						
	As Received		Remolded				
Sample Number	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
OLF-CS-22	3.2	NA	---	---	NA	NA	NA

NA = Not analyzed

--- = This sample was not remolded

Summary of Particle Size Characteristics

Sample Number	d_{10} (mm)	d_{50} (mm)	d_{60} (mm)	C_u	C_c	Method	ASTM Classification	USDA Classification
OLF-CS-22	0.028	0.48	0.63	23	4.1	WS/H	Silty sand (SM)	Loamy Sand †

d_{50} = Median particle diameter

Est = Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

$$C_u = \frac{d_{60}}{d_{10}}$$

$$C_c = \frac{(d_{30})^2}{(d_{10})(d_{60})}$$

DS = Dry sieve

H = Hydrometer

WS = Wet sieve

† Greater than 10% of sample is coarse material

Percent Gravel, Sand, Silt and Clay*

Sample Number	% Gravel (>4.75mm)	% Sand (<4.75mm, >0.075mm)	% Silt (<0.075mm, >0.002mm)	% Clay (<0.002mm)
OLF-CS-22	5.6	80.3	10.4	3.8

*USCS classification does not classify clay fraction based on particle size. USDA definition of clay (<0.002mm) used in this table.

Summary of Atterberg Tests

Sample Number	Liquid Limit	Plastic Limit	Plasticity Index	Classification
OLF-CS-22	---	---	---	ML

--- = Soil requires visual-manual classification due to non-plasticity

Summary of Proctor Compaction Tests

Sample Number	Measured Optimum Moisture Content (% g/g)	Measured Maximum Dry Bulk Density (g/cm^3)	Oversize Corrected Optimum Moisture Content (% g/g)	Oversize Corrected Maximum Dry Bulk Density (g/cm^3)
OLF-CS-22	9.1	2.04	8.6	2.07

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NR = Not requested
NA = Not applicable

Initial Properties

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

	Moisture Content						
	As Received		Remolded				
Sample Number	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
OLF-CS-22	3.2	NA	---	---	NA	NA	NA

NA = Not analyzed

--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Intera, Inc.
Job Number: DB17.1180.00
Sample Number: OLF-CS-22
Date Sampled: 6/15/17
Project Name: Ortiz Landfill Waste Characterization

	As Received	Remolded
Test Date:	21-Jul-17	---
Field weight of sample* (g)*:*	1306.72	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	408.55	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	870.64	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	3.2	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: A. Bland
Data entered by: A. Bland
Checked by: J. Hines

Comments:

* Weight including tares
NA = Not analyzed
--- = This sample was not remolded

Particle Size Analysis

Summary of Particle Size Characteristics

Sample Number	d_{10} (mm)	d_{50} (mm)	d_{60} (mm)	C_u	C_c	Method	ASTM Classification	USDA Classification
OLF-CS-22	0.028	0.48	0.63	23	4.1	WS/H	Silty sand (SM)	Loamy Sand †

d_{50} = Median particle diameter

Est = Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

$$C_u = \frac{d_{60}}{d_{10}}$$

$$C_c = \frac{(d_{30})^2}{(d_{10})(d_{60})}$$

DS = Dry sieve

H = Hydrometer

WS = Wet sieve

† Greater than 10% of sample is coarse material

Percent Gravel, Sand, Silt and Clay*

Sample Number	% Gravel (>4.75mm)	% Sand (<4.75mm, >0.075mm)	% Silt (<0.075mm, >0.002mm)	% Clay (<0.002mm)
OLF-CS-22	5.6	80.3	10.4	3.8

*USCS classification does not classify clay fraction based on particle size. USDA definition of clay (<0.002mm) used in this table.

