

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NRM2023331895
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Whiptail Midstream LLC	OGRID 373240
Contact Name: Ernest Johnson	Contact Telephone 918.289.2147
Contact email: ernie.johnson@whiptailmidstream.com	Incident # (assigned by OCD)
Contact mailing address 15 W. 6 <sup>th</sup> Street, Suite 2901, Tulsa, OK 74119	

### Location of Release Source

Latitude 36.2550621° Longitude -107.6777573°  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Chaco 2308 3L 405H	Site Type: Transfer Location
Date Release Discovered: 8/17/2020	API# N/A

Unit Letter	Section	Township	Range	County
L	3	23N	8W	San Juan

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 80 bbls	Volume Recovered (bbls) 35- 40 bbls
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 100 bbls	Volume Recovered (bbls) 35 - 40 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

State of New Mexico  
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## Cause of Release

Whiptail discovered a release of crude oil/produced water originating from a produced water pipe on August 17, 2020 near the Enduring Resources Chaco 2308 3L 405H well site, located in Section 4, T23N, R8W in San Juan County, NM. The volume of crude oil/ produced water mix was released is estimated at 200 bbls at this time, of which approximately 70-100 bbls were released outside of a lined containment. Whiptail recovered approximately 70 - 80 bbls of standing liquids via vac truck. The release went off-pad to the east approximately 360 feet down a first order tributary to Kimbeto Wash and another 410 feet down Kimbeto Wash and approximately 140 feet off-pad to the southwest. A third party contractor has been retained to oversee remediation of the release.

Was this a major release as defined by 19.15.29.7(A) NMAC?

☒ Yes ☐ No

If YES, for what reason(s) does the responsible party consider this a major release?  
An unauthorized release greater than 25 bbls.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?  
Originally reported to NMOCD and BLM by Enduring on 8/17/20.

Verbal notification was provided to the NMOCD (Cory Smith) by Whiptail (Ernie Johnson) and BLM (Emmanuel Abiodun Adeloye) by LT Environmental on Whiptail's behalf (Brooke Herb) on 8/18/20, within 24 hours of discovering the release.

## Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:


Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Ernest Johnson Title: Director of Risk and Engineering Services

Signature:  Date: 8/19/20

email: ernie.johnson@whiptailmidstream.com Telephone: 918.289.2147

**OCD Only**

Received by: Ramona Marcus Date: 8/20/2020

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## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	____(ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.




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Printed Name: Ernest Johnson Title: Director of Risk and Engineering Services

Signature:  Date: 11/13/2020

email: ernie.johnson@whiptailmidstream.com Telephone: 918.289.2147

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NRM2023331895
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## Remediation Plan


**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

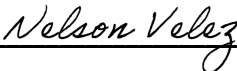
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Ernest Johnson Title: Director of Risk and Engineering Services  
Signature:  Date: 11/13/2020  
email: ernie.johnson@whiptailmidstream.com Telephone: 918.289.2147

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature:  Date: 03/28/2022



# SITE CHARACTERIZATION REPORT AND REMEDATION WORK PLAN

## CHACO 2308 03L #404H

WHIPTAIL MIDSTREAM AND ENDURING  
RESOURCES IV, LLC

PROJECT NO.: TE077920009  
NMOCD INCIDENT NO.: NRM2023331895  
DATE: NOVEMBER 13, 2020

WSP  
848 EAST 2<sup>ND</sup> AVENUE  
DURANGO, COLORADO

T: +1 (970) 385-1096

WSP.COM

NOVEMBER 13, 2020

CONFIDENTIAL

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# SIGNATURES

PREPARED BY



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Stuart Hyde, L.G.  
Environmental Geologist

APPROVED<sup>1</sup> BY (must be reviewed for technical accuracy prior to approval)



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Steve Kahn, P.E.  
Managing Director

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<sup>1</sup> Approval of this document is an administrative function indicating readiness for release and does not impart legal liability on to the Approver for any technical content contained herein. Technical accuracy and fit-for-purpose of this content is obtained through the review process. The Approver shall ensure the applicable review process has occurred prior to signing the document.



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## PHOTOGRAPHIC LOG

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## APPENDICES

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APPENDIX B:	WCRM ARCHAEOLOGICAL SURVEY
APPENDIX C:	ANALYTICAL LABORATORY REPORTS
APPENDIX D:	WSP BORING LOGS

# 1 BACKGROUND

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## 1.1 SITE BACKGROUND

WSP, on behalf of Whiptail Midstream (Whiptail) and Enduring Resources IV, LLC (Enduring), has prepared this report detailing remediation activities to date and to propose a remediation work plan to address remaining impacts to soil at the Chaco 2308 03L 404H and 405H production well site (Site). The Site is located in Unit L, Section 3, Township 23 North, Range 8 West in San Juan County, New Mexico (Figure 1). The Site consists of two oil-production wells (Chaco 2308 03L #404H and Chaco 2308 03L #405H) owned by Enduring and associated equipment within a lined secondary containment (including several aboveground storage tanks, pumps, separators, and other equipment). The well pad is located on land owned by the United States Bureau of Land Management (BLM).

A release of crude oil and produced water was first discovered at the Site on August 17, 2020. The fluids were observed seeping through the liner and into the secondary containment, as well as on the ground surface to the southwest, south, and southeast sides of the lined secondary containment. Several pipelines for the transfer of produced water and crude oil are located underneath the liner of the secondary containment. Enduring shut in both oil wells and the pipelines at the Site and was able to control the release. Enduring subcontracted vacuum trucks to capture standing fluids, with approximately 80 barrels (bbls) recovered and transported for off-site disposal. Based on pressure tests performed by Enduring and Whiptail, it appears that the release of crude oil/produced water originated from piping that belonged to Whiptail underneath the liner. Whiptail provided verbal or email notifications to the BLM and New Mexico Oil Conservation Division (NMOCD) on August 17, 2020. Whiptail reported the release to the NMOCD on a *Release Notification and Corrective Action Form C-141* (Form C-141) on August 19, 2020 and was subsequently assigned Incident Number NRM2023331895. Whiptail estimated approximately 180 barrels (bbls) of crude oil/ produced water mix was released, of which 70 to 80 bbls were released outside of a lined containment.

During a site visit on August 18, 2020, during emergency response activities, WSP observed standing fluid along with saturated and stained soil within and around the secondary containment (see attached Photographs 1, 2, and 3). The release flowed away from the secondary containment to the west but remained on pad. It was observed south of the containment around equipment and following several drainages leading off pad. South of the pad, it spread into a vegetated area. The vegetation had not yet exhibited signs of stress, but saturated and stained soil were observed. To the east, the release flowed into a dry wash and flowed south approximately 850 feet into Kimbeto Wash.

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## 1.2 SITE RECEPTORS

Assessment of potential nearby receptors was conducted through desktop reviews of topographic maps, Federal Emergency Management Administration (FEMA) Geographic Information System (GIS) maps, United States Geological Survey (USGS) GIS maps, New Mexico Office of the State Engineer database, and aerial photographs, as well as site-specific observations.

Based on United States Geological Survey (USGS) geologic mapping, the Site is located within the Tertiary Nacimiento Formation. In the report titled *Hydrogeology and Water Resources of San Juan Basin, New Mexico* (Stone, et. al., 1983), the Nacimiento Formation is characterized by interbedded black carbonaceous mudstones and white, coarse-grained sandstones. This formation ranges in thickness from 418 to 2,232 feet. The Nacimiento Formation overlies the Ojo Alamo sandstone formation, which is the shallowest water-bearing unit beneath the Site (Stone, Lyford, Frenzel, Mizell, & Padgett, 1983).

Borings at the Site indicate that groundwater is not present at depths up to 15 feet below ground surface (bgs). The closest water well to the Site is SJ-04195, located approximately 1.64 miles southeast of the Site (Figure 2), with a depth to groundwater reported at 290 feet bgs. No wellhead protection areas, springs, or domestic/stock wells are located within a half mile from the site (Figure 2). The nearest significant watercourse to the Site is a tributary to Kimbeto Wash, located approximately 90 feet to the east (Figures 2 and 3). The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake, and greater than 300 feet from any wetland (Figure 3).

Surface land use surrounding the Site consists primarily of oil and gas development and potential livestock grazing. No occupied permanent residence or structures, including schools, hospitals, institutions, and/or churches, are located within 300 feet of the Site. The Site is not within the area of a subsurface mine or unstable area and is not within the 100-year floodplain.

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## 1.3 REGULATORY CLOSURE CRITERIA

WSP characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of 19.15.29.12 of the New Mexico Administrative Code (NMAC). Due to the Site's proximity to a significant watercourse (adjacent wash), the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 100 mg/kg total petroleum hydrocarbons (TPH); and 600 mg/kg chloride.

Whiptail proposed a variance to the confirmation-sampling frequency of 200 square feet presented in Subsection D of 19.15.29.12 NMAC. Based on the large size of the impacted area, NMOCD approved a variance to collect excavation-confirmation samples at a frequency of every 400 square feet from the excavation floors and sidewalls. The NMOCD approval is attached as Appendix A.



## 2 SITE ACTIVITIES AND FINDINGS

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### 2.1 INITIAL RESPONSE AND SOIL EXCAVATION

After the initial release discovery, Enduring/Whiptail subcontracted vacuum trucks to capture standing fluids at the Site. Approximately 80 bbls were recovered on August 17, 2020 and transported for disposal. To visually inspect for surface impacts at the Site, drone aerial photographs were captured by Enduring on August 18, 2020. The aerial photographs were used to initially delineate the surface impacts and guide initial excavation efforts. WSP mapped the release footprint using a handheld Global Positioning System (GPS) unit (able to achieve a horizontal accuracy of 1.5 feet) and estimated the release footprint to encompass approximately 42,000 square feet based on the presence of fluid and stained soil.

Prior to beginning work, an archaeological survey was performed by Western Cultural Resource Management, Inc. (WCRM). The survey results indicated no cultural materials were encountered and excavation activities could commence (survey results are included as Appendix B). Dirt-moving equipment was mobilized to the Site on August 19, 2020 to begin excavation of impacted soil located off the well pad. The off-pad areas impacted by the release, and subsequent excavations, have been named the “Southwest (SW) Area” and the “Wash Area” (indicated on Figure 4). A majority of on-pad impacted soil was inaccessible due to the location of equipment and aboveground storage tanks.

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#### 2.1.1 WASH AREA REMEDIAL EXCAVATION

Impacted soil was first removed from the tributary wash and Kimbeto Wash located east and south of the well pad. As the excavation progressed, WSP collected field-screening soil samples from the excavation floors and sidewalls using a photoionization detector (PID) and Hach® chloride QuanTab® test strips. Based on field screening, the Wash Area excavation was advanced to a maximum depth of 4 feet bgs. Once field-screening results indicated that impacted soils had been removed, notice was given to the NMOCD and BLM to collect confirmation floor and sidewall samples from the Wash Area excavation. Confirmation samples were collected by WSP on August 31, 2020 and consisted of five-point composite samples collected every 400 square feet from the excavation floor and sidewalls. Photograph 4 was taken from the Wash Area excavation inside the tributary wash.

The samples were handled and transported at or below 4 degrees Celsius (°C) under chain-of-custody procedures to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico for analysis of BTEX (benzene, toluene, ethylbenzene, and xylene compounds) by United States Environmental Protection Agency (EPA) method 8021, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), TPH-motor oil range organics (MRO) by EPA Method 8015, and chloride by EPA method 300.0. Sampling areas for the Wash Area excavation are presented on Figure 5.

Based on the laboratory analytical data, all confirmation sample results were either non-detect or below the NMOCD Table 1 Closure Criteria with the exception of two sidewall samples (“Wash SW08” and “Wash SW10”). Additional soil was removed from these areas and confirmation samples were collected on September 3, 2020 to confirm the successful removal of impacted soil. Results from samples “Wash SW08-B” and “Wash SW10-B” were in compliance with Table 1 Closure Criteria. Based on the confirmation-sample results collected from the Wash Area, all impacted soil was successfully removed to below Table 1 Closure Criteria. In total, 17 floor and 17 sidewall samples were collected from the Wash Area excavation. Analytical results are summarized in Table 1. Laboratory analytical results are included in Appendix C.

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#### 2.1.2 SOUTHWEST AREA REMEDIAL EXCAVATION

Once the Wash excavation was completed, impacted soil was removed from the Southwest Area. WSP collected field-screening soil samples as described above from the Southwest Area excavation floors and sidewalls to assess

the progress of the excavation. Based on field screening, the Southwest Area excavation was advanced to a maximum depth of 6 feet bgs. Once field-screening results indicated that impacted soils had been removed, notice was again given to the NMOCD and BLM to collect confirmation floor and sidewall samples. Confirmation samples were collected by WSP on September 3, 2020 and consisted of five-point composite samples collected every 400 square feet from the excavation floor and sidewalls. Soil samples were collected in the same manner described in Section 2.1.1 above. Samples were submitted to Hall for analysis of BTEX, TPH-GRO, TPH-DRO, TPH-MRO, and chloride. Sampling areas for the Southwest Area excavation are presented on Figure 6.

Based on the analytical data, all confirmation sample results were either non-detect or below the NMOCD Table 1 Closure Criteria, with the exception of three sidewall samples (“SW Area SW01”, “SW Area SW03”, and SW Area SW04”). Because a soil stockpile was located just to the north of this area, additional soil could not be immediately removed (shown on Photograph 5). Based on the soil-sample results collected from the Southwest Area, the majority of the impacted soil was successfully removed to below Table 1 Closure Criteria. However, the three sidewall samples exceeding the chloride Table 1 Closure Criteria were all located along the northern sidewall of the excavation and ranged in concentration from 630 to 1,000 mg/kg. In total, 14 floor and nine (9) sidewall samples were collected from the Southwest Area excavation. Analytical results are summarized in Table 2. Laboratory analytical results are included in Appendix C.

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## 2.2 SOIL DELINEATION ACTIVITIES

To vertically and laterally delineate soil impacts remaining on the well pad, WSP returned to the Site on October 19 and 20, 2020 and used a hollow-stem auger drill rig and to advance 11 borings to depths of 15 feet bgs. In areas inaccessible to the drill rig, WSP advanced three (3) hand-auger borings until refusal was encountered. Borings were positioned to supplement existing information and soil data previously collected at the Site. Several soil borings were advanced in locations near the points of release and/or locations with obvious soil staining to vertically delineate soil impacts on the well pad. Additional borings were positioned in locations outside of obvious impacts to laterally delineate the release. Boring locations are presented on Figure 7.

Continuous soil samples were collected and logged by an WSP geologist and described using the Unified Soil Classification System (USCS). Soil was inspected for visual staining and the presence or absence of odor. The soil headspace was field screened at 2.5-foot intervals using a PID to monitor for the presence of organic vapors. In addition, Hach® Quantab® titrator strips were utilized to field screen for chloride in the soil at 2.5-foot intervals. Soil samples were collected from the most impacted soil interval based on field-screening results and from the terminus of each boring. Soil samples were collected directly into pre-cleaned jars. The samples were handled and transported under chain-of-custody procedures to Hall and analyzed for BTEX, TPH-GRO, TPH-DRO, TPH-MRO, and chloride. Drilling and sampling equipment were decontaminated prior to each use. Boring logs are included as Appendix D.

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### 2.2.1 SOIL BORING RESULTS

Based on the laboratory analytical data, the majority of impacted soil remaining at the Site is located within the secondary containment. Surface-soil impacts extend to the east, south, and west of the containment; however, these impacts are estimated to be limited to the top 2 to 4 feet of soil and do not extend beyond the obvious surface staining (as indicated by data from the outer-most borings). TPH and chloride concentrations above NMOCD Table 1 Closure Criteria within the secondary containment extend to depths of at least 9 feet bgs. Because of access restrictions, WSP boring BH12 and a boring advanced by Enduring/Envirotech, Inc. (SB-5, drilled in September 2020) were located near the points of release using a hand auger. Because of the shallow bedrock at the site, the hand-auger borings were unable to achieve greater depths.

Analytical results from the WSP delineation effort, as well as data collected by Enduring/Envirotech, Inc., are summarized in Table 3. Analytical data from these events are also presented on Figure 7.

## 3 PROPOSED REMEDIATION WORK PLAN

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### 3.1 PREVIOUS SITE ACTIVITIES

As described in Sections 2.1 and 2.2, Whiptail conducted emergency remedial excavations in the impacted areas located off of the well pad. Whiptail was able to remove a majority of the off-pad impacted soils. Only a limited volume of chloride-impacted soil remains in the Southwest Area along the north sidewall of the previous excavation. In total, approximately 875 cubic yards of soil was removed from the Wash Area excavation and 1,200 cubic yards of soil was removed from the Southwest Area excavation. In addition, soil-delineation activities have confirmed that soil impacts have not migrated beyond the obvious surface staining present at the Site (Photograph 6 presents an example of chloride staining remaining at the Site). As such, the lateral extent of impacted soil has been delineated.

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### 3.2 PROPOSED WORK PLAN

Based on the remedial excavation and delineation results described in this report, WSP proposes continued excavation of impacted soil at the Site. Excavation has proven to be effective in removing the TPH and chloride-impacted soil. Figure 8 presents the approximate vertical and lateral excavation extents required to remove remaining impacted soil. Based on this interpretation, the remaining release footprint measures approximately 17,000 square feet, requiring approximately 2,000 cubic yards of soil to be excavated and disposed off-site. The excavation will address on-pad soil impacts, as well as the chloride-impacted soil remaining along the north sidewall of the Southwest Area excavation. WSP will continue to field screen as excavation proceeds to determine the final required extent.

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#### 3.2.1 PROPOSED SAMPLING

Once field-screening results indicate that impacted soils have been removed, notice will be given to the NMOCD and BLM at least two days before collecting confirmation floor and sidewall samples from the excavation. Due to the large size of the affected area, WSP proposes increasing the confirmation-sampling frequency to collecting one 5-point composite sample for each 400 square-foot area from the excavation sidewalls and floor (as previously approved by the NMOCD for the Wash and Southwest Area excavations). The 5-point composite samples will be collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag, and homogenizing the samples by thoroughly mixing. The samples will be put into pre-cleaned jars and transported under chain-of-custody procedures to Hall for analysis of BTEX, TPH-GRO, TPH-DRO, TPH-MRO, and chloride.

Following the successful removal of impacted soil, the site will be backfilled and off-pad locations will be reclaimed in accordance with 19.15.29.13 NMAC.

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#### 3.2.2 REMEDIATION SCHEDULE

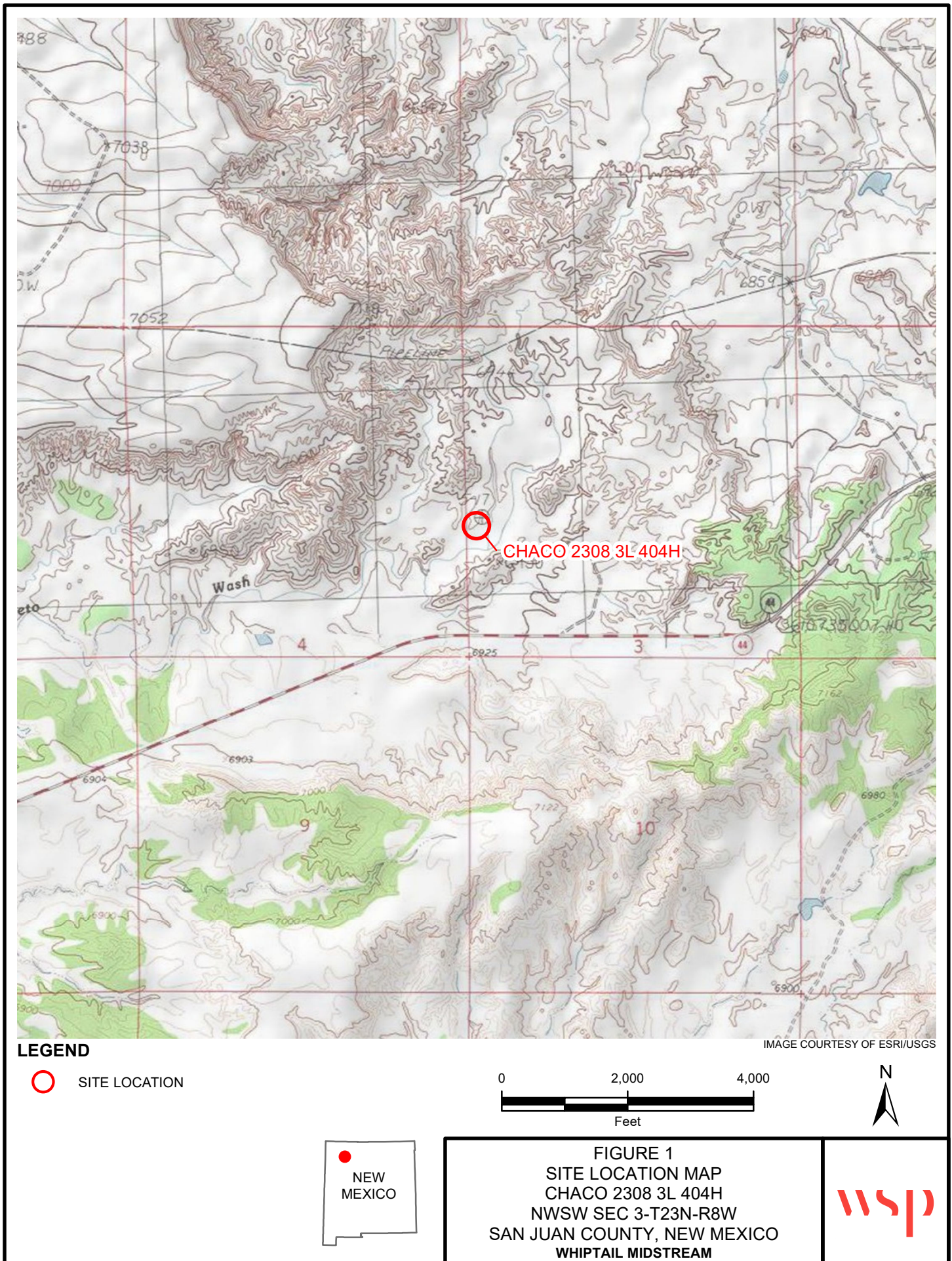
Whiptail and Enduring are motivated to finish remediating impacted soils at the Site prior to winter and potentially adverse conditions. As such, the equipment and aboveground storage tanks located at the Site are currently being removed to access remaining impacted soil. Excavation will begin once access is obtained, likely by the end of November 2020. Remediation is anticipated to be completed within 90 days of this document submittal.

## 4 REFERENCES

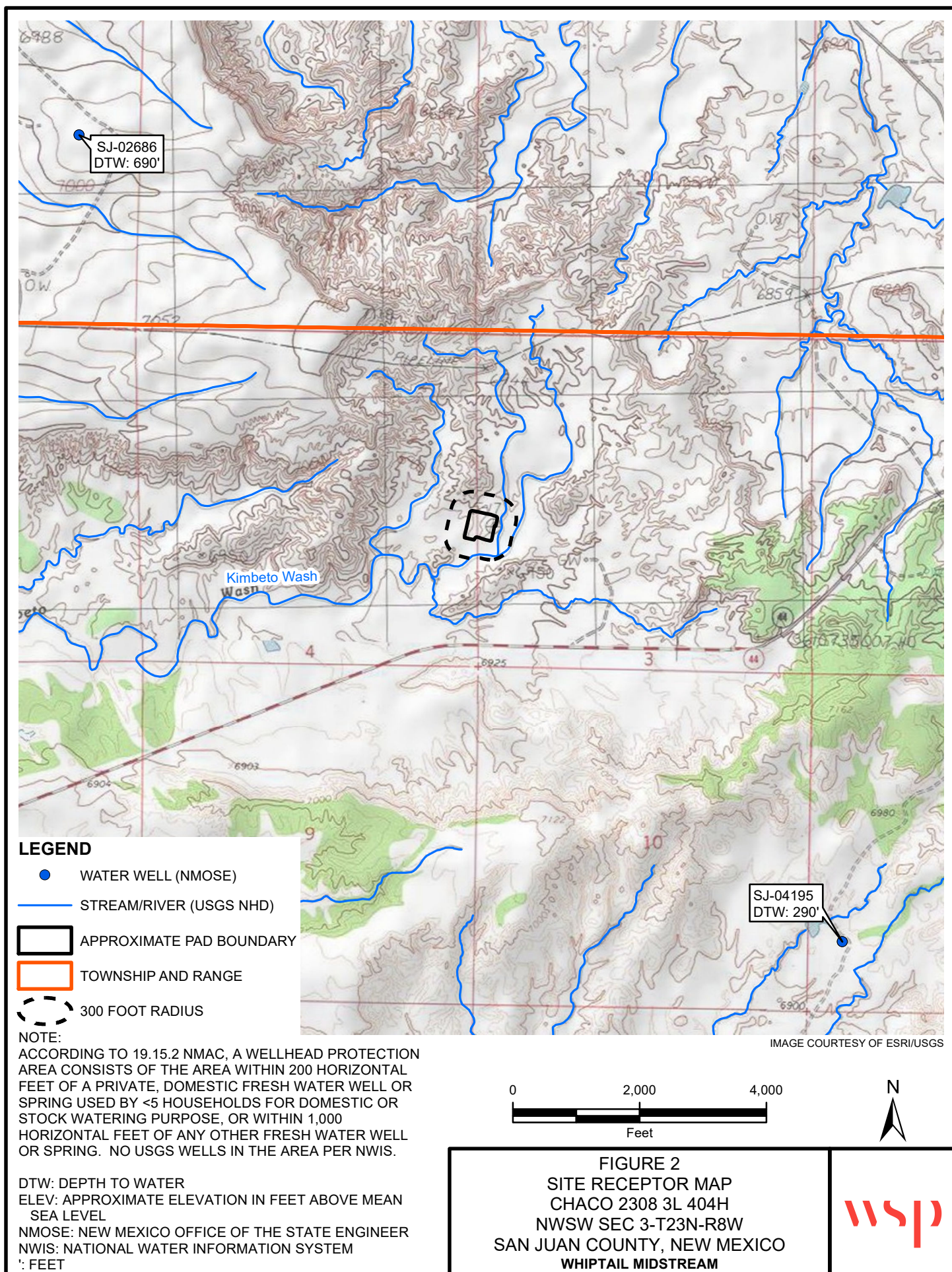
Stone, W., Lyford, F., Frenzel, P., Mizell, N., & Padgett, E. (1983). *Hydrogeology and Water Resources of San Juan Basin, New Mexico*. New Mexico Bureau of Mines & Mineral Resources.

## FIGURES

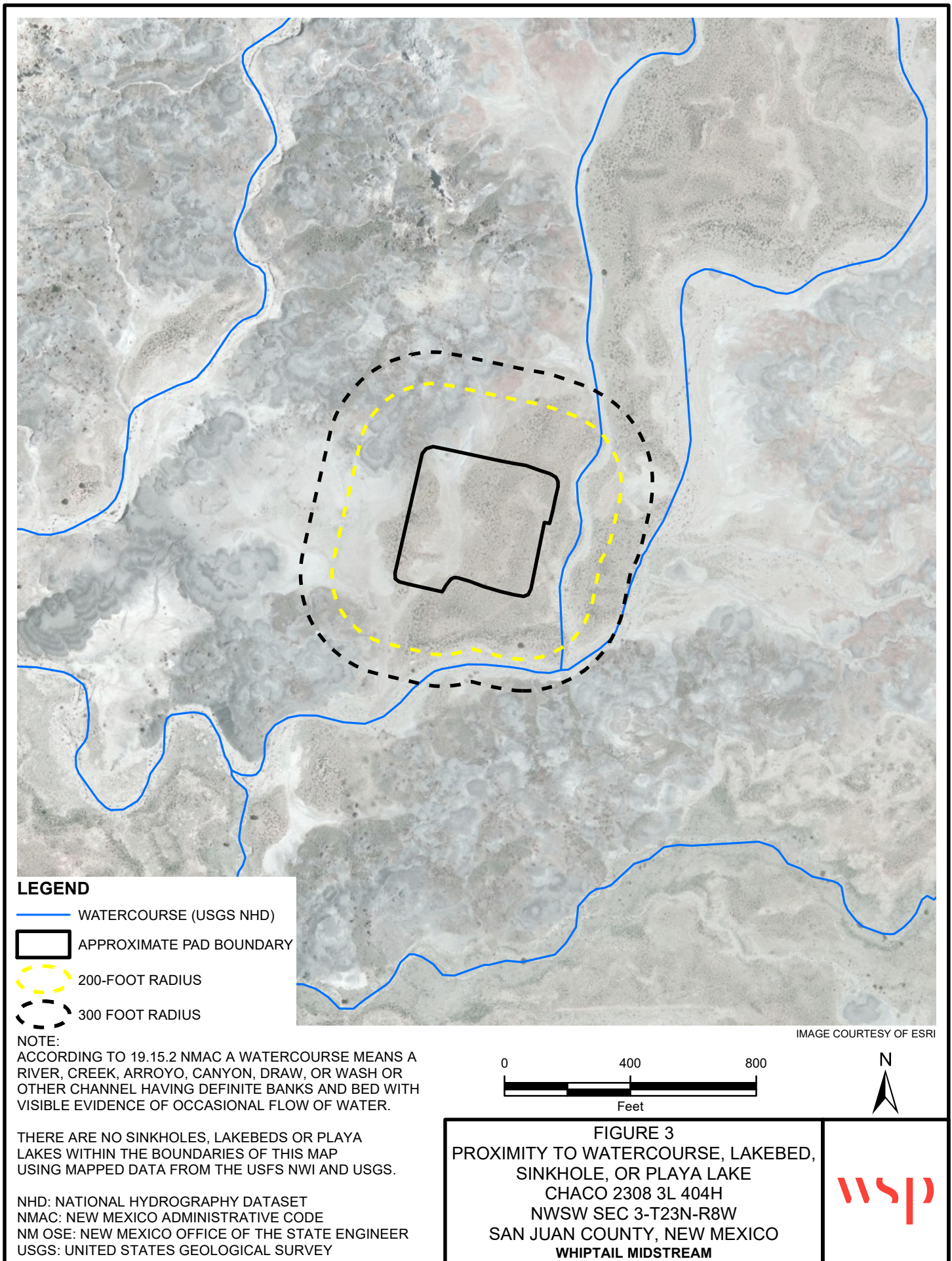




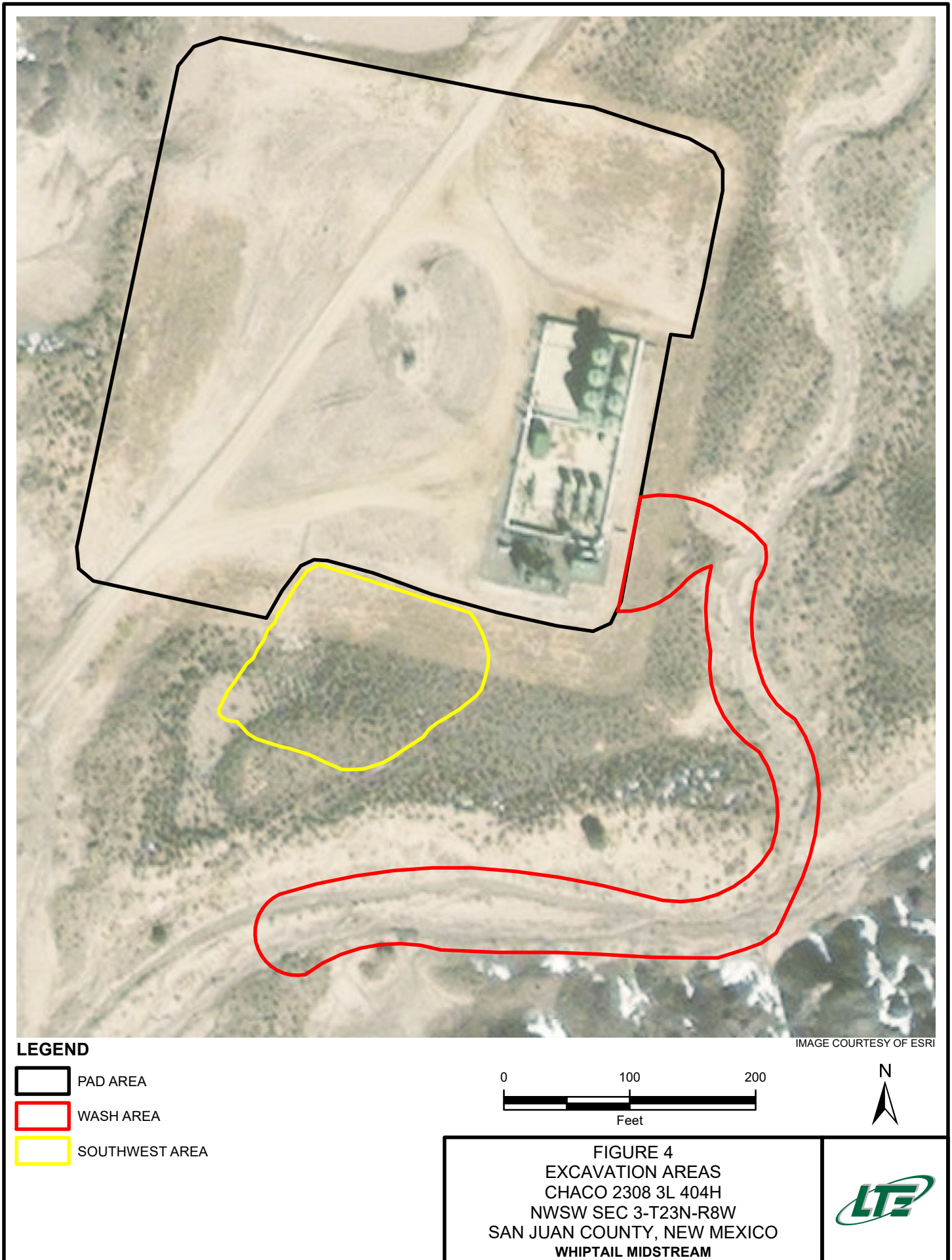












P:\Whiptail Midstream LLC\GIS\MXD\099520004\_CHACO 2308 3L 405H\099520004\_FIG03\_EXC AREAS\_2020.mxd



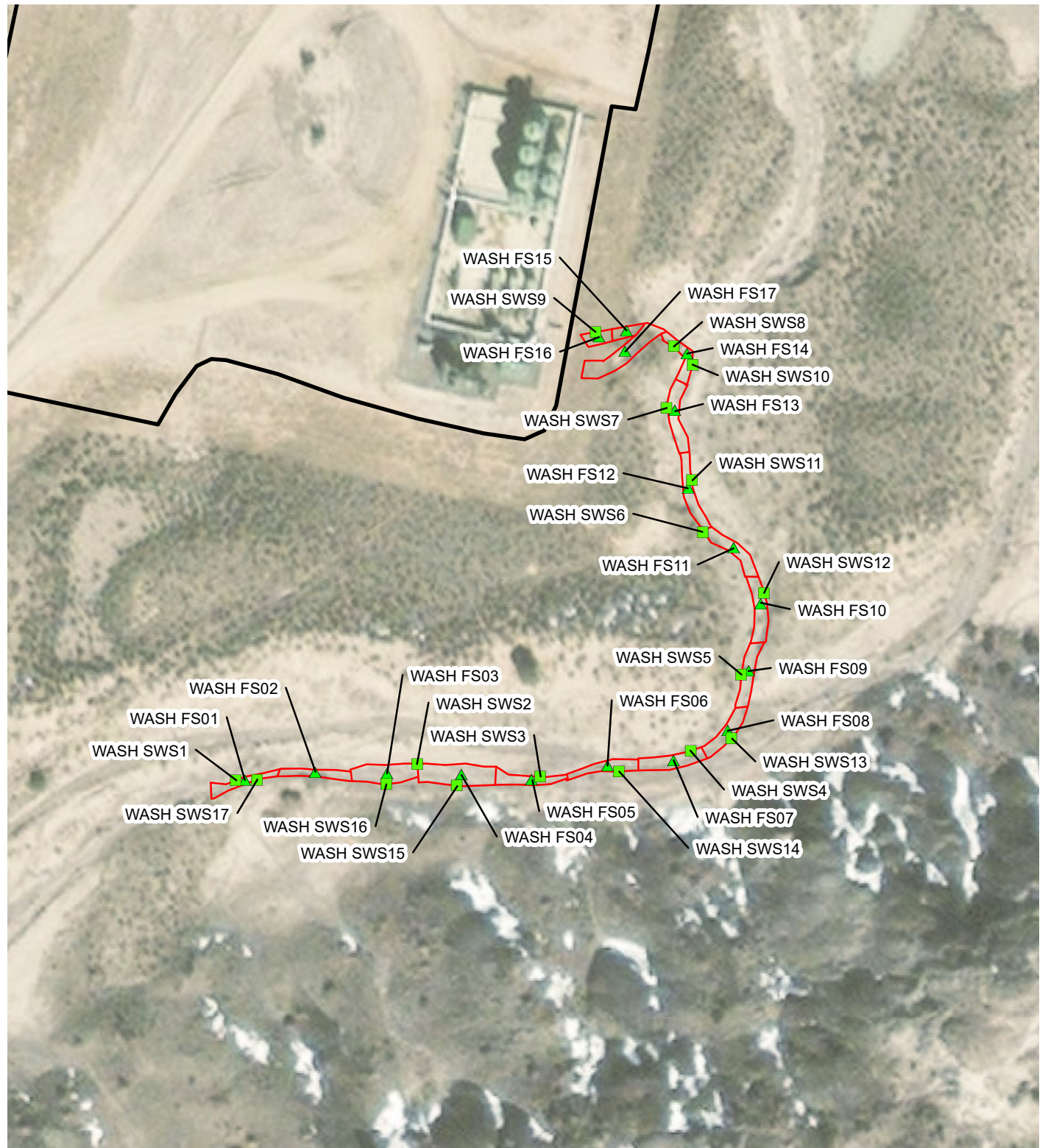
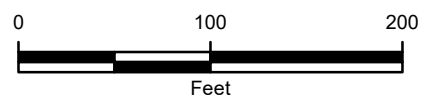


IMAGE COURTESY OF ESRI

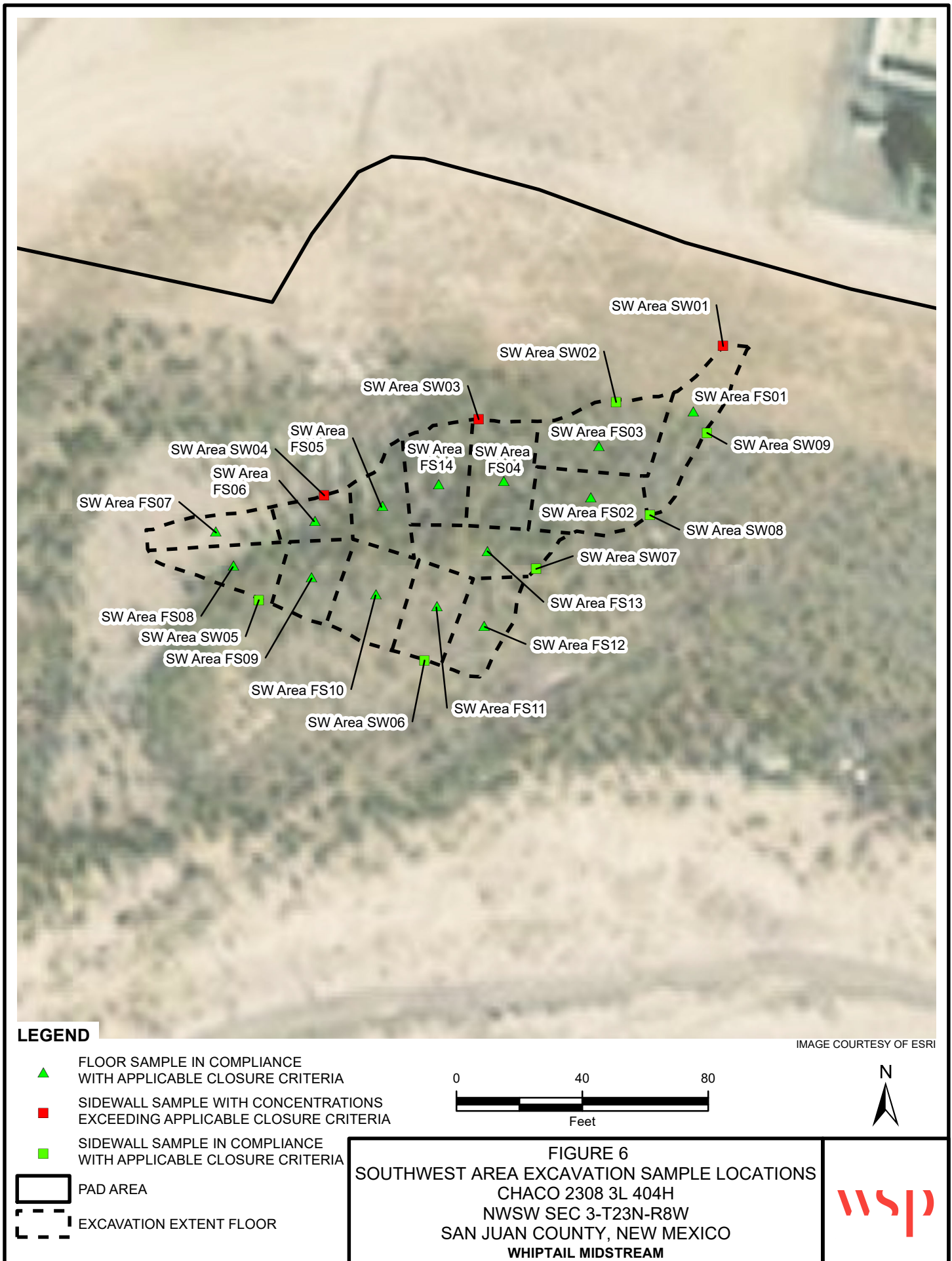
**LEGEND**

- ▲ FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- WASH
- PAD AREA

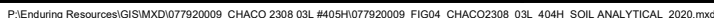


**FIGURE 5**  
**WASH EXCAVATION SAMPLE LOCATIONS**  
 CHACO 2308 3L 404H  
 NWSW SEC 3-T23N-R8W  
 SAN JUAN COUNTY, NEW MEXICO  
**WHIPTAIL MIDSTREAM**