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Wet Sieve Data (#10 Split)

Job Name: Intera, Inc.
Job Number: DB17.1180.00
Sample Number: OLF-CS-22
Date Sampled: 6/15/17
Project Name: Ortiz Landfill Waste Characterization
Test Date: 27-Jul-17

Initial Dry Weight of Sample (g): 24249.64
Weight Passing #10 (g): 21144.28
Weight Retained #10 (g): 3105.37
Weight of Hydrometer Sample (g): 85.57
Calculated Weight of Sieve Sample (g): 98.14

Shape: Angular
Hardness: Weathered and friable

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	24249.64	100.00
	2"	50	0.00	0.00	24249.64	100.00
	1.5"	38.1	0.00	0.00	24249.64	100.00
	1"	25	88.72	88.72	24160.92	99.63
	3/4"	19.0	179.42	268.14	23981.50	98.89
	3/8"	9.5	446.20	714.34	23535.30	97.05
	4	4.75	633.20	1347.54	22902.10	94.44
	10	2.00	1757.83	3105.37	21144.28	87.19
-10			(Based on calculated sieve wt.)			
	20	0.85	16.34	28.91	69.23	70.54
	40	0.425	24.29	53.20	44.94	45.79
	60	0.250	17.59	70.79	27.35	27.87
	140	0.106	11.75	82.54	15.60	15.90
	200	0.075	1.74	84.28	13.86	14.12
	dry pan		0.13	84.41	13.73	
	wet pan			13.73	0.00	

d_{10} (mm): 0.028 d_{50} (mm): 0.48
d_{16} (mm): 0.11 d_{60} (mm): 0.63
d_{30} (mm): 0.27 d_{84} (mm): 1.7

Median Particle Diameter --d_{50} (mm): 0.48
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 23
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 4.1
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.76

Classification of fines (visual method): ML

ASTM Soil Classification: Silty sand (SM)
USDA Soil Classification: Loamy Sand †

† Greater than 10% of sample is coarse material

Laboratory analysis by: A. Bland/J. Falance
Data entered by: A. Bland
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Hydrometer Data

Job Name: Intera, Inc.
Job Number: DB17.1180.00
Sample Number: OLF-CS-22
Date Sampled: 6/15/17
Project Name: Ortiz Landfill Waste Characterization

Test Date: 25-Jul-17
Start Time: 9:00

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* NA
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

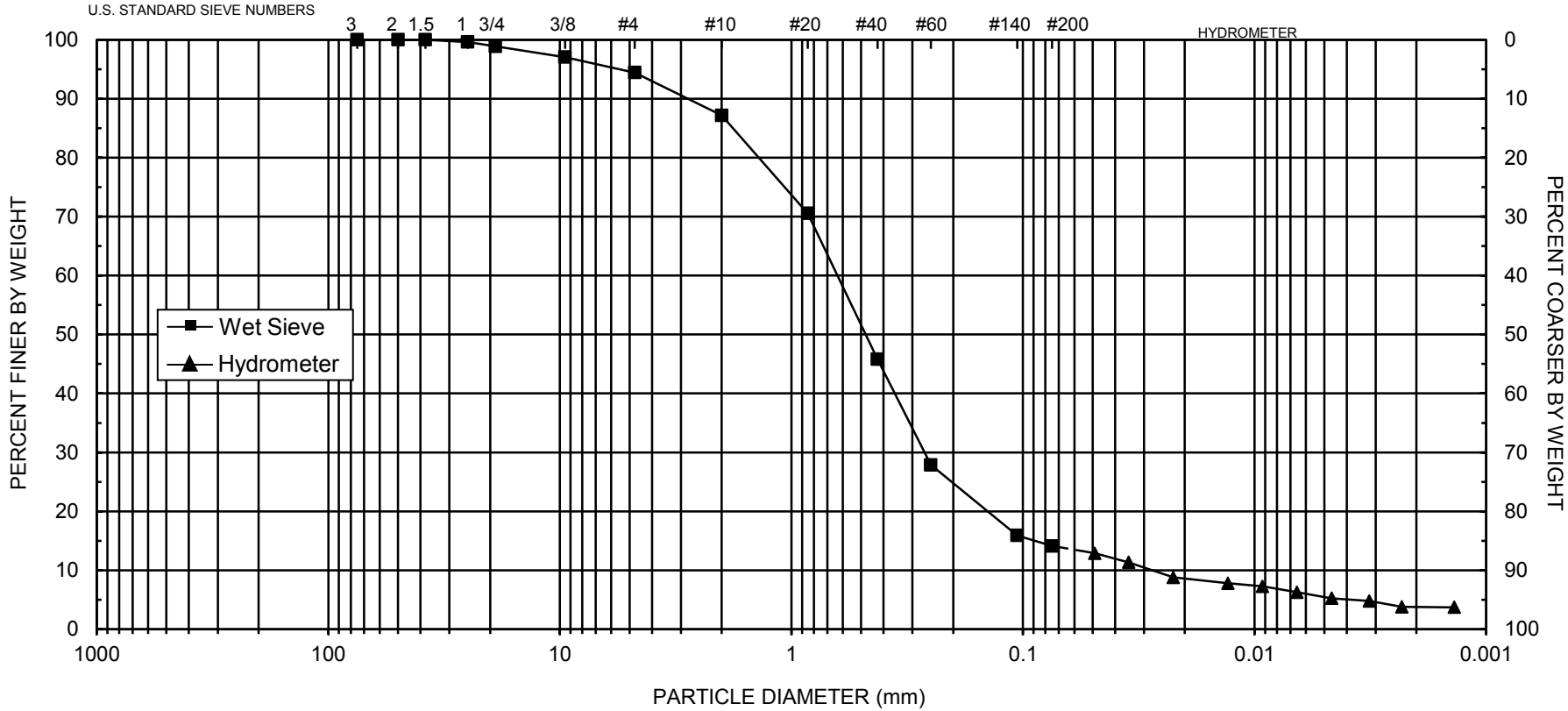
Initial Wt. (g)*:* 85.57
Total Sample Wt. (g)*:* 24249.64
Wt. Passing #10 (g): 21144.28