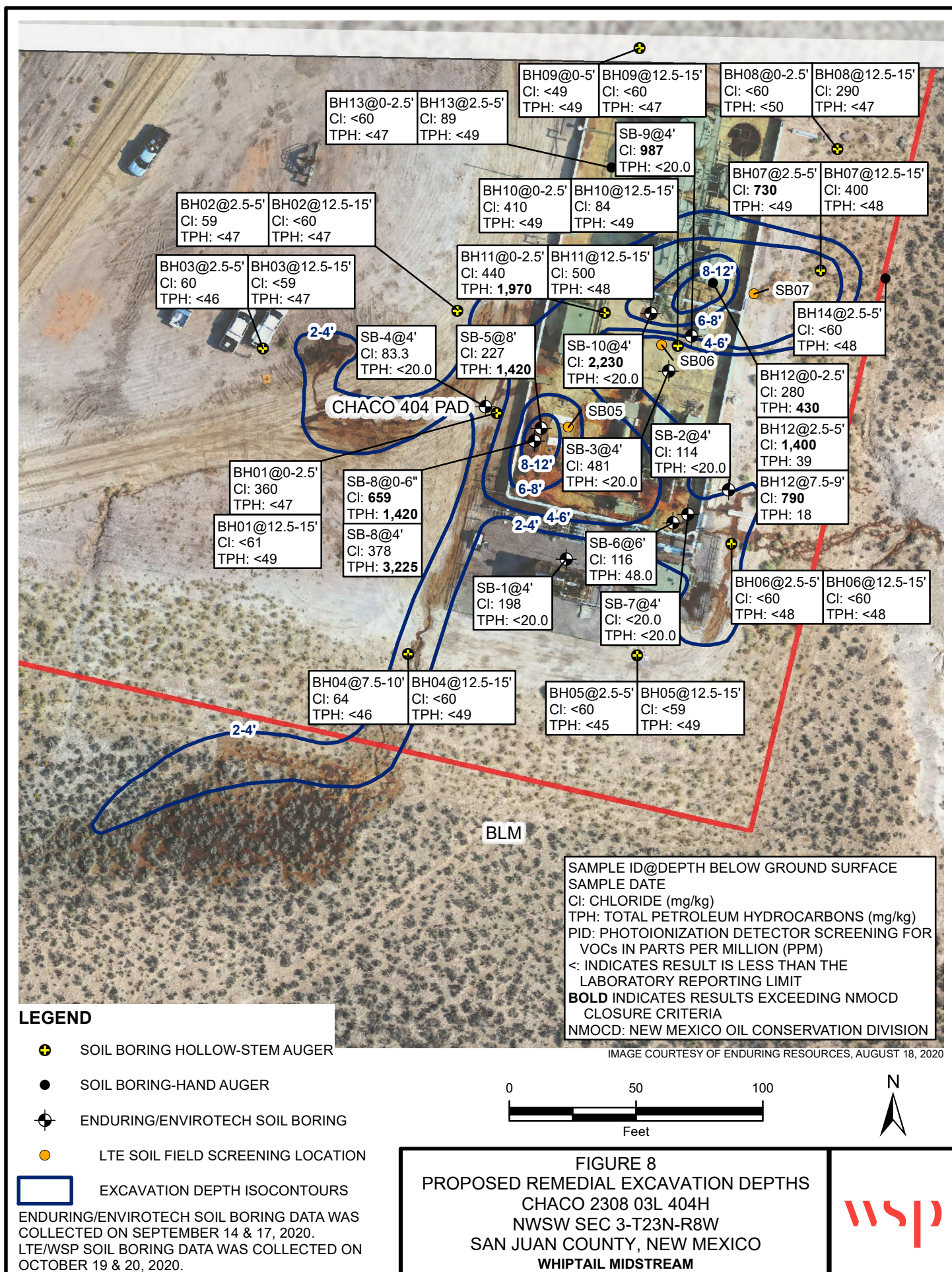












# TABLES

Table 1

Wash Area Excavation Soil Analytical Results  
CHACO 2308 03L #404H  
San Juan County, New Mexico

Sample ID	Sample Date	Sample Depth (feet)	Chloride (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-MRO (mg/kg)	TPH (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			600	10	50	NE	NE	NE	100
Excavation Floor Samples									
Wash FS01	8/31/2020	4'	<60	<0.022	<0.202	<9.0	<4.5	<45	<58.5
Wash FS02	8/31/2020	4'	<59	<0.021	<0.189	<9.3	<4.2	<47	<60.5
Wash FS03	8/31/2020	4'	<59	<0.025	<0.227	<9.9	<5.1	<49	<64.0
Wash FS04	8/31/2020	4'	<60	<0.026	<0.228	<9.6	<5.1	<48	<62.7
Wash FS05	8/31/2020	4'	<59	<0.027	<0.245	<9.4	<5.4	<47	<61.8
Wash FS06	8/31/2020	4'	<60	<0.019	<0.167	<9.0	<3.7	<45	<57.7
Wash FS07	8/31/2020	4'	<60	<0.021	<0.190	<9.7	<4.2	<49	<62.9
Wash FS08	8/31/2020	4'	<60	<0.022	<0.199	<9.4	<4.4	<47	<60.8
Wash FS09	8/31/2020	4'	<60	<0.020	<0.181	<9.2	<4.0	<46	<59.2
Wash FS10	8/31/2020	4'	<60	<0.025	<0.221	<9.4	<4.9	<47	<61.3
Wash FS11	8/31/2020	4'	<59	<0.023	<0.208	<9.3	<4.6	<46	<59.9
Wash FS12	8/31/2020	4'	<61	<0.021	<0.189	<9.7	<4.2	<48	<61.9
Wash FS13	8/31/2020	3'	<60	<0.018	<0.159	<9.6	<3.5	<48	<61.1
Wash FS14	8/31/2020	3'	<60	<0.019	<0.170	<9.1	<3.8	<45	<57.9
Wash FS15	8/31/2020	3'	250	<0.028	<0.250	24	<5.6	<48	24
Wash FS16	8/31/2020	2.5'	<60	<0.019	<0.170	<9.8	<3.8	<49	<62.6
Wash FS17	8/31/2020	2.5'	150	<0.018	<0.162	48	<3.6	<48	48
Excavation Sidewall Samples									
Wash SW01	8/31/2020	1' - 3'	<60	<0.026	<0.230	<9.5	<5.2	<47	<61.7
Wash SW02	8/31/2020	0.5' - 2'	<60	<0.020	<0.183	<9.9	<4.1	<50	<64
Wash SW03	8/31/2020	1' - 3'	<59	<0.023	<0.211	<9.1	<4.7	<46	<59.8
Wash SW04	8/31/2020	0.5' - 3'	<60	<0.027	<0.245	33	<5.4	<48	33
Wash SW05	8/31/2020	0.5' - 3'	<60	<0.028	<0.248	<9.3	<5.5	<47	<61.8
Wash SW06	8/31/2020	0.5' - 3'	<60	<0.019	<0.168	<9.2	<3.7	<46	<58.9
Wash SW07	8/31/2020	0.5' - 2.5'	<60	<0.019	<0.175	<9.1	<3.9	<45	<58.0
Wash SW08 (1)	8/31/2020	0.5' - 2'	490	<0.10	<0.93	1,200	<21	910	2,110
Wash SW08-B	9/3/2020	0.5' - 2'	<60	<0.018	<0.162	<9.4	<3.6	<47	<60.0
Wash SW09	8/31/2020	0.5' - 2'	<60	<0.021	<0.192	17	<4.3	<45	17
Wash SW10 (1)	8/31/2020	0.5' - 3'	180	<0.019	<0.174	100	<3.9	160	260
Wash SW10-B	9/3/2020	0.5' - 3'	<60	<0.018	<0.163	<9.7	<3.6	<48	<61.3
Wash SW11	8/31/2020	1' - 4'	68	<0.020	<0.177	<9.5	<3.9	<48	<61.4
Wash SW12	8/31/2020	1' - 3.5'	<60	<0.022	<0.201	<8.9	<4.5	<44	<57.4
Wash SW13	8/31/2020	0.5' - 3'	<60	<0.021	<0.186	<8.9	<4.1	<44	<57.0
Wash SW14	8/31/2020	1' - 3'	<60	<0.023	<0.208	<9.4	<4.6	<47	<61.0
Wash SW15	8/31/2020	1' - 3.5'	<61	<0.021	<0.185	<9.3	<4.1	<47	<60.4
Wash SW16	8/31/2020	0.5' - 3'	<60	<0.023	<0.208	<9.8	<4.6	<49	<63.4
Wash SW17	8/31/2020	1' - 3'	<60	<0.020	<0.183	14	<4.1	<47	14

Notes:  
(1) - Soil was subsequently removed from the sidewall in this location and resampled. Sidewall samples collected after additional soil removal are indicated with a "B".  
mg/kg - milligrams per kilograms  
DRO - diesel range organics  
GRO - gasoline range organics  
MRO - motor oil range organics  
TPH- total petroleum hydrocarbons  
NE - Not Established  
< indicates result is less than the stated laboratory method practical quantitation limit  
**BOLD** indicates results exceed the higher of the background sample result or practical quantitation limit



Table 2

Southwest Area Excavation Soil Analytical Results  
CHACO 2308 03L #404H  
San Juan County, New Mexico

Sample ID	Sample Date	Sample Depth (feet)	Chloride (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-MRO (mg/kg)	TPH (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			600	10	50	NE	NE	NE	100
Excavation Floor Samples									
SW Area FS01	9/3/2020	6'	220	<0.025	<0.225	<9.2	<5.0	<46	<60.2
SW Area FS02	9/3/2020	6'	540	<0.025	<0.225	<9.3	<5.0	<46	<60.3
SW Area FS03	9/3/2020	6'	460	<0.023	<0.208	<9.1	<4.6	<46	<59.7
SW Area FS04	9/3/2020	6'	230	<0.025	<0.225	<9.1	<5.0	<46	<60.1
SW Area FS05	9/3/2020	4.5'	490	<0.025	<0.225	<9.1	<5.0	<46	<60.1
SW Area FS06	9/3/2020	2'	<59	<0.026	<0.230	<9.9	<5.2	<49	<64.1
SW Area FS07	9/3/2020	2'	<60	<0.023	<0.203	<9.6	<4.5	<48	<62.1
SW Area FS08	9/3/2020	2'	<61	<0.023	<0.208	<9.9	<4.6	<49	<63.5
SW Area FS09	9/3/2020	2'	<61	<0.019	<0.167	<9.4	<3.7	<47	<60.1
SW Area FS10	9/3/2020	2'	<60	<0.021	<0.188	<9.4	<4.2	<47	<60.6
SW Area FS11	9/3/2020	2'	<60	<0.021	<0.185	<9.3	<4.1	<47	<60.4
SW Area FS12	9/3/2020	2'	<60	<0.020	<0.176	<9.4	<3.9	<47	<60.3
SW Area FS13	9/3/2020	6'	<60	<0.024	<0.216	<9.6	<4.8	<48	<62.4
SW Area FS14	9/3/2020	6'	150	<0.026	<0.230	<9.5	<5.2	<48	<62.7
Excavation Sidewall Samples									
SW Area SW01	9/3/2020	1' - 6'	<b>1,000</b>	<0.018	<0.165	<9.7	<3.7	<48	<61.4
SW Area SW02	9/3/2020	1' - 6'	280	<0.019	<0.168	<9.7	<3.7	<48	<61.4
SW Area SW03	9/3/2020	1' - 6'	<b>630</b>	<0.020	<0.181	<9.5	<4.0	<47	<60.5
SW Area SW04	9/3/2020	0.5' - 2'	<b>1,000</b>	<0.020	<0.181	<9.7	<4.0	<48	<61.7
SW Area SW05	9/3/2020	0.5' - 2'	<60	<0.025	<0.225	<9.2	<5.0	<46	<60.2
SW Area SW06	9/3/2020	0.5' - 2'	<60	<0.025	<0.225	<9.8	<5.0	<49	<63.8
SW Area SW07	9/3/2020	0.5' - 2'	<60	<0.025	<0.225	<9.8	<5.0	<49	<63.8
SW Area SW08	9/3/2020	0.5' - 4'	<60	<0.025	<0.225	<9.6	<5.0	<48	<62.6
SW Area SW09	9/3/2020	1' - 6'	270	<0.025	<0.225	<9.4	<5.0	<47	<61.4

Notes:

- mg/kg - milligrams per kilograms
- DRO - diesel range organics
- GRO - gasoline range organics
- MRO - motor oil range organics
- TPH- total petroleum hydrocarbons
- NE - Not Established
- < indicates result is less than the stated laboratory method practical quantitation limit
- BOLD** indicates results exceed the higher of the background sample result or practical quantitation limit



Table 3  
Soil Delineation Analytical Results  
CHACO 2308 03L #404H  
San Juan County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Chloride Field Screening (ppm)	Chloride (mg/kg)	PID Field Screening (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)	TPH (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			NE	600	NE	10	NE	NE	NE	50	NE	NE	NE	100
Enduring/Envirotech Soil Borings														
SB-1 @ 4'	9/14/2020	4	---	198	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0
SB-2 @ 4'	9/14/2020	4	---	114	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0
SB-3 @ 4'	9/14/2020	4	---	481	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0
SB-4 @ 4'	9/14/2020	4	---	83.3	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0
SB-5 @ 8'	9/14/2020	8	---	227	---	<0.0250	<0.0250	<0.0250	0.735	0.735	<20.0	989	429	1,420
SB-6 @ 6'	9/14/2020	6	---	116	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	48.0	<50.0	48.0
SB-7 @ 4'	9/14/2020	4	---	<20.0	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0
SB-8 @ 0-6"	9/17/2020	0 - 0.5	---	659	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	2,130	961	3,091
SB-8 @ 4'	9/17/2020	4	---	378	---	0.0295	0.213	0.125	2.18	2.55	39.8	2,300	885	3,225
SB-9 @ 4'	9/17/2020	4	---	987	---	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0
SB-10 @ 4'	9/17/2020	4	---	2,230	---	0.0299	<0.0250	<0.0250	<0.0250	0.0299	<20.0	<25.0	<50.0	<20.0
Background	9/17/2020	---	---	<20.0	---	---	---	---	---	---	---	---	---	---
WSP Soil Borings														
BH01@0-2.5'	10/19/2020	0 - 2.5	316	360	3.5	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.4	<47	<47
---	10/19/2020	2.5 - 5	<120	---	4.6	---	---	---	---	---	---	---	---	---
---	10/19/2020	5 - 7.5	<120	---	3.5	---	---	---	---	---	---	---	---	---
---	10/19/2020	7.5 - 10	<120	---	4.1	---	---	---	---	---	---	---	---	---
---	10/19/2020	10 - 12.5	<120	---	---	---	---	---	---	---	---	---	---	---
BH01@12.5-15'	10/19/2020	12.5 - 15	<120	<61	---	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.7	<49	<49
---	10/19/2020	0 - 2.5	120	---	1.9	---	---	---	---	---	---	---	---	---
BH02@2.5-5'	10/19/2020	2.5 - 5	120	59	3.2	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.5	<47	<47
---	10/19/2020	5 - 7.5	<120	---	2.2	---	---	---	---	---	---	---	---	---
---	10/19/2020	7.5 - 10	<120	---	2.1	---	---	---	---	---	---	---	---	---
---	10/19/2020	10 - 12.5	<120	---	1.1	---	---	---	---	---	---	---	---	---
BH02@12.5-15'	10/19/2020	12.5 - 15	<120	<60	0.8	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.4	<47	<47
---	10/19/2020	0 - 2.5	<120	---	1.0	---	---	---	---	---	---	---	---	---
BH03@2.5-5'	10/19/2020	2.5 - 5	<120	60	1.7	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.3	<46	<46
---	10/19/2020	5 - 7.5	<120	---	0.8	---	---	---	---	---	---	---	---	---
---	10/19/2020	7.5 - 10	<120	---	0.7	---	---	---	---	---	---	---	---	---
---	10/19/2020	10 - 12.5	<120	---	1.0	---	---	---	---	---	---	---	---	---
BH03@12.5-15'	10/19/2020	12.5 - 15	<120	<59	0.8	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<0.095	<47	<47
---	10/19/2020	0 - 2.5	<120	---	1.3	---	---	---	---	---	---	---	---	---
---	10/19/2020	2.5 - 5	<120	---	1.6	---	---	---	---	---	---	---	---	---
---	10/19/2020	5 - 7.5	<120	---	2.5	---	---	---	---	---	---	---	---	---
BH04@7.5-10'	10/19/2020	7.5 - 10	<120	64	4.0	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.3	<46	<46
---	10/19/2020	10 - 12.5	<120	---	0.9	---	---	---	---	---	---	---	---	---
BH04@12.5-15'	10/19/2020	12.5 - 15	<120	<60	0.9	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<49
---	10/19/2020	0 - 2.5	<120	---	4.0	---	---	---	---	---	---	---	---	---
BH05@2.5-5'	10/19/2020	2.5 - 5	<120	<60	5.1	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.0	<45	<45
---	10/19/2020	5 - 7.5	<120	---	1.8	---	---	---	---	---	---	---	---	---
---	10/19/2020	7.5 - 10	<120	---	1.6	---	---	---	---	---	---	---	---	---
---	10/19/2020	10 - 12.5	<120	---	1.8	---	---	---	---	---	---	---	---	---
BH05@12.5-15'	10/19/2020	12.5 - 15	<120	<59	1.3	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.8	<49	<49
---	10/19/2020	0 - 2.5	<120	---	1.3	---	---	---	---	---	---	---	---	---
BH06@2.5-5'	10/19/2020	2.5 - 5	<120	<60	33.4	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.7	<48	<48
---	10/19/2020	5 - 7.5	<120	---	12.8	---	---	---	---	---	---	---	---	---
---	10/19/2020	7.5 - 10	<120	---	6.2	---	---	---	---	---	---	---	---	---
---	10/19/2020	10 - 12.5	<120	---	3.1	---	---	---	---	---	---	---	---	---
BH06@12.5-15'	10/19/2020	12.5 - 15	<120	<60	1.7	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.6	<48	<48

Table 3  
Soil Delineation Analytical Results  
CHACO 2308 03L #404H  
San Juan County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Chloride Field Screening (ppm)	Chloride (mg/kg)	PID Field Screening (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)	TPH (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			NE	600	NE	10	NE	NE	NE	50	NE	NE	NE	100
--- BH07@2.5-5'	10/19/2020	0 - 2.5	364	---	1.2	---	---	---	---	---	---	---	---	---
	10/20/2020	2.5 - 5	748	<b>730</b>	5.1	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<49
	10/19/2020	5 - 7.5	268	---	3.6	---	---	---	---	---	---	---	---	---
	10/19/2020	7.5 - 10	<120	---	3.2	---	---	---	---	---	---	---	---	---
	10/19/2020	10 - 12.5	---	---	---	---	---	---	---	---	---	---	---	---
BH07@12.5-15'	10/20/2020	12.5 - 15	<120	400	2.8	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.6	<48	<48
BH08@0-2.5'	10/20/2020	0 - 2.5	<120	<60	1.8	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<10	<50	<50
	10/19/2020	2.5 - 5	<120	---	1.6	---	---	---	---	---	---	---	---	---
	10/19/2020	5 - 7.5	<120	---	2.2	---	---	---	---	---	---	---	---	---
	10/19/2020	7.5 - 10	<120	---	2.1	---	---	---	---	---	---	---	---	---
	10/19/2020	10 - 12.5	<120	---	1.8	---	---	---	---	---	---	---	---	---
BH08@12.5-15'	10/20/2020	12.5 - 15	<120	290	1.3	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.4	<47	<47
BH09@0-5'	10/20/2020	0 - 5'	<120	<49	0.8	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.9	<49	<49
	10/19/2020	5 - 7.5	---	---	---	---	---	---	---	---	---	---	---	---
	10/19/2020	7.5 - 10	<120	---	2.4	---	---	---	---	---	---	---	---	---
	10/19/2020	10 - 12.5	---	---	---	---	---	---	---	---	---	---	---	---
	10/20/2020	12.5 - 15	<120	<60	1.6	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.4	<47	<47
BH10@0-2.5'	10/20/2020	0 - 2.5	268	410	8.2	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.8	<49	<49
	10/19/2020	2.5 - 5	224	---	7.8	---	---	---	---	---	---	---	---	---
	10/19/2020	5 - 7.5	<120	---	5.9	---	---	---	---	---	---	---	---	---
	10/19/2020	7.5 - 10	<120	---	5.6	---	---	---	---	---	---	---	---	---
	10/19/2020	10 - 12.5	<120	---	4.2	---	---	---	---	---	---	---	---	---
BH10@12.5-15'	10/20/2020	12.5 - 15	<120	84	3.6	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.7	<49	<49
BH11@0-2.5'	10/20/2020	0 - 2.5	688	440	114.3	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	1,000	970	<b>1,970</b>
	10/19/2020	2.5 - 5	<120	---	42.8	---	---	---	---	---	---	---	---	---
	10/19/2020	5 - 7.5	<120	---	39.7	---	---	---	---	---	---	---	---	---
	10/19/2020	7.5 - 10	<120	---	37.3	---	---	---	---	---	---	---	---	---
	10/19/2020	10 - 12.5	<120	---	19.5	---	---	---	---	---	---	---	---	---
BH11@12.5-15'	10/20/2020	12.5 - 15	<120	500	12.3	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.5	<48	<48
BH12@0-2.5'	10/20/2020	0 - 2.5	120	280	315	<0.048	<0.096	<0.096	<0.19	<0.19	<9.6	230	200	<b>430</b>
BH12@2.5-5'	10/20/2020	2.5 - 5	1,740	<b>1,400</b>	244	0.053	<0.097	<0.097	0.28	0.333	11	28	<47	39
---	10/19/2020	5 - 7.5	412	---	35.2	---	---	---	---	---	---	---	---	---
BH12@7.5-9'	10/20/2020	7.5 - 9	184	<b>790</b>	153	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	18	<50	18
BH13@0-2.5'	10/20/2020	0 - 2.5	<120	<60	2.3	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.4	<47	<47
BH13@2.5-5'	10/20/2020	2.5 - 5	<120	89	1.8	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.9	<49	<49
BH14@2.5-5'	10/20/2020	2.5 - 5	---	<60	---	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.7	<48	<48

Notes:  
mg/kg - milligrams per kilograms  
DRO - diesel range organics  
GRO - gasoline range organics  
MRO - motor oil range organics  
NE - Not Established  
PID - photoionization detector  
TPH- total petroleum hydrocarbons  
-- - dashes indicate field screening sample only, no sample collected for laboratory analysis  
< indicates result is less than the stated laboratory method practical quantitation limit  
**BOLD** indicates results exceed the higher of the background sample result or practical quantitation limit

# PHOTOGRAPHIC LOG



## PHOTOGRAPHIC LOG

Whiptail Midstream	Chaco 2308 03L #404H SAN JUAN COUNTY, NEW MEXICO	TE077920009
--------------------	---	-------------


Photo No.	Date	
1	August 18, 2020	
Residual crude and produced water inside secondary containment. View looking south from southeast corner of secondary containment.		

Photo No.	Date	
2	August 18, 2020	
Release path to the south of the secondary containment. Crude/produced water migrated into the vegetation south of the well pad. View looking south from southwest corner of secondary containment.		





PHOTOGRAPHIC LOG		
Whiptail Midstream	Chaco 2308 03L #404H SAN JUAN COUNTY, NEW MEXICO	TE077920009



Photo No.	Date	
3	August 18, 2020	
Release path to the west of the secondary containment. Crude/produced water migrated into the well pad. View looking north from southwest corner of secondary containment.		

Photo No.	Date	
4	August 26, 2020	
Wash Area excavation inside the tributary wash. View looking northeast.		





PHOTOGRAPHIC LOG		
Whiptail Midstream	Chaco 2308 03L #404H SAN JUAN COUNTY, NEW MEXICO	TE077920009


Photo No.	Date	
5	August 26, 2020	
SW Area Excavation. Impacted soil was removed from the vegetated area south of the well pad. The soil stockpile on the right side of the photograph prevented further removal of impacted soil on the north sidewall of the excavation. View looking southwest.		

Photo No.	Date	
6	August 28, 2020	
Chloride crusting and wet soils remaining at the Site. View looking north on east side of secondary containment.		

## APPENDIX

# A NMOCD VARIANCE REQUEST APPROVAL

**From:** [Smith, Cory, EMNRD](#)  
**To:** [Ernie Johnson](#)  
**Cc:** [Stuart Hyde](#); [Brooke Herb](#); [Adeloye, Abiodun A](#)  
**Subject:** RE: Sampling Variance Request - Chaco 2308 3L 405H  
**Date:** Monday, August 31, 2020 7:29:14 AM  
**Attachments:** [image002.png](#)  
[image003.png](#)  
[image004.png](#)

---

Ernie,

OCD approves the 400sqft sampling in the wash area south of the pad. Upon completion of the excavation in the other areas when further details are available OCD will make a determination on those areas.

Please include this approval in your Final C-141.

OCD approval of alternative sampling size does not relieve Whiptail of any other requirements imposed by other regulatory agencies.

Cory Smith  
Environmental Specialist  
Oil Conservation Division  
Energy, Minerals, & Natural Resources  
1000 Rio Brazos, Aztec, NM 87410  
(505)334-6178 ext 115  
[cory.smith@state.nm.us](mailto:cory.smith@state.nm.us)

---

**From:** Brooke Herb <bherb@ltenv.com>  
**Sent:** Friday, August 28, 2020 3:55 PM  
**To:** Smith, Cory, EMNRD <Cory.Smith@state.nm.us>  
**Cc:** Ernie Johnson <ernie.johnson@whiptailmidstream.com>; Stuart Hyde <shyde@ltenv.com>  
**Subject:** [EXT] Sampling Variance Request - Chaco 2308 3L 405H

Cory,

LT Environmental, Inc. (LTE), on behalf of Whiptail Midstream (Whiptail), presents the following Sampling Variance Request sent via e-mail to propose alternative closure sampling to confirm the remediation of impacted soil at the Chaco 2308 3L 405H (Site) in the northwest quarter of the southwest quarter of Section 3, Township 23 North, Range 8 West, in San Juan County, New Mexico (Figure 1). The sampling described is designed to evaluate remediation progress and propose a variance to the New Mexico Oil Conservation Division (NMOCD) confirmation sampling requirements in 19.15.29.12.D(3) of the New Mexico Administrative Code (NMAC).

Whiptail has excavated approximately 875 cubic yards of impacted soil from a tributary to and within Kimbeto Wash. The excavation is approximately 800 feet long, and an average of 8 feet wide, and 4 feet deep. Whiptail is requesting a variance to the 200-square foot confirmation sampling



requirement for the area to be excavated, which would require an estimated 32 floor samples and 34 sidewall samples from the wash excavation. Due to the large size of the affected area, LTE proposes increasing the confirmation sampling size to a 400-square foot area and collecting a 5-point composite sample to represent each 400-square foot area. A 5-point composite sample would be collected approximately every 50 feet from the floor of the excavation (estimated 16 floor samples) and a 5-point composite sample would be collected approximately every 100 feet of the sidewalls (estimated 17 sidewall samples) to confirm remediation of any impacts within the release extent in the wash.

The total extent of the excavation in areas on the pad and to the southwest of the pad are unknown at this time; however, Whiptail requests additional samples be included in this variance and collected every 400-square feet to address the additional excavation areas. As of August 28, 2020, Whiptail has excavated approximately 1,050 cubic yards of soil from an area southwest of the pad. This excavation is not complete and will be extended vertically and horizontally. Based on field screening delineation, LTE estimates that at 200 ft<sup>2</sup> sampling grid we would have to sample approximately 50 floor samples and 20 sidewall samples.

Thank you,  
Brooke



Brooke Herb  
Project Geologist/ Four Corners Office Manager  
970.403.6824 *cell*  
970.385.1096 *direct*  
848 East Second Avenue Durango, CO 81301  
[www.ltenv.com](http://www.ltenv.com)



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## APPENDIX

# B WCRM ARCHAEOLOGICAL SURVEY

# WCRM

Western Cultural Resource Management, Inc.

November 5, 2020

Mr. Ernie Johnson  
Whiptail Midstream  
15 W. 6<sup>th</sup> Street, Suite 2901  
Tulsa, OK. 74119

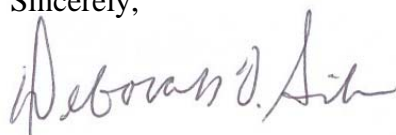
Dear Ernie:

As requested, the client copy of our report on the archaeological survey of the proposed *Archaeological Emergency Survey for the Cleanup of Whiptail Midstream Chaco 2308 3L 405H Oil Pipeline Release, San Juan County, New Mexico*, has been submitted electronically to you. During the survey, no cultural material was encountered.

WCRM recommends the project be allowed to proceed. The agency copies of the report have been submitted to the Bureau of Land Management, Farmington Field Office, who will review this report and make the final decision on archaeological approval for your project.

Please contact us if you have any questions concerning the report.

Sincerely,



Deborah V. Gibson  
Project Manager

enc.

cc: Eric Simpson, BLM  
Brooke Herb, LTE (electronic only)  
Tom Lennon, WCRM

## NMCRI INVESTIGATION ABSTRACT FORM (NIAF)

<b>1. NMCRI Activity No.:</b> 146560	<b>2a. Lead (Sponsoring) Agency:</b> Bureau of Land Management - Farmington Field Office	<b>2b. Other Permitting Agency(ies):</b>	<b>3. Lead Agency Report No.:</b>									
<b>4. Title of Report:</b> Archaeological Emergency Survey for the Cleanup of Whiptail Midstream Chaco 2308 3L 405H Oil Pipeline Release, San Juan County, New Mexico  <b>Authors:</b> Michael J. Proper and Deborah V. Gibson			<b>5. Type of Report</b> <input checked="" type="checkbox"/> <b>Negative</b> <input type="checkbox"/> <b>Positive</b>									
<b>6. Investigation Type</b>  <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"><input type="checkbox"/> Research Design</div> <div style="width: 50%;"><input checked="" type="checkbox"/> Survey/Inventory</div> <div style="width: 50%;"><input type="checkbox"/> Test Excavation</div> <div style="width: 50%;"><input type="checkbox"/> Excavation</div> <div style="width: 50%;"><input type="checkbox"/> Collections/Non-Field Study</div> <div style="width: 50%;"><input type="checkbox"/> Overview/Lit Review</div> <div style="width: 50%;"><input type="checkbox"/> Monitoring</div> <div style="width: 50%;"><input type="checkbox"/> Ethnographic study</div> <div style="width: 50%;"><input type="checkbox"/> Site specific visit</div> <div style="width: 50%;"><input type="checkbox"/> Other</div> </div>												
<b>7. Description of Undertaking (what does the project entail?):</b> Greg Riley of Whiptail Midstream, LLC (Whiptail) contacted personnel from Western Cultural Resource Management, Inc. (WCRM) to conduct an emergency survey of an oil spill that occurred on the Chaco 2308 3L 405H well pad. Bureau of Land Management - Farmington Field Office (BLM-FFO) verbal stipulations were to survey the affected area for cultural resources and monitor the initial cleanup activities if cultural resources were discovered (Erik Simpson, personal communication, August 18, 2020). The area directly affected was defined as the spill area. In addition to the spill area a cultural buffer was surveyed around the entire spill area (i.e., 7.09 acres). No cultural resources were located during the two surveys conducted on August 19 <sup>th</sup> and 28 <sup>th</sup> that inventoried the project area; therefore, the cleanup operations were not monitored.			<b>8. Dates of Investigation:</b> August 19, 2020  <b>9. Report Date:</b> November 4, 2020									
<b>10. Performing Agency/Consultant:</b> Western Cultural Resource Management, Inc. <b>Principal Investigator:</b> Deborah V. Gibson, Project Director <b>Field Supervisor:</b> Michael J. Proper <b>Field Personnel Names:</b> Michael J. Proper			<b>11. Performing Agency/Consultant Report No.:</b> WCRM(F)1576 <b>Project No.:</b> 20F025  <b>12. Applicable Cultural Resource Permit No(s):</b> 25-2920-18-SS									
<b>13. Client/Customer (project proponent):</b> Whiptail Midstream, LLC <b>Contact:</b> Ernie Johnson <b>Address:</b> 15 W. 6 <sup>th</sup> Street, Suite 2901, Tulsa, OK 74119 <b>Phone:</b> (918) 289-2147			<b>14. Client/Customer Project No.:</b>									
<b>15. Land Ownership Status (<u>Must</u> be indicated on project map):</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Land Owner</th> <th style="text-align: center;">Acres Surveyed*</th> <th style="text-align: center;">Acres in APE</th> </tr> </thead> <tbody> <tr> <td>BLM-FFO</td> <td style="text-align: center;">7.09</td> <td style="text-align: center;">1.74</td> </tr> <tr> <td style="text-align: right;"><b>TOTALS</b></td> <td style="text-align: center;"><b>7.09</b></td> <td style="text-align: center;"><b>1.74</b></td> </tr> </tbody> </table> <p>*as calculated in ArcGIS</p>				Land Owner	Acres Surveyed*	Acres in APE	BLM-FFO	7.09	1.74	<b>TOTALS</b>	<b>7.09</b>	<b>1.74</b>
Land Owner	Acres Surveyed*	Acres in APE										
BLM-FFO	7.09	1.74										
<b>TOTALS</b>	<b>7.09</b>	<b>1.74</b>										
<b>16. Records Search(es):</b> A literature review was conducted prior to the emergency cultural resource inventory, see table below. There are 22 previously recorded sites are located within 1.0 mi of the project area [see Appendix A (for agency use only)]. No sites within 1.0 mi of the project area are listed on the National Register of Historic Places (NRHP) or New Mexico State Register of Cultural Properties (SRCP). Nineteen previous surveys were conducted between 1980 and 2017 within 0.25 mi of the project area [see Appendix B (for agency use only)]. Two surveys intersect the current project NMCRI 130066 (performed by Cindy Bunker of WCRM) and NMCRI 124773 (performed by La Plata Archaeological Consultants) (Bunker 2014; Fuller 2012). The 2014 survey was performed by WCRM for the LOGOS Resources Proposed Heros 003H Well Pad which later became the Enduring Resources Chaco 2308 3L 405H well pad. The BLM-FFO designated Lybrook Fossil Area of Critical Environmental Concern (ACEC) is located 0.3 miles south of the project area. According to Van Valkenburgh (1974), no place sacred to the Navajo is located in the vicinity of the project area. Searches of the online BLM General Land Office (GLO) patent records and cadastral survey plat maps were conducted on August 30, 2020 by Michael Proper [see Appendix C (for agency use only)]. The GLO records were used to determine whether lands within the cleanup project area are associated with events that have made a significant contribution to the broad patterns of our history (NRHP Criterion <i>a</i> ) and/or were associated with the lives of significant persons in our past (NRHP Criterion <i>b</i> ). In addition, the GLO cadastral survey plat maps were examined for features that may be of historical significance; no military patents or historic features, including roads, were present within the project area on the 1882 maps (USDOI, BLM 1882) or the 1950 map (USDOI, BLM 1950).  Bunker, Cindy J. 2014 <i>A Cultural Resource Survey of LOGOS Resources Proposed Heros 003H Well Pad, Access Road, and Pipeline, San Juan County, New Mexico.</i> Report No. WCRM(F)1287. Western Cultural Resource Management Inc., Farmington, New Mexico. (NMCRI 130066)  Fuller, Steven 2012a <i>A Cultural Resources Survey of WPX Energy Production LLC's Lybrook 23-8-4 Number 102H Well Pad and Access Road, San Juan County, New Mexico.</i> Report No. LAC 2012-29f. La Plata Archaeological Consultants, Dolores, Colorado. (NMCRI No. 124773)												

**16. Records Search(es) (continued):**

United States Department of Interior, Bureau of Land Management (USDOI, BLM)

1882 Plat Map for Township 23 North, Range 8 West, New Mexico Meridian. Electronic document, General Land Office Online Records Automation Website, [www.glorerecords.blm.gov](http://www.glorerecords.blm.gov), accessed August 30, 2020.1950 Plat Map for Township 23 North, Range 8 West, New Mexico Meridian. Electronic document, General Land Office Online Records Automation Website, [www.glorerecords.blm.gov](http://www.glorerecords.blm.gov), accessed August 30, 2020.

Van Valkenburgh, Richard F.

1974 *Navajo Sacred Places and A Short History of the Navajo People*. Garland American Indian Ethnohistory Series, Navajo Indians, 3 Vols. Garland Publishing, Inc., New York and London.

<b>Date(s) of ARMS File Review:</b> 8/19/2020	<b>Name of Reviewer:</b> Bob Estes	
<b>Date(s) of NR/SR File Review:</b> 8/20/2020	<b>Name of Reviewer:</b> Michael J. Proper	
<b>Date(s) of Other Agency File Review:</b> 8/18/2008	<b>Name of Reviewer:</b> Deborah V. Gibson	<b>Agency:</b> Bureau of Land Management - Farmington Field Office

**17. Survey Data:****a. Source Graphics**☐ NAD 27 ☒ NAD 83☒ USGS 7.5' (1:24,000) topo map☐ Other topo map, Scale:☒ GPS Unit Accuracy ☐ <1.0m ☒ 1-10m ☐ 10-100m ☐ >100m**b. USGS 7.5' Topographic Map Name****USGS Quad Code**

Crow Mesa West, NM 1985 (provisional edition)	36107-C6

**c. County:** San Juan**d. Nearest City or Town:** Nageezi, New Mexico**e. Legal Description:**

Township (N/S)	Range (E/W)	Section	1/4	1/4	1/4
23N	8W	3*	W1/2, NW1/4, SW1/4.		
23N	8W	4*	SE1/4, NE1/4, SE1/4		

\* template anchored on SE corner and southern section line

Projected legal description? Yes [ ] , No [ X ] Unplatted [ ]

**f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):** N/A**18. Survey Field Methods:**Intensity: ☒ 100% coverage ☐ <100% coverageConfiguration: ☐ block survey units ☒ linear survey units (l x w): ☐ other survey units (specify):Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

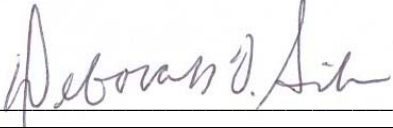
Survey Interval (m): 15 Crew Size: 2 Fieldwork Dates: August 19 and 28, 2020

Survey Person Hours: 17 Recording Person Hours: 0 Total Hours: 17

**Additional Narrative:** On August 18, 2020, WCRM was notified of an accident resulting in an oil spill at the Chaco 2308 3L 405H well pad. The spill was limited to a tributary drainage channel of Kimbeto Wash (Spill A and AA), the constructed well pad (Spill B), and a proposed temporary access road to be developed in order to access the spill (Spill A and AA) and remove the contaminated sediment. The newly proposed access road corridor measures approximately 400 by 50 ft, and is entirely within the drainage bottom; it begins where the drainage crosses the original well pad access road. Using the temporary access road, the spill could then be accessed by mechanical equipment and the contaminated sediment was removed.