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	L (cm)	D (mm)	P (%)	% Finer
25-Jul-17	1	21.4	18.0	5.4	12.6	13.3	0.04893	14.8	12.9
	2	21.4	16.5	5.4	11.1	13.6	0.03492	13.0	11.3
	5	21.4	14.0	5.4	8.6	14.0	0.02241	10.1	8.8
	15	21.4	13.0	5.4	7.6	14.2	0.01302	8.9	7.8
	30	21.4	12.5	5.4	7.1	14.3	0.00923	8.3	7.3
	60	21.6	11.5	5.4	6.1	14.4	0.00655	7.2	6.3
	120	21.9	10.5	5.4	5.2	14.6	0.00464	6.0	5.2
	250	22.7	10.0	5.3	4.7	14.7	0.00319	5.5	4.8
	480	22.9	9.0	5.3	3.7	14.8	0.00231	4.3	3.8
26-Jul-17	1406	21.6	9.0	5.4	3.6	14.8	0.00137	4.3	3.7

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: A. Bland
Data entered by: A. Bland
Checked by: J. Hines



UNIFIED	COBBLES	GRAVEL		SAND			SILT OR CLAY				
		Coarse	Fine	Coarse	Medium	Fine					
USDA	COBBLES	GRAVEL		SAND					SILT		CLAY
				Very coarse	Coarse	Medium	Fine	Very fine			

d_{10} = **0.028**	d_{30} = **0.27**	d_{50} = **0.48**	d_{60} = **0.63**	C_u = **23**	C_c = **4.1**

SAMPLE NUMBER	PROJECT NAME	ASTM CLASSIFICATION	USDA CLASSIFICATION
OLF-CS-22	**Ortiz Landfill Waste Characterization**	**Silty sand (SM)**	**Loamy Sand †**

† Greater than 10% of sample is coarse material

Daniel B. Stephens & Associates, Inc.

Atterberg Limits/
Identification of Fines

Summary of Atterberg Tests

Sample Number	Liquid Limit	Plastic Limit	Plasticity Index	Classification
OLF-CS-22	---	---	---	ML

--- = Soil requires visual-manual classification due to non-plasticity

Atterberg Limits

Job Name: Intera, Inc.
Job Number: DB17.1180.00
Sample Number: OLF-CS-22
Date Sampled: 6/15/17
Project Name: Ortiz Landfill Waste Characterization

Test Date: 25-Jul-17

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:			
Pan number:			
Weight of pan plus moist soil (g):			
Weight of pan plus dry soil (g)			
Weight of pan (g):			
Gravimetric moisture content (% g/g):	---	---	---
Liquid Limit:	---		

Plastic Limit

	Trial 1	Trial 2
Pan number:		
Weight of pan plus moist soil (g):		
Weight of pan plus dry soil (g)		
Weight of pan (g):		
Gravimetric moisture content (% g/g):	---	---
Plastic Limit:	---	