The total area surveyed was 7.09 acres. An initial survey of 6.72 acres (Spill A, AA, B) was performed by WCRM archaeologist Michael J. Proper on August 19, 2020 under hazy skies (smoke is from fires in Colorado) with hot temperatures; parallel transects were walked 15 m (i.e., 50 ft) apart. A cultural buffer zone was surveyed 100 ft around the affected area except in areas where previous survey had been recently completed (see NMCRIS 130066). The survey covered the proposed temporary access road, the drainage channel, and the well pad. During quality control testing of the soils in and around the spill, it was determined that additional acreage need to be decontaminated. On August 28, 2020, Whiptail requested that WCRM return to the spill area to inspect an additional 0.37 acres to ensure that all contaminated locations had been surveyed before final cleanup procedures commenced; the survey was conducted that day by Deborah Gibson and Leta Yazzie. Survey was performed on a clear sky, with moderate temperatures. During both surveys, relevant points were recorded in the field using a handheld GPS unit accurate to 1 m.

**19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):** The project area is located in the badlands around Kimbeto Wash, north of Highway 550. Elevations range from 6860 to 6900 ft. Sediment is tan sandy loam and outcrops of clay, shale, and sandstone bedrock. Vegetation in the project area consists of a spare understory of sagebrush, grama grass, rabbitbrush, snakeweed, greasewood, Russian thistle, four-wing saltbush, and prickly pear cactus.

<b>20. a. Percent Ground Visibility:</b> 80-100 <b>b. Condition of Survey Area (grazed, bladed, undisturbed, etc.):</b> Energy development, livestock grazing, and recreation are activities currently taking place in the project area.	
<b>21. CULTURAL RESOURCE FINDINGS</b> <input type="checkbox"/> Yes, See Page 3 <input checked="" type="checkbox"/> No, Discuss Why: No cultural resources were located.	
<b>22. Required Attachments (check all appropriate boxes):</b> <input checked="" type="checkbox"/> USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn <input checked="" type="checkbox"/> Copy of NMCRIS Mapserver Map Check <input type="checkbox"/> LA Site Forms - new sites ( <u>with sketch map &amp; topographic map</u> ) <input type="checkbox"/> LA Site Forms (update) - previously recorded & un-relocated sites ( <u>first 2 pages minimum</u> ) <input type="checkbox"/> Historic Cultural Property Inventory Forms <input type="checkbox"/> List and Description of isolates, if applicable (see p. 3) <input type="checkbox"/> List and Description of Collections, if applicable	<b>23. Other Attachments:</b> <input type="checkbox"/> Photographs and Log <input type="checkbox"/> Other Attachments (Describe):
<b>24. I certify the information provided above is correct and accurate and meets all applicable agency standards.</b>  <b>Principal Investigator/Responsible Archaeologist:</b> Deborah V. Gibson  <div style="display: flex; justify-content: space-between;"> <div> <b>Signature</b>  </div> <div> <b>Date</b> <u>11/5/2020</u> </div> <div> <b>Title (if not PI):</b> Project Director         </div> </div>	
<b>25. Reviewing Agency:</b> <b>Reviewer's Name/Date</b>  Accepted (    )      Rejected (    )  Tribal Consultation (if applicable): <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>26. SHPO</b> <b>Reviewer's Name/Date:</b>  HPD Log #: SHPO File Location: Date sent to ARMS:

**CULTURAL RESOURCE FINDINGS***[fill in appropriate section(s)]*

<b>1. NMCRIS Activity No.:</b> 146560	<b>2. Lead (Sponsoring) Agency:</b> Bureau of Land Management, Farmington Field Office	<b>3. Lead Agency Report No.:</b>
---------------------------------------	---	-----------------------------------

**SURVEY RESULTS:** No cultural resources were located during survey.

**Sites discovered and registered:** 0  
**Sites discovered and NOT registered:** 0  
**Previously recorded sites revisited** (*site update form required*): 0  
**Previously recorded sites not relocated** (*site update form required*): 0  
**TOTAL SITES VISITED:** 0  
**Total isolates recorded:** 0      **Non-selective isolate recording?** ☐  
**Total structures recorded** (*new and previously recorded, including acequias*): 0

**MANAGEMENT SUMMARY:** Since no historic properties were present within the spill project area, no further work is recommended and the undertaking should be allowed to proceed.

**IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.**

**SURVEY LA NUMBER LOG**

**Sites Discovered:**

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

**Previously recorded revisited sites:**

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

**MONITORING LA NUMBER LOG** (*site form required*)

**Sites Discovered** (*site form required*) :      **Previously recorded sites** (*Site update form required*):

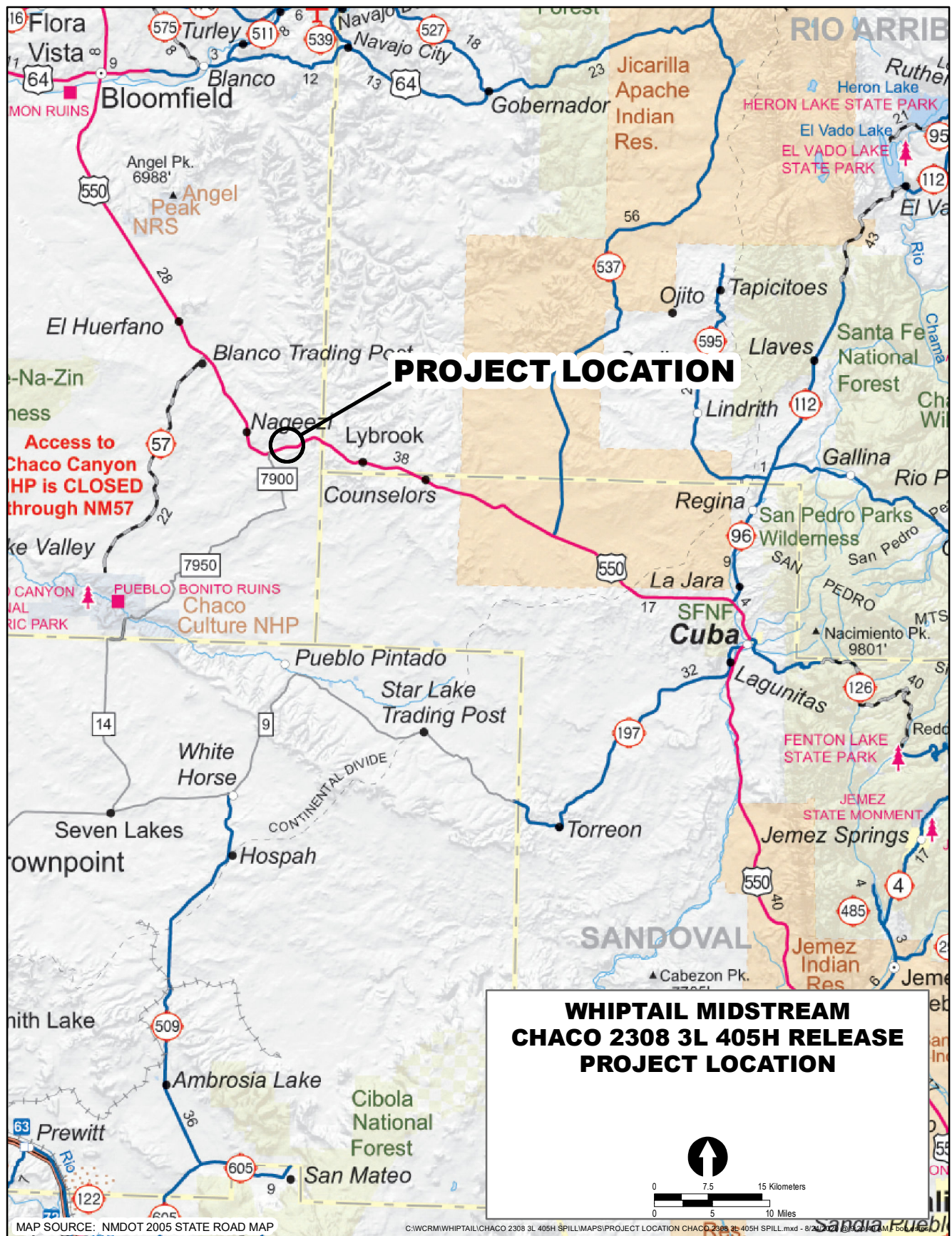
LA No.	Field/Agency No.	LA No.	Field/Agency No.

**Areas outside known nearby site boundaries monitored?** Yes ☐, No ☐ If no explain why:

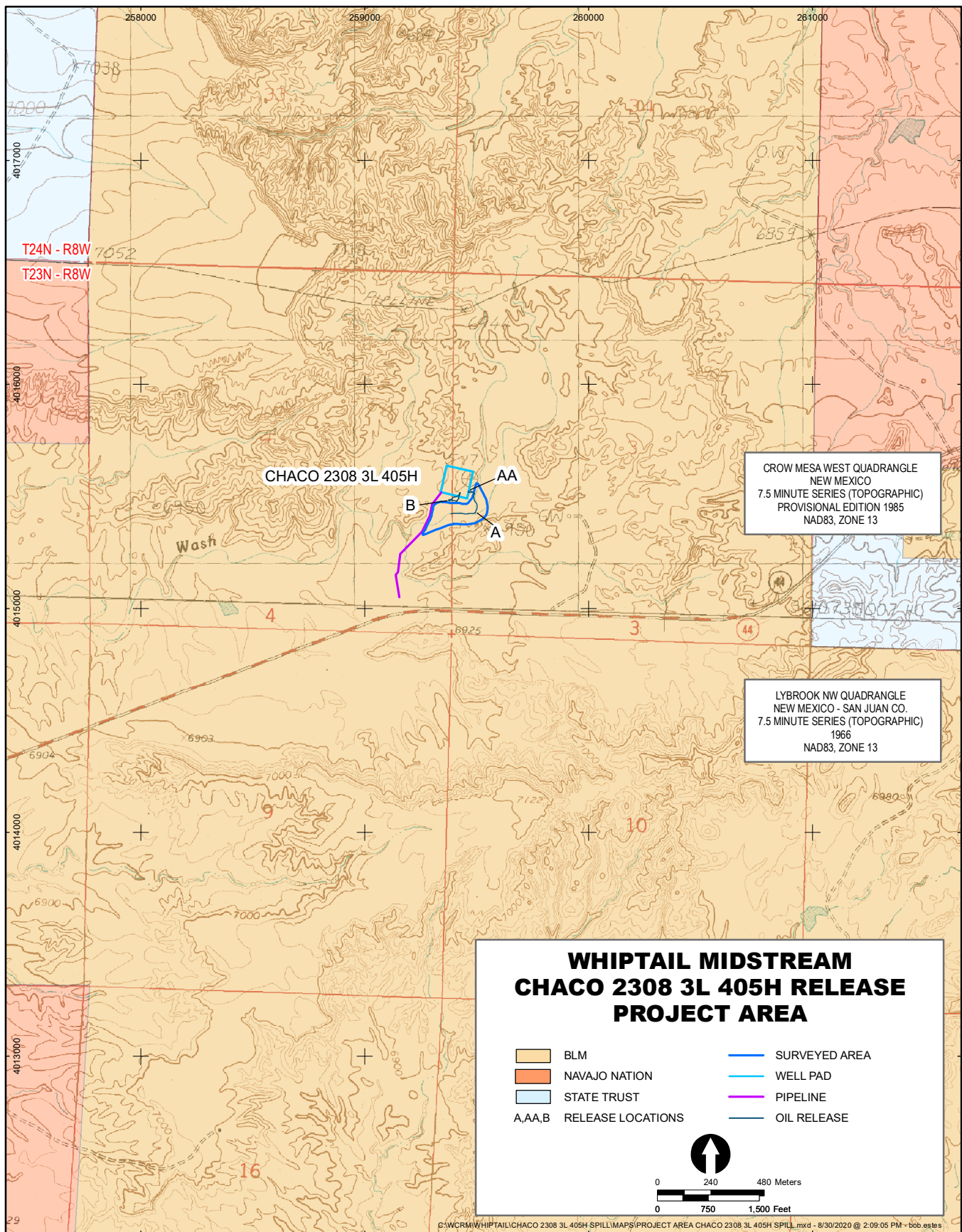
**TESTING & EXCAVATION LA NUMBER LOG** (*site form required*)

Tested LA number(s)	Excavated LA number(s)









## **Appendix A**

Previously Recorded Sites within 1.0 Mile of the Spill Project Area and Cultural Buffer Zone  
(for agency use only)

## **Appendix B**

Previous Surveys conducted within 0.25 Mile of the Spill Project Area and Cultural Buffer Zone  
(for agency use only)

## **Appendix C**

Historic GLO maps of the Spill Project Area and Cultural Buffer Zone  
(for agency use only)



## APPENDIX

# C ANALYTICAL LABORATORY REPORTS



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

September 09, 2020

Stuart Hyde

LTE

848 East 2nd Avenue

Durango, CO 81301

TEL: (970) 946-1093

FAX:

RE: Chaco 2308 03L 405H

OrderNo.: 2009004

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 36 sample(s) on 9/1/2020 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](http://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 #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS01

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:00:00 AM

Lab ID: 2009004-001

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	9/1/2020 4:58:56 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/1/2020 4:58:56 PM
Surr: DNOP	89.7	30.4-154		%Rec	1	9/1/2020 4:58:56 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	9/1/2020 10:49:17 AM
Surr: BFB	96.6	75.3-105		%Rec	1	9/1/2020 10:49:17 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.022		mg/Kg	1	9/1/2020 10:49:17 AM
Toluene	ND	0.045		mg/Kg	1	9/1/2020 10:49:17 AM
Ethylbenzene	ND	0.045		mg/Kg	1	9/1/2020 10:49:17 AM
Xylenes, Total	ND	0.090		mg/Kg	1	9/1/2020 10:49:17 AM
Surr: 4-Bromofluorobenzene	99.3	80-120		%Rec	1	9/1/2020 10:49:17 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 6:53:10 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS02

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:05:00 AM

Lab ID: 2009004-002

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/1/2020 6:11:44 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/1/2020 6:11:44 PM
Surr: DNOP	100	30.4-154		%Rec	1	9/1/2020 6:11:44 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/1/2020 11:59:49 AM
Surr: BFB	98.0	75.3-105		%Rec	1	9/1/2020 11:59:49 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	9/1/2020 11:59:49 AM
Toluene	ND	0.042		mg/Kg	1	9/1/2020 11:59:49 AM
Ethylbenzene	ND	0.042		mg/Kg	1	9/1/2020 11:59:49 AM
Xylenes, Total	ND	0.084		mg/Kg	1	9/1/2020 11:59:49 AM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/1/2020 11:59:49 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	59		mg/Kg	20	9/1/2020 7:55:13 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS03

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:08:00 AM

Lab ID: 2009004-003

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/1/2020 6:36:17 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/1/2020 6:36:17 PM
Surr: DNOP	93.4	30.4-154		%Rec	1	9/1/2020 6:36:17 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	9/1/2020 12:23:28 PM
Surr: BFB	98.9	75.3-105		%Rec	1	9/1/2020 12:23:28 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	9/1/2020 12:23:28 PM
Toluene	ND	0.051		mg/Kg	1	9/1/2020 12:23:28 PM
Ethylbenzene	ND	0.051		mg/Kg	1	9/1/2020 12:23:28 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/1/2020 12:23:28 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/1/2020 12:23:28 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	59		mg/Kg	20	9/1/2020 8:07:37 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS04

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:10:00 AM

Lab ID: 2009004-004

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/1/2020 7:00:39 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/1/2020 7:00:39 PM
Surr: DNOP	94.7	30.4-154		%Rec	1	9/1/2020 7:00:39 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	9/1/2020 12:47:02 PM
Surr: BFB	97.9	75.3-105		%Rec	1	9/1/2020 12:47:02 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.026		mg/Kg	1	9/1/2020 12:47:02 PM
Toluene	ND	0.051		mg/Kg	1	9/1/2020 12:47:02 PM
Ethylbenzene	ND	0.051		mg/Kg	1	9/1/2020 12:47:02 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/1/2020 12:47:02 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/1/2020 12:47:02 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 8:20:02 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS05

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:15:00 AM

Lab ID: 2009004-005

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/1/2020 7:25:08 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/1/2020 7:25:08 PM
Surr: DNOP	96.1	30.4-154		%Rec	1	9/1/2020 7:25:08 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	9/1/2020 1:10:36 PM
Surr: BFB	96.5	75.3-105		%Rec	1	9/1/2020 1:10:36 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.027		mg/Kg	1	9/1/2020 1:10:36 PM
Toluene	ND	0.054		mg/Kg	1	9/1/2020 1:10:36 PM
Ethylbenzene	ND	0.054		mg/Kg	1	9/1/2020 1:10:36 PM
Xylenes, Total	ND	0.11		mg/Kg	1	9/1/2020 1:10:36 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/1/2020 1:10:36 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	59		mg/Kg	20	9/1/2020 8:32:27 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS06

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:19:00 AM

Lab ID: 2009004-006

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	9/1/2020 7:49:26 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/1/2020 7:49:26 PM
Surr: DNOP	90.9	30.4-154		%Rec	1	9/1/2020 7:49:26 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	9/1/2020 1:34:07 PM
Surr: BFB	94.8	75.3-105		%Rec	1	9/1/2020 1:34:07 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	9/1/2020 1:34:07 PM
Toluene	ND	0.037		mg/Kg	1	9/1/2020 1:34:07 PM
Ethylbenzene	ND	0.037		mg/Kg	1	9/1/2020 1:34:07 PM
Xylenes, Total	ND	0.074		mg/Kg	1	9/1/2020 1:34:07 PM
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	9/1/2020 1:34:07 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 8:44:51 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS07

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:21:00 AM

Lab ID: 2009004-007

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/1/2020 8:13:53 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/1/2020 8:13:53 PM
Surr: DNOP	90.0	30.4-154		%Rec	1	9/1/2020 8:13:53 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/1/2020 1:57:37 PM
Surr: BFB	97.9	75.3-105		%Rec	1	9/1/2020 1:57:37 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	9/1/2020 1:57:37 PM
Toluene	ND	0.042		mg/Kg	1	9/1/2020 1:57:37 PM
Ethylbenzene	ND	0.042		mg/Kg	1	9/1/2020 1:57:37 PM
Xylenes, Total	ND	0.085		mg/Kg	1	9/1/2020 1:57:37 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/1/2020 1:57:37 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 8:57:16 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS08

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:25:00 AM

Lab ID: 2009004-008

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/1/2020 8:38:16 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/1/2020 8:38:16 PM
Surr: DNOP	89.3	30.4-154		%Rec	1	9/1/2020 8:38:16 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	9/1/2020 2:21:18 PM
Surr: BFB	98.0	75.3-105		%Rec	1	9/1/2020 2:21:18 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.022		mg/Kg	1	9/1/2020 2:21:18 PM
Toluene	ND	0.044		mg/Kg	1	9/1/2020 2:21:18 PM
Ethylbenzene	ND	0.044		mg/Kg	1	9/1/2020 2:21:18 PM
Xylenes, Total	ND	0.089		mg/Kg	1	9/1/2020 2:21:18 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/1/2020 2:21:18 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 9:09:40 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS09

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:30:00 AM

Lab ID: 2009004-009

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/1/2020 9:02:39 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/1/2020 9:02:39 PM
Surr: DNOP	91.5	30.4-154		%Rec	1	9/1/2020 9:02:39 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/1/2020 2:44:52 PM
Surr: BFB	93.5	75.3-105		%Rec	1	9/1/2020 2:44:52 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	9/1/2020 2:44:52 PM
Toluene	ND	0.040		mg/Kg	1	9/1/2020 2:44:52 PM
Ethylbenzene	ND	0.040		mg/Kg	1	9/1/2020 2:44:52 PM
Xylenes, Total	ND	0.081		mg/Kg	1	9/1/2020 2:44:52 PM
Surr: 4-Bromofluorobenzene	96.7	80-120		%Rec	1	9/1/2020 2:44:52 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 9:22:04 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS10