Results

Percent of Sample Retained on #40 Sieve: See Sieve

Liquid Limit: ---
Plastic Limit: ---
Plasticity Index: ---

Classification (Visual Method): ML

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: A. Bland
Data entered by: A. Bland
Checked by: J. Hines

Data for Description and Identification of Fines
(Visual-Manual Procedure)

Job Name: Intera, Inc.
Job Number: DB17.1180.00
Sample Number: OLF-CS-22
Date Sampled: 6/15/17
Project Name: Ortiz Landfill Waste Characterization

Test Date: 25-Jul-17

Visual-manual classification of material passing the #40 sieve in lieu of Atterberg analysis due to non-plasticity:

Descriptive Information:

Color of Moist Sample: Yellowish Red (5YR 4/6)
Odor: None
Moisture Condition: Moist
HCl Reaction: Weak

Preliminary Identification:

Dry Strength: Low
Dilatency: Rapid
Toughness: Low
Plasticity: Non-plastic

Identification of Inorganic Fine Grained Soils:

Silt (ML)

Laboratory analysis by: A. Bland
Data entered by: A. Bland
Checked by: J. Hines

Proctor Compaction

Summary of Proctor Compaction Tests

Sample Number	Measured Optimum Moisture Content (% g/g)	Measured Maximum Dry Bulk Density (g/cm^3)	Oversize Corrected Optimum Moisture Content (% g/g)	Oversize Corrected Maximum Dry Bulk Density (g/cm^3)
OLF-CS-22	9.1	2.04	8.6	2.07

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NR = Not requested
NA = Not applicable

Proctor Compaction Data

Job Name:	Intera, Inc.	*Split (3/4", 3/8", #4):*	#4
Job Number:	DB17.1180.00	*Mass of coarse material* (g)*:*	1347.54
Sample Number:	OLF-CS-22	*Mass of fines material* (g)*:*	22902.10
Date Sampled:	6/15/17	*Mold weight (g):*	4371
Project Name:	Ortiz Landfill Waste Characterization	*Mold volume* (cm^3)*:*	944.58
Test Date:	24-Jul-17	*Compaction Method:*	Modified A
		Preparation Method:	Dry
As Received Moisture Content (% g/g):	3.16	*Type of Rammer:*	Mechanical

Trial	Weight of Mold and Compacted Soil (g)	Weight of Container and Wet Soil (g)	Weight of Container and Dry Soil (g)	Weight of Container (g)	Dry Bulk Density (g/cm^3)	Moisture Content (% g/g)
1	6320	1295.47	1243.92	269.22	1.96	5.29
2	6410	886.78	844.69	263.20	2.01	7.24
3	6481	1082.76	1007.60	207.69	2.04	9.40
4	6439	1093.00	1003.40	210.99	1.97	11.31
5	6395	1153.07	1042.69	209.35	1.89	13.25

Soil Fractions

Coarse Fraction (% g/g): 5.6

Fines Fraction (% g/g): 94.4

Properties of Coarse Material

Assumed particle density (g/cm^3)*:* 2.65

Assumed Initial Moisture Content (% g/g): 0.0

Oversize Corrected Values for Dry Bulk Density and Moisture Content

Trial	Dry Bulk Density of Composite (g/cm^3)	Moisture Content of Composite (% g/g)
1	1.99	4.99
2	2.04	6.84
3	2.07	8.87
4	2.00	10.68
5	1.92	12.51