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:38:00 AM

Lab ID: 2009004-010

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/1/2020 9:27:14 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/1/2020 9:27:14 PM
Surr: DNOP	89.9	30.4-154		%Rec	1	9/1/2020 9:27:14 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/1/2020 3:55:22 PM
Surr: BFB	97.3	75.3-105		%Rec	1	9/1/2020 3:55:22 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	9/1/2020 3:55:22 PM
Toluene	ND	0.049		mg/Kg	1	9/1/2020 3:55:22 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/1/2020 3:55:22 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/1/2020 3:55:22 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/1/2020 3:55:22 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 9:59:17 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS11

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:42:00 AM

Lab ID: 2009004-011

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/1/2020 9:51:38 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/1/2020 9:51:38 PM
Surr: DNOP	91.4	30.4-154		%Rec	1	9/1/2020 9:51:38 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/1/2020 4:18:52 PM
Surr: BFB	95.9	75.3-105		%Rec	1	9/1/2020 4:18:52 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	9/1/2020 4:18:52 PM
Toluene	ND	0.046		mg/Kg	1	9/1/2020 4:18:52 PM
Ethylbenzene	ND	0.046		mg/Kg	1	9/1/2020 4:18:52 PM
Xylenes, Total	ND	0.093		mg/Kg	1	9/1/2020 4:18:52 PM
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	9/1/2020 4:18:52 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	59		mg/Kg	20	9/1/2020 10:11:41 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS12

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:46:00 AM

Lab ID: 2009004-012

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/1/2020 10:16:02 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/1/2020 10:16:02 PM
Surr: DNOP	93.6	30.4-154		%Rec	1	9/1/2020 10:16:02 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/1/2020 4:42:21 PM
Surr: BFB	99.0	75.3-105		%Rec	1	9/1/2020 4:42:21 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	9/1/2020 4:42:21 PM
Toluene	ND	0.042		mg/Kg	1	9/1/2020 4:42:21 PM
Ethylbenzene	ND	0.042		mg/Kg	1	9/1/2020 4:42:21 PM
Xylenes, Total	ND	0.084		mg/Kg	1	9/1/2020 4:42:21 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/1/2020 4:42:21 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	61		mg/Kg	20	9/1/2020 10:24:06 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS13

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:50:00 AM

Lab ID: 2009004-013

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/1/2020 10:40:27 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/1/2020 10:40:27 PM
Surr: DNOP	90.4	30.4-154		%Rec	1	9/1/2020 10:40:27 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/1/2020 5:05:51 PM
Surr: BFB	98.6	75.3-105		%Rec	1	9/1/2020 5:05:51 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	9/1/2020 5:05:51 PM
Toluene	ND	0.035		mg/Kg	1	9/1/2020 5:05:51 PM
Ethylbenzene	ND	0.035		mg/Kg	1	9/1/2020 5:05:51 PM
Xylenes, Total	ND	0.071		mg/Kg	1	9/1/2020 5:05:51 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/1/2020 5:05:51 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 10:36:30 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS14

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:55:00 AM

Lab ID: 2009004-014

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/1/2020 11:04:47 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/1/2020 11:04:47 PM
Surr: DNOP	91.6	30.4-154		%Rec	1	9/1/2020 11:04:47 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/1/2020 5:29:23 PM
Surr: BFB	96.8	75.3-105		%Rec	1	9/1/2020 5:29:23 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	9/1/2020 5:29:23 PM
Toluene	ND	0.038		mg/Kg	1	9/1/2020 5:29:23 PM
Ethylbenzene	ND	0.038		mg/Kg	1	9/1/2020 5:29:23 PM
Xylenes, Total	ND	0.075		mg/Kg	1	9/1/2020 5:29:23 PM
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	9/1/2020 5:29:23 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 10:48:54 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS15

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 10:57:00 AM

Lab ID: 2009004-015

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	24	9.5		mg/Kg	1	9/1/2020 11:29:09 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/1/2020 11:29:09 PM
Surr: DNOP	76.2	30.4-154		%Rec	1	9/1/2020 11:29:09 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.6		mg/Kg	1	9/1/2020 5:52:51 PM
Surr: BFB	95.4	75.3-105		%Rec	1	9/1/2020 5:52:51 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.028		mg/Kg	1	9/1/2020 5:52:51 PM
Toluene	ND	0.056		mg/Kg	1	9/1/2020 5:52:51 PM
Ethylbenzene	ND	0.056		mg/Kg	1	9/1/2020 5:52:51 PM
Xylenes, Total	ND	0.11		mg/Kg	1	9/1/2020 5:52:51 PM
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	9/1/2020 5:52:51 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	250	60		mg/Kg	20	9/1/2020 11:01:19 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS16

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:00:00 AM

Lab ID: 2009004-016

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/1/2020 11:53:21 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/1/2020 11:53:21 PM
Surr: DNOP	75.9	30.4-154		%Rec	1	9/1/2020 11:53:21 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/1/2020 6:16:17 PM
Surr: BFB	97.4	75.3-105		%Rec	1	9/1/2020 6:16:17 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	9/1/2020 6:16:17 PM
Toluene	ND	0.038		mg/Kg	1	9/1/2020 6:16:17 PM
Ethylbenzene	ND	0.038		mg/Kg	1	9/1/2020 6:16:17 PM
Xylenes, Total	ND	0.075		mg/Kg	1	9/1/2020 6:16:17 PM
Surr: 4-Bromofluorobenzene	97.1	80-120		%Rec	1	9/1/2020 6:16:17 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 11:13:44 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash FS17

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:05:00 AM

Lab ID: 2009004-017

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	48	9.6		mg/Kg	1	9/2/2020 12:17:47 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/2/2020 12:17:47 AM
Surr: DNOP	87.8	30.4-154		%Rec	1	9/2/2020 12:17:47 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/1/2020 6:39:44 PM
Surr: BFB	96.9	75.3-105		%Rec	1	9/1/2020 6:39:44 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	9/1/2020 6:39:44 PM
Toluene	ND	0.036		mg/Kg	1	9/1/2020 6:39:44 PM
Ethylbenzene	ND	0.036		mg/Kg	1	9/1/2020 6:39:44 PM
Xylenes, Total	ND	0.072		mg/Kg	1	9/1/2020 6:39:44 PM
Surr: 4-Bromofluorobenzene	99.9	80-120		%Rec	1	9/1/2020 6:39:44 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	150	60		mg/Kg	20	9/1/2020 11:26:09 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW01

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:20:00 AM

Lab ID: 2009004-018

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/2/2020 1:06:23 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/2/2020 1:06:23 AM
Surr: DNOP	70.3	30.4-154		%Rec	1	9/2/2020 1:06:23 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg	1	9/1/2020 7:03:08 PM
Surr: BFB	97.5	75.3-105		%Rec	1	9/1/2020 7:03:08 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.026		mg/Kg	1	9/1/2020 7:03:08 PM
Toluene	ND	0.052		mg/Kg	1	9/1/2020 7:03:08 PM
Ethylbenzene	ND	0.052		mg/Kg	1	9/1/2020 7:03:08 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/1/2020 7:03:08 PM
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	9/1/2020 7:03:08 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 11:38:34 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW02

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:24:00 AM

Lab ID: 2009004-019

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/2/2020 1:30:34 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/2/2020 1:30:34 AM
Surr: DNOP	79.0	30.4-154		%Rec	1	9/2/2020 1:30:34 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/1/2020 7:26:29 PM
Surr: BFB	94.9	75.3-105		%Rec	1	9/1/2020 7:26:29 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	9/1/2020 7:26:29 PM
Toluene	ND	0.041		mg/Kg	1	9/1/2020 7:26:29 PM
Ethylbenzene	ND	0.041		mg/Kg	1	9/1/2020 7:26:29 PM
Xylenes, Total	ND	0.081		mg/Kg	1	9/1/2020 7:26:29 PM
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	9/1/2020 7:26:29 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/1/2020 11:50:58 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW03

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:29:00 AM

Lab ID: 2009004-020

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/2/2020 1:55:09 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/2/2020 1:55:09 AM
Surr: DNOP	68.9	30.4-154		%Rec	1	9/2/2020 1:55:09 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	59		mg/Kg	20	9/2/2020 12:28:12 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	9/1/2020 4:09:03 PM
Toluene	ND	0.047		mg/Kg	1	9/1/2020 4:09:03 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/1/2020 4:09:03 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/1/2020 4:09:03 PM
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	1	9/1/2020 4:09:03 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	9/1/2020 4:09:03 PM
Surr: Dibromofluoromethane	94.9	70-130		%Rec	1	9/1/2020 4:09:03 PM
Surr: Toluene-d8	102	70-130		%Rec	1	9/1/2020 4:09:03 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/1/2020 4:09:03 PM
Surr: BFB	93.7	70-130		%Rec	1	9/1/2020 4:09:03 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW04

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:32:00 AM

Lab ID: 2009004-021

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	33	9.6		mg/Kg	1	9/2/2020 3:07:50 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/2/2020 3:07:50 AM
Surr: DNOP	50.8	30.4-154		%Rec	1	9/2/2020 3:07:50 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 1:30:14 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.027		mg/Kg	1	9/1/2020 5:37:42 PM
Toluene	ND	0.054		mg/Kg	1	9/1/2020 5:37:42 PM
Ethylbenzene	ND	0.054		mg/Kg	1	9/1/2020 5:37:42 PM
Xylenes, Total	ND	0.11		mg/Kg	1	9/1/2020 5:37:42 PM
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%Rec	1	9/1/2020 5:37:42 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	9/1/2020 5:37:42 PM
Surr: Dibromofluoromethane	96.1	70-130		%Rec	1	9/1/2020 5:37:42 PM
Surr: Toluene-d8	103	70-130		%Rec	1	9/1/2020 5:37:42 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	9/1/2020 5:37:42 PM
Surr: BFB	96.5	70-130		%Rec	1	9/1/2020 5:37:42 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW05

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:35:00 AM

Lab ID: 2009004-022

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/2/2020 4:20:36 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/2/2020 4:20:36 AM
Surr: DNOP	58.4	30.4-154		%Rec	1	9/2/2020 4:20:36 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 2:07:28 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.028		mg/Kg	1	9/1/2020 7:06:05 PM
Toluene	ND	0.055		mg/Kg	1	9/1/2020 7:06:05 PM
Ethylbenzene	ND	0.055		mg/Kg	1	9/1/2020 7:06:05 PM
Xylenes, Total	ND	0.11		mg/Kg	1	9/1/2020 7:06:05 PM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%Rec	1	9/1/2020 7:06:05 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	9/1/2020 7:06:05 PM
Surr: Dibromofluoromethane	91.2	70-130		%Rec	1	9/1/2020 7:06:05 PM
Surr: Toluene-d8	102	70-130		%Rec	1	9/1/2020 7:06:05 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.5		mg/Kg	1	9/1/2020 7:06:05 PM
Surr: BFB	95.0	70-130		%Rec	1	9/1/2020 7:06:05 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW06

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:40:00 AM

Lab ID: 2009004-023

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/2/2020 4:44:46 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/2/2020 4:44:46 AM
Surr: DNOP	52.3	30.4-154		%Rec	1	9/2/2020 4:44:46 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 2:19:53 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.019		mg/Kg	1	9/1/2020 7:35:33 PM
Toluene	ND	0.037		mg/Kg	1	9/1/2020 7:35:33 PM
Ethylbenzene	ND	0.037		mg/Kg	1	9/1/2020 7:35:33 PM
Xylenes, Total	ND	0.075		mg/Kg	1	9/1/2020 7:35:33 PM
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%Rec	1	9/1/2020 7:35:33 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	9/1/2020 7:35:33 PM
Surr: Dibromofluoromethane	94.1	70-130		%Rec	1	9/1/2020 7:35:33 PM
Surr: Toluene-d8	104	70-130		%Rec	1	9/1/2020 7:35:33 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	9/1/2020 7:35:33 PM
Surr: BFB	97.8	70-130		%Rec	1	9/1/2020 7:35:33 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW07

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:45:00 AM

Lab ID: 2009004-024

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/2/2020 5:08:56 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/2/2020 5:08:56 AM
Surr: DNOP	64.6	30.4-154		%Rec	1	9/2/2020 5:08:56 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 2:57:07 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.019		mg/Kg	1	9/1/2020 8:05:09 PM
Toluene	ND	0.039		mg/Kg	1	9/1/2020 8:05:09 PM
Ethylbenzene	ND	0.039		mg/Kg	1	9/1/2020 8:05:09 PM
Xylenes, Total	ND	0.078		mg/Kg	1	9/1/2020 8:05:09 PM
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%Rec	1	9/1/2020 8:05:09 PM
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	9/1/2020 8:05:09 PM
Surr: Dibromofluoromethane	96.1	70-130		%Rec	1	9/1/2020 8:05:09 PM
Surr: Toluene-d8	104	70-130		%Rec	1	9/1/2020 8:05:09 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	9/1/2020 8:05:09 PM
Surr: BFB	97.3	70-130		%Rec	1	9/1/2020 8:05:09 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW08

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:50:00 AM

Lab ID: 2009004-025

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1200	90		mg/Kg	10	9/2/2020 5:33:02 AM
Motor Oil Range Organics (MRO)	910	450		mg/Kg	10	9/2/2020 5:33:02 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	9/2/2020 5:33:02 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	490	60		mg/Kg	20	9/2/2020 3:09:32 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.10	D	mg/Kg	5	9/1/2020 8:34:37 PM
Toluene	ND	0.21	D	mg/Kg	5	9/1/2020 8:34:37 PM
Ethylbenzene	ND	0.21	D	mg/Kg	5	9/1/2020 8:34:37 PM
Xylenes, Total	ND	0.41	D	mg/Kg	5	9/1/2020 8:34:37 PM
Surr: 1,2-Dichloroethane-d4	100	70-130	D	%Rec	5	9/1/2020 8:34:37 PM
Surr: 4-Bromofluorobenzene	99.7	70-130	D	%Rec	5	9/1/2020 8:34:37 PM
Surr: Dibromofluoromethane	95.2	70-130	D	%Rec	5	9/1/2020 8:34:37 PM
Surr: Toluene-d8	104	70-130	D	%Rec	5	9/1/2020 8:34:37 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	21	D	mg/Kg	5	9/1/2020 8:34:37 PM
Surr: BFB	97.6	70-130	D	%Rec	5	9/1/2020 8:34:37 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW09

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 11:54:00 AM

Lab ID: 2009004-026

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	17	9.1		mg/Kg	1	9/2/2020 5:57:09 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/2/2020 5:57:09 AM
Surr: DNOP	74.1	30.4-154		%Rec	1	9/2/2020 5:57:09 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 3:21:56 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.021		mg/Kg	1	9/1/2020 9:03:59 PM
Toluene	ND	0.043		mg/Kg	1	9/1/2020 9:03:59 PM
Ethylbenzene	ND	0.043		mg/Kg	1	9/1/2020 9:03:59 PM
Xylenes, Total	ND	0.085		mg/Kg	1	9/1/2020 9:03:59 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%Rec	1	9/1/2020 9:03:59 PM
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	1	9/1/2020 9:03:59 PM
Surr: Dibromofluoromethane	93.0	70-130		%Rec	1	9/1/2020 9:03:59 PM
Surr: Toluene-d8	102	70-130		%Rec	1	9/1/2020 9:03:59 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/1/2020 9:03:59 PM
Surr: BFB	96.4	70-130		%Rec	1	9/1/2020 9:03:59 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW10

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:00:00 PM

Lab ID: 2009004-027

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	100	9.4		mg/Kg	1	9/2/2020 6:21:15 AM
Motor Oil Range Organics (MRO)	160	47		mg/Kg	1	9/2/2020 6:21:15 AM
Surr: DNOP	91.5	30.4-154		%Rec	1	9/2/2020 6:21:15 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	180	59		mg/Kg	20	9/2/2020 3:34:20 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.019		mg/Kg	1	9/1/2020 9:33:31 PM
Toluene	ND	0.039		mg/Kg	1	9/1/2020 9:33:31 PM
Ethylbenzene	ND	0.039		mg/Kg	1	9/1/2020 9:33:31 PM
Xylenes, Total	ND	0.077		mg/Kg	1	9/1/2020 9:33:31 PM
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%Rec	1	9/1/2020 9:33:31 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	9/1/2020 9:33:31 PM
Surr: Dibromofluoromethane	95.4	70-130		%Rec	1	9/1/2020 9:33:31 PM
Surr: Toluene-d8	105	70-130		%Rec	1	9/1/2020 9:33:31 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	9/1/2020 9:33:31 PM
Surr: BFB	98.6	70-130		%Rec	1	9/1/2020 9:33:31 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW11

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:04:00 PM

Lab ID: 2009004-028

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/2/2020 6:45:39 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/2/2020 6:45:39 AM
Surr: DNOP	70.2	30.4-154		%Rec	1	9/2/2020 6:45:39 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	68	60		mg/Kg	20	9/2/2020 3:46:44 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.020		mg/Kg	1	9/1/2020 10:02:52 PM
Toluene	ND	0.039		mg/Kg	1	9/1/2020 10:02:52 PM
Ethylbenzene	ND	0.039		mg/Kg	1	9/1/2020 10:02:52 PM
Xylenes, Total	ND	0.079		mg/Kg	1	9/1/2020 10:02:52 PM
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%Rec	1	9/1/2020 10:02:52 PM
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	9/1/2020 10:02:52 PM
Surr: Dibromofluoromethane	94.6	70-130		%Rec	1	9/1/2020 10:02:52 PM
Surr: Toluene-d8	105	70-130		%Rec	1	9/1/2020 10:02:52 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	9/1/2020 10:02:52 PM
Surr: BFB	97.1	70-130		%Rec	1	9/1/2020 10:02:52 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW12

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:10:00 PM

Lab ID: 2009004-029

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	9/2/2020 7:09:44 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/2/2020 7:09:44 AM
Surr: DNOP	73.9	30.4-154		%Rec	1	9/2/2020 7:09:44 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 3:59:08 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.022		mg/Kg	1	9/1/2020 10:32:28 PM
Toluene	ND	0.045		mg/Kg	1	9/1/2020 10:32:28 PM
Ethylbenzene	ND	0.045		mg/Kg	1	9/1/2020 10:32:28 PM
Xylenes, Total	ND	0.089		mg/Kg	1	9/1/2020 10:32:28 PM
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%Rec	1	9/1/2020 10:32:28 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	9/1/2020 10:32:28 PM
Surr: Dibromofluoromethane	98.9	70-130		%Rec	1	9/1/2020 10:32:28 PM
Surr: Toluene-d8	103	70-130		%Rec	1	9/1/2020 10:32:28 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	9/1/2020 10:32:28 PM
Surr: BFB	95.7	70-130		%Rec	1	9/1/2020 10:32:28 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW13

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:15:00 PM

Lab ID: 2009004-030

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	9/2/2020 7:35:14 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/2/2020 7:35:14 AM
Surr: DNOP	70.4	30.4-154		%Rec	1	9/2/2020 7:35:14 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 4:11:32 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.021		mg/Kg	1	9/1/2020 11:01:53 PM
Toluene	ND	0.041		mg/Kg	1	9/1/2020 11:01:53 PM
Ethylbenzene	ND	0.041		mg/Kg	1	9/1/2020 11:01:53 PM
Xylenes, Total	ND	0.083		mg/Kg	1	9/1/2020 11:01:53 PM
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	9/1/2020 11:01:53 PM
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	9/1/2020 11:01:53 PM
Surr: Dibromofluoromethane	94.9	70-130		%Rec	1	9/1/2020 11:01:53 PM
Surr: Toluene-d8	104	70-130		%Rec	1	9/1/2020 11:01:53 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/1/2020 11:01:53 PM
Surr: BFB	96.8	70-130		%Rec	1	9/1/2020 11:01:53 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW14

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:20:00 PM

Lab ID: 2009004-031

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/2/2020 7:59:05 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/2/2020 7:59:05 AM
Surr: DNOP	78.6	30.4-154		%Rec	1	9/2/2020 7:59:05 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 4:23:57 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	9/1/2020 11:31:21 PM
Toluene	ND	0.046		mg/Kg	1	9/1/2020 11:31:21 PM
Ethylbenzene	ND	0.046		mg/Kg	1	9/1/2020 11:31:21 PM
Xylenes, Total	ND	0.093		mg/Kg	1	9/1/2020 11:31:21 PM
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	1	9/1/2020 11:31:21 PM
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	9/1/2020 11:31:21 PM
Surr: Dibromofluoromethane	94.6	70-130		%Rec	1	9/1/2020 11:31:21 PM
Surr: Toluene-d8	104	70-130		%Rec	1	9/1/2020 11:31:21 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/1/2020 11:31:21 PM
Surr: BFB	93.8	70-130		%Rec	1	9/1/2020 11:31:21 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW15

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:25:00 PM

Lab ID: 2009004-032

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/2/2020 8:23:10 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/2/2020 8:23:10 AM
Surr: DNOP	79.7	30.4-154		%Rec	1	9/2/2020 8:23:10 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	61		mg/Kg	20	9/2/2020 4:36:22 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.021		mg/Kg	1	9/2/2020 12:00:52 AM
Toluene	ND	0.041		mg/Kg	1	9/2/2020 12:00:52 AM
Ethylbenzene	ND	0.041		mg/Kg	1	9/2/2020 12:00:52 AM
Xylenes, Total	ND	0.082		mg/Kg	1	9/2/2020 12:00:52 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	9/2/2020 12:00:52 AM
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	9/2/2020 12:00:52 AM
Surr: Dibromofluoromethane	96.9	70-130		%Rec	1	9/2/2020 12:00:52 AM
Surr: Toluene-d8	104	70-130		%Rec	1	9/2/2020 12:00:52 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/2/2020 12:00:52 AM
Surr: BFB	96.9	70-130		%Rec	1	9/2/2020 12:00:52 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW16

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:30:00 PM

Lab ID: 2009004-033

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/2/2020 8:47:13 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/2/2020 8:47:13 AM
Surr: DNOP	77.4	30.4-154		%Rec	1	9/2/2020 8:47:13 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 4:48:46 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	9/2/2020 12:30:19 AM
Toluene	ND	0.046		mg/Kg	1	9/2/2020 12:30:19 AM
Ethylbenzene	ND	0.046		mg/Kg	1	9/2/2020 12:30:19 AM
Xylenes, Total	ND	0.093		mg/Kg	1	9/2/2020 12:30:19 AM
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%Rec	1	9/2/2020 12:30:19 AM
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	9/2/2020 12:30:19 AM
Surr: Dibromofluoromethane	96.1	70-130		%Rec	1	9/2/2020 12:30:19 AM
Surr: Toluene-d8	105	70-130		%Rec	1	9/2/2020 12:30:19 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/2/2020 12:30:19 AM
Surr: BFB	96.3	70-130		%Rec	1	9/2/2020 12:30:19 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW17

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 12:35:00 PM

Lab ID: 2009004-034

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	14	9.4		mg/Kg	1	9/2/2020 9:11:23 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/2/2020 9:11:23 AM
Surr: DNOP	77.8	30.4-154		%Rec	1	9/2/2020 9:11:23 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 5:25:59 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.020		mg/Kg	1	9/2/2020 12:59:50 AM
Toluene	ND	0.041		mg/Kg	1	9/2/2020 12:59:50 AM
Ethylbenzene	ND	0.041		mg/Kg	1	9/2/2020 12:59:50 AM
Xylenes, Total	ND	0.081		mg/Kg	1	9/2/2020 12:59:50 AM
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%Rec	1	9/2/2020 12:59:50 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/2/2020 12:59:50 AM
Surr: Dibromofluoromethane	97.0	70-130		%Rec	1	9/2/2020 12:59:50 AM
Surr: Toluene-d8	104	70-130		%Rec	1	9/2/2020 12:59:50 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/2/2020 12:59:50 AM
Surr: BFB	98.3	70-130		%Rec	1	9/2/2020 12:59:50 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SP01

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 4:00:00 PM

Lab ID: 2009004-035

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	12	9.6		mg/Kg	1	9/2/2020 9:35:29 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/2/2020 9:35:29 AM
Surr: DNOP	85.7	30.4-154		%Rec	1	9/2/2020 9:35:29 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 5:38:23 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.019		mg/Kg	1	9/2/2020 3:27:16 AM
Toluene	ND	0.038		mg/Kg	1	9/2/2020 3:27:16 AM
Ethylbenzene	ND	0.038		mg/Kg	1	9/2/2020 3:27:16 AM
Xylenes, Total	ND	0.077		mg/Kg	1	9/2/2020 3:27:16 AM
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	9/2/2020 3:27:16 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	9/2/2020 3:27:16 AM
Surr: Dibromofluoromethane	100	70-130		%Rec	1	9/2/2020 3:27:16 AM
Surr: Toluene-d8	104	70-130		%Rec	1	9/2/2020 3:27:16 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/2/2020 3:27:16 AM
Surr: BFB	94.3	70-130		%Rec	1	9/2/2020 3:27:16 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009004

Date Reported: 9/9/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SP02

Project: Chaco 2308 03L 405H

Collection Date: 8/31/2020 4:15:00 PM

Lab ID: 2009004-036

Matrix: MEOH (SOIL)

Received Date: 9/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	9.5	8.7		mg/Kg	1	9/2/2020 9:59:39 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/2/2020 9:59:39 AM
Surr: DNOP	87.0	30.4-154		%Rec	1	9/2/2020 9:59:39 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/2/2020 5:50:47 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.018		mg/Kg	1	9/2/2020 3:56:55 AM
Toluene	ND	0.036		mg/Kg	1	9/2/2020 3:56:55 AM
Ethylbenzene	ND	0.036		mg/Kg	1	9/2/2020 3:56:55 AM
Xylenes, Total	ND	0.072		mg/Kg	1	9/2/2020 3:56:55 AM
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%Rec	1	9/2/2020 3:56:55 AM
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	9/2/2020 3:56:55 AM
Surr: Dibromofluoromethane	94.8	70-130		%Rec	1	9/2/2020 3:56:55 AM
Surr: Toluene-d8	104	70-130		%Rec	1	9/2/2020 3:56:55 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/2/2020 3:56:55 AM
Surr: BFB	94.8	70-130		%Rec	1	9/2/2020 3:56:55 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009004

09-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 03L 405H

Sample ID: <b>MB-54869</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54869</b>	RunNo: <b>71522</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499684</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-54869</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54869</b>	RunNo: <b>71522</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499685</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	90	110			

Sample ID: <b>MB-54870</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54870</b>	RunNo: <b>71522</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/2/2020</b>	SeqNo: <b>2499716</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-54870</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54870</b>	RunNo: <b>71522</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/2/2020</b>	SeqNo: <b>2499717</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009004

09-Sep-20

**Client:** LTE**Project:** Chaco 2308 03L 405H

Sample ID: <b>2009004-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>Wash FS01</b>	Batch ID: <b>54854</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499210</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.1	45.70	0	98.3	47.4	136			
Surr: DNOP	3.9		4.570		86.3	30.4	154			

Sample ID: <b>2009004-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>Wash FS01</b>	Batch ID: <b>54854</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499211</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.8	48.92	0	99.0	47.4	136	7.51	43.4	
Surr: DNOP	4.3		4.892		86.9	30.4	154	0	0	

Sample ID: <b>2009004-021AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>Wash SW04</b>	Batch ID: <b>54857</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/2/2020</b>	SeqNo: <b>2499232</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	67	9.7	48.64	32.72	70.9	47.4	136			
Surr: DNOP	2.0		4.864		41.7	30.4	154			

Sample ID: <b>2009004-021AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>Wash SW04</b>	Batch ID: <b>54857</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/2/2020</b>	SeqNo: <b>2499233</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	9.5	47.30	32.72	208	47.4	136	64.6	43.4	RS
Surr: DNOP	2.6		4.730		55.4	30.4	154	0	0	

Sample ID: <b>LCS-54854</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54854</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499249</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.0	70	130			
Surr: DNOP	4.2		5.000		84.5	30.4	154			

Sample ID: <b>LCS-54857</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54857</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/2/2020</b>	SeqNo: <b>2499250</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009004

09-Sep-20

**Client:** LTE**Project:** Chaco 2308 03L 405H

Sample ID: <b>LCS-54857</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54857</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/2/2020</b>	SeqNo: <b>2499250</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.0	70	130			
Surr: DNOP	3.0		5.000		60.6	30.4	154			

Sample ID: <b>MB-54854</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54854</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499251</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		90.0	30.4	154			

Sample ID: <b>MB-54857</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54857</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/2/2020</b>	SeqNo: <b>2499252</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	6.8		10.00		68.3	30.4	154			

Sample ID: <b>LCS-54907</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54907</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/4/2020</b>	SeqNo: <b>2502752</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.9		5.000		119	30.4	154			

Sample ID: <b>MB-54907</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54907</b>	RunNo: <b>71526</b>								
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/4/2020</b>	SeqNo: <b>2502753</b> Units: <b>%Rec</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	13		10.00		126	30.4	154			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009004

09-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 03L 405H

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>G71524</b>		RunNo: <b>71524</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2498901</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.0	75.3	105			

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>G71524</b>		RunNo: <b>71524</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2498902</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	25.00	0	76.8	72.5	106			
Surr: BFB	1100		1000		105	75.3	105			S

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009004

09-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 03L 405H

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R71524</b>		RunNo: <b>71524</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2498939</b>		Units: <b>mg/Kg</b>					
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								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	80	120			

Sample ID: <b>100ng btex lcsb</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R71524</b>		RunNo: <b>71524</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2498940</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.3	80	120			
Toluene	0.94	0.050	1.000	0	94.4	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.7	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: <b>2009004-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>Wash FS01</b>	Batch ID: <b>R71524</b>		RunNo: <b>71524</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2498961</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.022	0.8985	0	96.8	76.3	120			
Toluene	0.87	0.045	0.8985	0	96.8	78.5	120			
Ethylbenzene	0.88	0.045	0.8985	0	97.5	78.1	124			
Xylenes, Total	2.6	0.090	2.695	0	97.7	79.3	125			
Surr: 4-Bromofluorobenzene	0.96		0.8985		106	80	120			

Sample ID: <b>2009004-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>Wash FS01</b>	Batch ID: <b>R71524</b>		RunNo: <b>71524</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2498962</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.022	0.8985	0	96.0	76.3	120	0.820	20	
Toluene	0.87	0.045	0.8985	0	96.6	78.5	120	0.217	20	
Ethylbenzene	0.88	0.045	0.8985	0	98.2	78.1	124	0.664	20	
Xylenes, Total	2.7	0.090	2.695	0	98.7	79.3	125	1.09	20	
Surr: 4-Bromofluorobenzene	0.98		0.8985		109	80	120	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009004

09-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 03L 405H

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2499776</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.7	70	130			
Toluene	1.1	0.050	1.000	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.8	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.4	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.4	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			

Sample ID: <b>2009004-020ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>Wash SW03</b>	Batch ID: <b>R71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/2/2020</b>		SeqNo: <b>2499779</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.023	0.9381	0	92.3	67.9	137			
Toluene	1.0	0.047	0.9381	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.4690		91.9	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4690		95.6	70	130			
Surr: Dibromofluoromethane	0.44		0.4690		94.3	70	130			
Surr: Toluene-d8	0.50		0.4690		106	70	130			

Sample ID: <b>2009004-020amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>Wash SW03</b>	Batch ID: <b>R71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/2/2020</b>		SeqNo: <b>2499781</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.023	0.9381	0	87.0	67.9	137	5.91	20	
Toluene	0.95	0.047	0.9381	0	102	70	130	6.92	20	
Surr: 1,2-Dichloroethane-d4	0.43		0.4690		91.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.45		0.4690		96.8	70	130	0	0	
Surr: Dibromofluoromethane	0.43		0.4690		92.5	70	130	0	0	
Surr: Toluene-d8	0.48		0.4690		102	70	130	0	0	

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2499798</b>		Units: <b>mg/Kg</b>					
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								
Xylenes, Total	ND	0.10								

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009004

09-Sep-20

Client: LTE  
Project: Chaco 2308 03L 405H

Sample ID: <b>mb1</b>		SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>						
Client ID: <b>PBS</b>		Batch ID: <b>R71559</b>		RunNo: <b>71559</b>						
Prep Date:		Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2499798</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.4	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009004

09-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 03L 405H

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>G71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2499999</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.5	70	130			
Surr: BFB	470		500.0		93.5	70	130			

Sample ID: <b>2009004-021ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>Wash SW04</b>	Batch ID: <b>G71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2500002</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.4	27.12	0	92.8	49.2	122			
Surr: BFB	530		542.3		97.8	70	130			

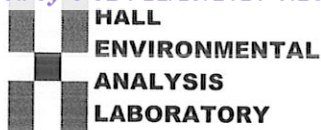
Sample ID: <b>2009004-021amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>Wash SW04</b>	Batch ID: <b>G71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2500003</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.4	27.12	0	89.2	49.2	122	4.00	20	
Surr: BFB	510		542.3		93.5	70	130	0	0	

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>G71559</b>		RunNo: <b>71559</b>							
Prep Date:	Analysis Date: <b>9/1/2020</b>		SeqNo: <b>2500019</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		99.1	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: **LTE**Work Order Number: **2009004**RcptNo: **1**Received By: **Cheyenne Cason** 9/1/2020 8:00:00 AMCompleted By: **Isaiah Ortiz** 9/1/2020 8:22:38 AMReviewed By: **SPA 9.1.20 / 9:45**

I-0X

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: JR 9/1/20

CME 9/1/20

### Special Handling (if applicable)

15. 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: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good	Yes			
2	3.2	Good	Yes			









Released to Imaging: 3/28/2022 10:39:26 AM

Turn-Around Time:	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush Next Day
Project Name:	Amco 2308 032 405H
Project #:	099520004
Project Manager:	S Hyde
Sampler:	S Hyde
On Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
# of Coolers:	2
Cooler Temp (including CF):	See Remarks (°C)

[illegible]

Remarks:	$4.2 + 0.1 = 4.3$ $3.1 + 0.1 = 3.2$
----------	--

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: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

September 11, 2020

Stuart Hyde

LTE

848 East 2nd Avenue

Durango, CO 81301

TEL: (970) 946-1093

FAX:

RE: Chaco 2308 3L 405H

OrderNo.: 2009304

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 25 sample(s) on 9/4/2020 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](http://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 #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW01

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:30:00 AM

Lab ID: 2009304-001

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/6/2020 6:28:58 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 6:28:58 AM
Surr: DNOP	69.3	30.4-154		%Rec	1	9/6/2020 6:28:58 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/5/2020 1:21:22 AM
Surr: BFB	93.9	75.3-105		%Rec	1	9/5/2020 1:21:22 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.020		mg/Kg	1	9/5/2020 1:21:22 AM
Toluene	ND	0.040		mg/Kg	1	9/5/2020 1:21:22 AM
Ethylbenzene	ND	0.040		mg/Kg	1	9/5/2020 1:21:22 AM
Xylenes, Total	ND	0.080		mg/Kg	1	9/5/2020 1:21:22 AM
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	9/5/2020 1:21:22 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	1000	60		mg/Kg	20	9/6/2020 4:00:29 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW02

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:33:00 AM

Lab ID: 2009304-002

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/6/2020 7:41:43 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 7:41:43 AM
Surr: DNOP	65.4	30.4-154		%Rec	1	9/6/2020 7:41:43 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	9/5/2020 1:44:44 AM
Surr: BFB	94.2	75.3-105		%Rec	1	9/5/2020 1:44:44 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>RAA</b>
Benzene	ND	0.019		mg/Kg	1	9/5/2020 1:44:44 AM
Toluene	ND	0.037		mg/Kg	1	9/5/2020 1:44:44 AM
Ethylbenzene	ND	0.037		mg/Kg	1	9/5/2020 1:44:44 AM
Xylenes, Total	ND	0.075		mg/Kg	1	9/5/2020 1:44:44 AM
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	9/5/2020 1:44:44 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	280	60		mg/Kg	20	9/6/2020 11:47:02 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW03

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:36:00 AM

Lab ID: 2009304-003

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/6/2020 8:30:18 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2020 8:30:18 AM
Surr: DNOP	78.1	30.4-154		%Rec	1	9/6/2020 8:30:18 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/5/2020 2:08:15 AM
Surr: BFB	93.7	75.3-105		%Rec	1	9/5/2020 2:08:15 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.020		mg/Kg	1	9/5/2020 2:08:15 AM
Toluene	ND	0.040		mg/Kg	1	9/5/2020 2:08:15 AM
Ethylbenzene	ND	0.040		mg/Kg	1	9/5/2020 2:08:15 AM
Xylenes, Total	ND	0.081		mg/Kg	1	9/5/2020 2:08:15 AM
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	9/5/2020 2:08:15 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	630	60		mg/Kg	20	9/6/2020 12:24:15 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW04

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:40:00 AM

Lab ID: 2009304-004

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: mb
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/6/2020 8:54:29 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 8:54:29 AM
Surr: DNOP	67.4	30.4-154		%Rec	1	9/6/2020 8:54:29 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/5/2020 2:31:51 AM
Surr: BFB	93.9	75.3-105		%Rec	1	9/5/2020 2:31:51 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	0.020		mg/Kg	1	9/5/2020 2:31:51 AM
Toluene	ND	0.040		mg/Kg	1	9/5/2020 2:31:51 AM
Ethylbenzene	ND	0.040		mg/Kg	1	9/5/2020 2:31:51 AM
Xylenes, Total	ND	0.081		mg/Kg	1	9/5/2020 2:31:51 AM
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	9/5/2020 2:31:51 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: CAS
Chloride	1000	60		mg/Kg	20	9/6/2020 1:01:27 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW05

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:43:00 AM

Lab ID: 2009304-005

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/6/2020 9:18:52 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/6/2020 9:18:52 AM
Surr: DNOP	59.9	30.4-154		%Rec	1	9/6/2020 9:18:52 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/6/2020 3:22:31 AM
Surr: BFB	93.0	75.3-105		%Rec	1	9/6/2020 3:22:31 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	9/6/2020 3:22:31 AM
Toluene	ND	0.040		mg/Kg	1	9/6/2020 3:22:31 AM
Ethylbenzene	ND	0.040		mg/Kg	1	9/6/2020 3:22:31 AM
Xylenes, Total	ND	0.080		mg/Kg	1	9/6/2020 3:22:31 AM
Surr: 4-Bromofluorobenzene	97.4	80-120		%Rec	1	9/6/2020 3:22:31 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 1:13:52 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW06

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:46:00 AM

Lab ID: 2009304-006

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/6/2020 9:43:07 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2020 9:43:07 AM
Surr: DNOP	68.1	30.4-154		%Rec	1	9/6/2020 9:43:07 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/6/2020 3:46:04 AM
Surr: BFB	95.2	75.3-105		%Rec	1	9/6/2020 3:46:04 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	9/6/2020 3:46:04 AM
Toluene	ND	0.036		mg/Kg	1	9/6/2020 3:46:04 AM
Ethylbenzene	ND	0.036		mg/Kg	1	9/6/2020 3:46:04 AM
Xylenes, Total	ND	0.071		mg/Kg	1	9/6/2020 3:46:04 AM
Surr: 4-Bromofluorobenzene	99.3	80-120		%Rec	1	9/6/2020 3:46:04 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 1:51:06 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW07

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:50:00 AM

Lab ID: 2009304-007

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/6/2020 10:07:32 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2020 10:07:32 AM
Surr: DNOP	63.9	30.4-154		%Rec	1	9/6/2020 10:07:32 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/6/2020 4:09:26 AM
Surr: BFB	92.0	75.3-105		%Rec	1	9/6/2020 4:09:26 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	9/6/2020 4:09:26 AM
Toluene	ND	0.038		mg/Kg	1	9/6/2020 4:09:26 AM
Ethylbenzene	ND	0.038		mg/Kg	1	9/6/2020 4:09:26 AM
Xylenes, Total	ND	0.077		mg/Kg	1	9/6/2020 4:09:26 AM
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	9/6/2020 4:09:26 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 2:03:30 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW08

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:53:00 AM

Lab ID: 2009304-008

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/6/2020 10:31:48 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 10:31:48 AM
Surr: DNOP	97.3	30.4-154		%Rec	1	9/6/2020 10:31:48 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/6/2020 4:32:50 AM
Surr: BFB	96.1	75.3-105		%Rec	1	9/6/2020 4:32:50 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	9/6/2020 4:32:50 AM
Toluene	ND	0.050		mg/Kg	1	9/6/2020 4:32:50 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/6/2020 4:32:50 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/6/2020 4:32:50 AM
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	9/6/2020 4:32:50 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 2:15:55 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area SW09