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass

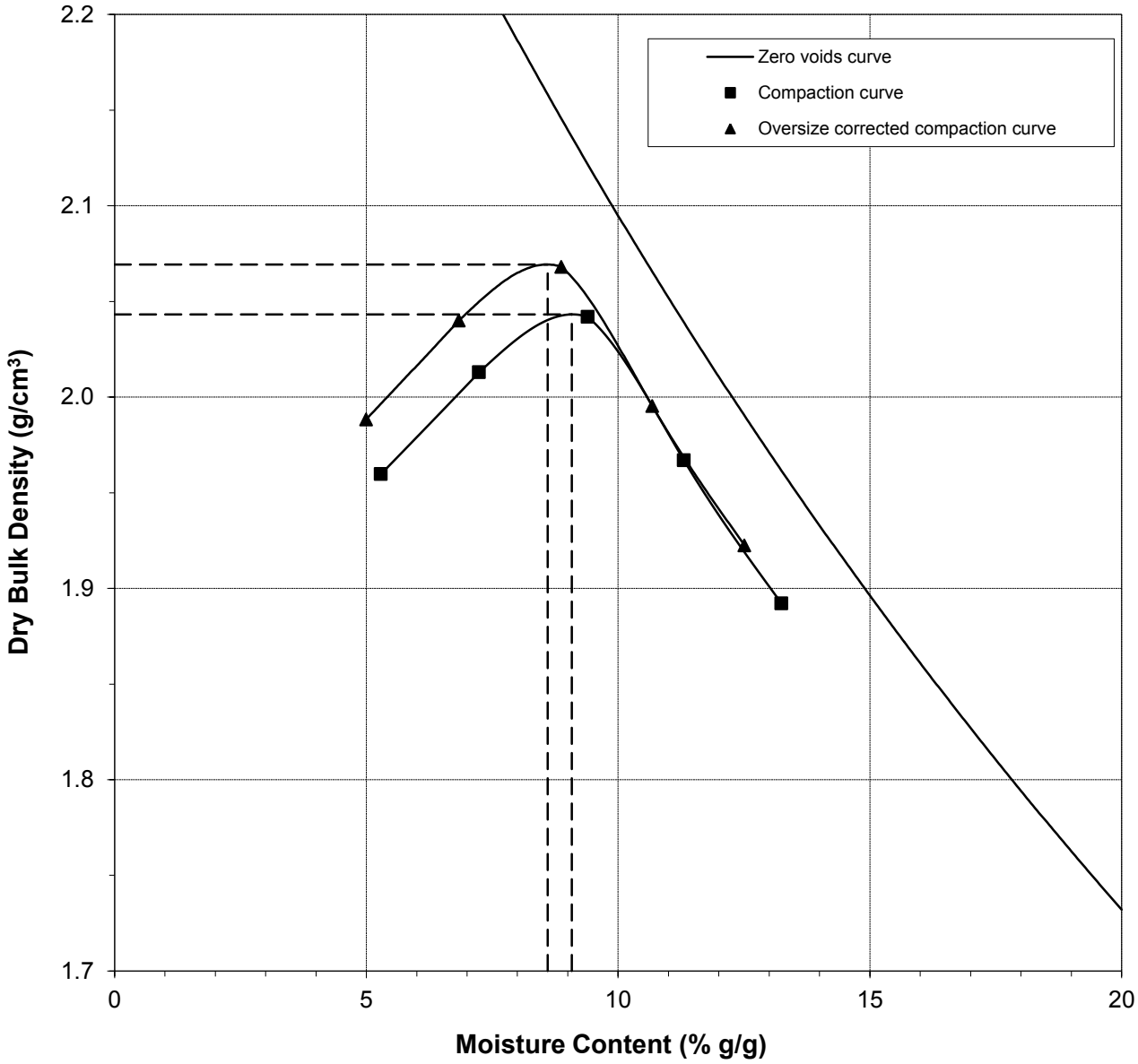
Laboratory analysis by: A. Bland
Data entered by: A. Bland
Checked by: J. Hines

Proctor Compaction Data Points with Fitted Curve

Sample Number: OLF-CS-22

	Measured	Corrected
Optimum Moisture Content (% g/g):	9.1	8.6
Maximum Dry Bulk Density (g/cm^3):	2.04	2.07

Test Date: 24-Jul-17



--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass

Laboratory analysis by: A. Bland
Data entered by: A. Bland
Checked by: J. Hines

Laboratory Tests and Methods

Tests and Methods

Moisture Content:	ASTM D2216
Particle Size Analysis:	ASTM D7928, ASTM D6913
USCS (ASTM) Classification:	ASTM D7928, ASTM D6913, ASTM D2487
USDA Classification:	ASTM D7928, ASTM D6913, USDA Soil Textural Triangle
Atterberg Limits:	ASTM D4318
Visual-Manual Description:	ASTM D2488
Modified Proctor Compaction:	ASTM D1557
Coarse Fraction (Gravel) Correction (calc):	ASTM D4718; Bouwer, H. and Rice, R.C. 1984. Hydraulic Properties of Stony Vadose Zones. Groundwater Vol. 22, No. 6