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 10:56:00 AM

Lab ID: 2009304-009

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2020 10:56:24 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2020 10:56:24 AM
Surr: DNOP	77.3	30.4-154		%Rec	1	9/6/2020 10:56:24 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/6/2020 4:56:12 AM
Surr: BFB	95.5	75.3-105		%Rec	1	9/6/2020 4:56:12 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	9/6/2020 4:56:12 AM
Toluene	ND	0.035		mg/Kg	1	9/6/2020 4:56:12 AM
Ethylbenzene	ND	0.035		mg/Kg	1	9/6/2020 4:56:12 AM
Xylenes, Total	ND	0.070		mg/Kg	1	9/6/2020 4:56:12 AM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/6/2020 4:56:12 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	270	60		mg/Kg	20	9/6/2020 2:28:19 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS01

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:20:00 AM

Lab ID: 2009304-010

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/6/2020 11:20:40 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/6/2020 11:20:40 AM
Surr: DNOP	73.8	30.4-154		%Rec	1	9/6/2020 11:20:40 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/6/2020 5:20:04 AM
Surr: BFB	98.7	75.3-105		%Rec	1	9/6/2020 5:20:04 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	9/6/2020 5:20:04 AM
Toluene	ND	0.043		mg/Kg	1	9/6/2020 5:20:04 AM
Ethylbenzene	ND	0.043		mg/Kg	1	9/6/2020 5:20:04 AM
Xylenes, Total	ND	0.085		mg/Kg	1	9/6/2020 5:20:04 AM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/6/2020 5:20:04 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	220	60		mg/Kg	20	9/6/2020 2:40:43 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS02

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:23:00 AM

Lab ID: 2009304-011

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/6/2020 11:45:05 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/6/2020 11:45:05 AM
Surr: DNOP	75.3	30.4-154		%Rec	1	9/6/2020 11:45:05 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	9/6/2020 5:44:05 AM
Surr: BFB	98.1	75.3-105		%Rec	1	9/6/2020 5:44:05 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	9/6/2020 5:44:05 AM
Toluene	ND	0.051		mg/Kg	1	9/6/2020 5:44:05 AM
Ethylbenzene	ND	0.051		mg/Kg	1	9/6/2020 5:44:05 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/6/2020 5:44:05 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/6/2020 5:44:05 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	540	60		mg/Kg	20	9/6/2020 2:53:08 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS03

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:26:00 AM

Lab ID: 2009304-012

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/6/2020 12:09:21 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/6/2020 12:09:21 PM
Surr: DNOP	74.1	30.4-154		%Rec	1	9/6/2020 12:09:21 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	460	60		mg/Kg	20	9/6/2020 3:05:32 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	9/5/2020 5:47:37 AM
Toluene	ND	0.046		mg/Kg	1	9/5/2020 5:47:37 AM
Ethylbenzene	ND	0.046		mg/Kg	1	9/5/2020 5:47:37 AM
Xylenes, Total	ND	0.093		mg/Kg	1	9/5/2020 5:47:37 AM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%Rec	1	9/5/2020 5:47:37 AM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	9/5/2020 5:47:37 AM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/5/2020 5:47:37 AM
Surr: Toluene-d8	95.9	70-130		%Rec	1	9/5/2020 5:47:37 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/5/2020 5:47:37 AM
Surr: BFB	103	70-130		%Rec	1	9/5/2020 5:47:37 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS04

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:29:00 AM

Lab ID: 2009304-013

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/6/2020 12:33:44 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/6/2020 12:33:44 PM
Surr: DNOP	71.6	30.4-154		%Rec	1	9/6/2020 12:33:44 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	230	60		mg/Kg	20	9/6/2020 3:17:57 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	9/5/2020 6:16:05 AM
Toluene	ND	0.050		mg/Kg	1	9/5/2020 6:16:05 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/5/2020 6:16:05 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/5/2020 6:16:05 AM
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%Rec	1	9/5/2020 6:16:05 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/5/2020 6:16:05 AM
Surr: Dibromofluoromethane	114	70-130		%Rec	1	9/5/2020 6:16:05 AM
Surr: Toluene-d8	97.2	70-130		%Rec	1	9/5/2020 6:16:05 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/5/2020 6:16:05 AM
Surr: BFB	107	70-130		%Rec	1	9/5/2020 6:16:05 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS05

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:32:00 AM

Lab ID: 2009304-014

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/6/2020 12:58:05 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/6/2020 12:58:05 PM
Surr: DNOP	53.6	30.4-154		%Rec	1	9/6/2020 12:58:05 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	490	60		mg/Kg	20	9/6/2020 3:30:21 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	9/5/2020 6:44:33 AM
Toluene	ND	0.050		mg/Kg	1	9/5/2020 6:44:33 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/5/2020 6:44:33 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/5/2020 6:44:33 AM
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%Rec	1	9/5/2020 6:44:33 AM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/5/2020 6:44:33 AM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/5/2020 6:44:33 AM
Surr: Toluene-d8	95.3	70-130		%Rec	1	9/5/2020 6:44:33 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/5/2020 6:44:33 AM
Surr: BFB	107	70-130		%Rec	1	9/5/2020 6:44:33 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS06

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:35:00 AM

Lab ID: 2009304-015

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/6/2020 1:22:33 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2020 1:22:33 PM
Surr: DNOP	65.7	30.4-154		%Rec	1	9/6/2020 1:22:33 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	59		mg/Kg	20	9/6/2020 3:42:46 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.026		mg/Kg	1	9/5/2020 7:13:13 AM
Toluene	ND	0.052		mg/Kg	1	9/5/2020 7:13:13 AM
Ethylbenzene	ND	0.052		mg/Kg	1	9/5/2020 7:13:13 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/5/2020 7:13:13 AM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%Rec	1	9/5/2020 7:13:13 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/5/2020 7:13:13 AM
Surr: Dibromofluoromethane	115	70-130		%Rec	1	9/5/2020 7:13:13 AM
Surr: Toluene-d8	96.4	70-130		%Rec	1	9/5/2020 7:13:13 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg	1	9/5/2020 7:13:13 AM
Surr: BFB	106	70-130		%Rec	1	9/5/2020 7:13:13 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS07

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:38:00 AM

Lab ID: 2009304-016

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/6/2020 1:46:59 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 1:46:59 PM
Surr: DNOP	85.9	30.4-154		%Rec	1	9/6/2020 1:46:59 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 4:20:00 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	9/5/2020 7:41:52 AM
Toluene	ND	0.045		mg/Kg	1	9/5/2020 7:41:52 AM
Ethylbenzene	ND	0.045		mg/Kg	1	9/5/2020 7:41:52 AM
Xylenes, Total	ND	0.090		mg/Kg	1	9/5/2020 7:41:52 AM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	1	9/5/2020 7:41:52 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	9/5/2020 7:41:52 AM
Surr: Dibromofluoromethane	112	70-130		%Rec	1	9/5/2020 7:41:52 AM
Surr: Toluene-d8	97.1	70-130		%Rec	1	9/5/2020 7:41:52 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	9/5/2020 7:41:52 AM
Surr: BFB	110	70-130		%Rec	1	9/5/2020 7:41:52 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS08

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:41:00 AM

Lab ID: 2009304-017

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/6/2020 2:11:28 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2020 2:11:28 PM
Surr: DNOP	60.6	30.4-154		%Rec	1	9/6/2020 2:11:28 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	61		mg/Kg	20	9/6/2020 4:32:24 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	9/5/2020 8:10:22 AM
Toluene	ND	0.046		mg/Kg	1	9/5/2020 8:10:22 AM
Ethylbenzene	ND	0.046		mg/Kg	1	9/5/2020 8:10:22 AM
Xylenes, Total	ND	0.093		mg/Kg	1	9/5/2020 8:10:22 AM
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	9/5/2020 8:10:22 AM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/5/2020 8:10:22 AM
Surr: Dibromofluoromethane	111	70-130		%Rec	1	9/5/2020 8:10:22 AM
Surr: Toluene-d8	94.5	70-130		%Rec	1	9/5/2020 8:10:22 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/5/2020 8:10:22 AM
Surr: BFB	105	70-130		%Rec	1	9/5/2020 8:10:22 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS09

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:44:00 AM

Lab ID: 2009304-018

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2020 2:35:48 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2020 2:35:48 PM
Surr: DNOP	68.2	30.4-154		%Rec	1	9/6/2020 2:35:48 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	61		mg/Kg	20	9/6/2020 4:44:48 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	9/5/2020 8:38:50 AM
Toluene	ND	0.037		mg/Kg	1	9/5/2020 8:38:50 AM
Ethylbenzene	ND	0.037		mg/Kg	1	9/5/2020 8:38:50 AM
Xylenes, Total	ND	0.074		mg/Kg	1	9/5/2020 8:38:50 AM
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%Rec	1	9/5/2020 8:38:50 AM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	9/5/2020 8:38:50 AM
Surr: Dibromofluoromethane	110	70-130		%Rec	1	9/5/2020 8:38:50 AM
Surr: Toluene-d8	96.1	70-130		%Rec	1	9/5/2020 8:38:50 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	9/5/2020 8:38:50 AM
Surr: BFB	112	70-130		%Rec	1	9/5/2020 8:38:50 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS10

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:47:00 AM

Lab ID: 2009304-019

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2020 3:00:22 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2020 3:00:22 PM
Surr: DNOP	78.5	30.4-154		%Rec	1	9/6/2020 3:00:22 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 4:57:13 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.021		mg/Kg	1	9/5/2020 9:07:20 AM
Toluene	ND	0.042		mg/Kg	1	9/5/2020 9:07:20 AM
Ethylbenzene	ND	0.042		mg/Kg	1	9/5/2020 9:07:20 AM
Xylenes, Total	ND	0.083		mg/Kg	1	9/5/2020 9:07:20 AM
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%Rec	1	9/5/2020 9:07:20 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/5/2020 9:07:20 AM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/5/2020 9:07:20 AM
Surr: Toluene-d8	94.4	70-130		%Rec	1	9/5/2020 9:07:20 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/5/2020 9:07:20 AM
Surr: BFB	107	70-130		%Rec	1	9/5/2020 9:07:20 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS11

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:50:00 AM

Lab ID: 2009304-020

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/6/2020 3:24:53 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2020 3:24:53 PM
Surr: DNOP	81.7	30.4-154		%Rec	1	9/6/2020 3:24:53 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 5:09:37 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.021		mg/Kg	1	9/5/2020 9:36:03 AM
Toluene	ND	0.041		mg/Kg	1	9/5/2020 9:36:03 AM
Ethylbenzene	ND	0.041		mg/Kg	1	9/5/2020 9:36:03 AM
Xylenes, Total	ND	0.082		mg/Kg	1	9/5/2020 9:36:03 AM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%Rec	1	9/5/2020 9:36:03 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/5/2020 9:36:03 AM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/5/2020 9:36:03 AM
Surr: Toluene-d8	95.3	70-130		%Rec	1	9/5/2020 9:36:03 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/5/2020 9:36:03 AM
Surr: BFB	106	70-130		%Rec	1	9/5/2020 9:36:03 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS12

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:53:00 AM

Lab ID: 2009304-021

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2020 5:02:28 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2020 5:02:28 PM
Surr: DNOP	82.0	30.4-154		%Rec	1	9/6/2020 5:02:28 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	9/6/2020 5:22:01 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.020		mg/Kg	1	9/5/2020 4:29:46 AM
Toluene	ND	0.039		mg/Kg	1	9/5/2020 4:29:46 AM
Ethylbenzene	ND	0.039		mg/Kg	1	9/5/2020 4:29:46 AM
Xylenes, Total	ND	0.078		mg/Kg	1	9/5/2020 4:29:46 AM
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	9/5/2020 4:29:46 AM
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	9/5/2020 4:29:46 AM
Surr: Dibromofluoromethane	101	70-130		%Rec	1	9/5/2020 4:29:46 AM
Surr: Toluene-d8	102	70-130		%Rec	1	9/5/2020 4:29:46 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	9/5/2020 4:29:46 AM
Surr: BFB	96.7	70-130		%Rec	1	9/5/2020 4:29:46 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS13

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:56:00 AM

Lab ID: 2009304-022

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/6/2020 6:15:59 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 6:15:59 PM
Surr: DNOP	65.2	30.4-154		%Rec	1	9/6/2020 6:15:59 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/8/2020 9:59:23 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	9/5/2020 5:59:03 AM
Toluene	ND	0.048		mg/Kg	1	9/5/2020 5:59:03 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/5/2020 5:59:03 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/5/2020 5:59:03 AM
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%Rec	1	9/5/2020 5:59:03 AM
Surr: 4-Bromofluorobenzene	95.5	70-130		%Rec	1	9/5/2020 5:59:03 AM
Surr: Dibromofluoromethane	94.4	70-130		%Rec	1	9/5/2020 5:59:03 AM
Surr: Toluene-d8	106	70-130		%Rec	1	9/5/2020 5:59:03 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/5/2020 5:59:03 AM
Surr: BFB	95.8	70-130		%Rec	1	9/5/2020 5:59:03 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: SW Area FS14

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 11:59:00 AM

Lab ID: 2009304-023

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/6/2020 6:40:26 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 6:40:26 PM
Surr: DNOP	76.4	30.4-154		%Rec	1	9/6/2020 6:40:26 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	150	60		mg/Kg	20	9/8/2020 10:36:27 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.026		mg/Kg	1	9/5/2020 7:27:30 AM
Toluene	ND	0.052		mg/Kg	1	9/5/2020 7:27:30 AM
Ethylbenzene	ND	0.052		mg/Kg	1	9/5/2020 7:27:30 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/5/2020 7:27:30 AM
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	9/5/2020 7:27:30 AM
Surr: 4-Bromofluorobenzene	96.3	70-130		%Rec	1	9/5/2020 7:27:30 AM
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	9/5/2020 7:27:30 AM
Surr: Toluene-d8	104	70-130		%Rec	1	9/5/2020 7:27:30 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg	1	9/5/2020 7:27:30 AM
Surr: BFB	94.7	70-130		%Rec	1	9/5/2020 7:27:30 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW08-B

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 12:25:00 PM

Lab ID: 2009304-024

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2020 7:04:56 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2020 7:04:56 PM
Surr: DNOP	57.6	30.4-154		%Rec	1	9/6/2020 7:04:56 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/8/2020 11:13:28 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	9/5/2020 7:57:04 AM
Toluene	ND	0.036		mg/Kg	1	9/5/2020 7:57:04 AM
Ethylbenzene	ND	0.036		mg/Kg	1	9/5/2020 7:57:04 AM
Xylenes, Total	ND	0.072		mg/Kg	1	9/5/2020 7:57:04 AM
Surr: 1,2-Dichloroethane-d4	97.2	70-130		%Rec	1	9/5/2020 7:57:04 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	9/5/2020 7:57:04 AM
Surr: Dibromofluoromethane	95.8	70-130		%Rec	1	9/5/2020 7:57:04 AM
Surr: Toluene-d8	103	70-130		%Rec	1	9/5/2020 7:57:04 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/5/2020 7:57:04 AM
Surr: BFB	93.4	70-130		%Rec	1	9/5/2020 7:57:04 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2009304

Date Reported: 9/11/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: Wash SW10-B

Project: Chaco 2308 3L 405H

Collection Date: 9/3/2020 12:30:00 PM

Lab ID: 2009304-025

Matrix: MEOH (SOIL)

Received Date: 9/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/6/2020 7:29:30 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2020 7:29:30 PM
Surr: DNOP	73.6	30.4-154		%Rec	1	9/6/2020 7:29:30 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CJS</b>
Chloride	ND	60		mg/Kg	20	9/8/2020 11:25:49 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	9/5/2020 8:27:10 AM
Toluene	ND	0.036		mg/Kg	1	9/5/2020 8:27:10 AM
Ethylbenzene	ND	0.036		mg/Kg	1	9/5/2020 8:27:10 AM
Xylenes, Total	ND	0.073		mg/Kg	1	9/5/2020 8:27:10 AM
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	1	9/5/2020 8:27:10 AM
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	9/5/2020 8:27:10 AM
Surr: Dibromofluoromethane	96.7	70-130		%Rec	1	9/5/2020 8:27:10 AM
Surr: Toluene-d8	103	70-130		%Rec	1	9/5/2020 8:27:10 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/5/2020 8:27:10 AM
Surr: BFB	93.5	70-130		%Rec	1	9/5/2020 8:27:10 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>MB-54979</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54979</b>	RunNo: <b>71656</b>								
Prep Date: <b>9/5/2020</b>	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2505307</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-54979</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54979</b>	RunNo: <b>71656</b>								
Prep Date: <b>9/5/2020</b>	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2505308</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

Sample ID: <b>MB-54983</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54983</b>	RunNo: <b>71671</b>								
Prep Date: <b>9/5/2020</b>	Analysis Date: <b>9/6/2020</b>	SeqNo: <b>2506197</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-54983</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54983</b>	RunNo: <b>71671</b>								
Prep Date: <b>9/5/2020</b>	Analysis Date: <b>9/6/2020</b>	SeqNo: <b>2506198</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Sample ID: <b>MB-55006</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>55006</b>	RunNo: <b>71685</b>								
Prep Date: <b>9/8/2020</b>	Analysis Date: <b>9/8/2020</b>	SeqNo: <b>2506856</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-55006</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>55006</b>	RunNo: <b>71685</b>								
Prep Date: <b>9/8/2020</b>	Analysis Date: <b>9/8/2020</b>	SeqNo: <b>2506857</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>LCS-54951</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54951</b>			RunNo: <b>71657</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2505398</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		79.7	30.4	154			

Sample ID: <b>LCS-54955</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54955</b>			RunNo: <b>71657</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2505399</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		77.3	30.4	154			

Sample ID: <b>LCS-54958</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54958</b>			RunNo: <b>71657</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/6/2020</b>			SeqNo: <b>2505400</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.2	70	130			
Surr: DNOP	2.2		5.000		43.5	30.4	154			

Sample ID: <b>LCS-54959</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54959</b>			RunNo: <b>71657</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/6/2020</b>			SeqNo: <b>2505401</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	99.0	70	130			
Surr: DNOP	3.6		5.000		71.3	30.4	154			

Sample ID: <b>MB-54951</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54951</b>			RunNo: <b>71657</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2505403</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4		10.00		84.3	30.4	154			

Sample ID: <b>MB-54955</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54955</b>			RunNo: <b>71657</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2505404</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.3		10.00		82.6	30.4	154			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>MB-54958</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54958</b>	RunNo: <b>71657</b>								
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/6/2020</b>	SeqNo: <b>2505405</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	5.6		10.00		56.0	30.4	154			

Sample ID: <b>MB-54959</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54959</b>	RunNo: <b>71657</b>								
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/6/2020</b>	SeqNo: <b>2505406</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.9		10.00		79.3	30.4	154			

Sample ID: <b>2009304-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SW Area SW01</b>	Batch ID: <b>54958</b>	RunNo: <b>71657</b>								
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/6/2020</b>	SeqNo: <b>2505513</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	9.9	49.50	0	115	47.4	136			
Surr: DNOP	3.4		4.950		69.6	30.4	154			

Sample ID: <b>2009304-021AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SW Area FS12</b>	Batch ID: <b>54959</b>	RunNo: <b>71657</b>								
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/6/2020</b>	SeqNo: <b>2505515</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.3	46.51	0	92.0	47.4	136			
Surr: DNOP	3.0		4.651		65.1	30.4	154			

Sample ID: <b>2009304-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SW Area SW01</b>	Batch ID: <b>54958</b>	RunNo: <b>71657</b>								
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/6/2020</b>	SeqNo: <b>2505521</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.9	49.31	0	123	47.4	136	6.14	43.4	
Surr: DNOP	3.8		4.931		77.9	30.4	154	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009304

11-Sep-20

Client: LTE

Project: Chaco 2308 3L 405H

Sample ID: 2009304-021AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: SW Area FS12		Batch ID: 54959		RunNo: 71657						
Prep Date: 9/4/2020		Analysis Date: 9/6/2020		SeqNo: 2505522		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.1	45.58	0	82.7	47.4	136	12.7	43.4	
Surr: DNOP	2.7		4.558		58.9	30.4	154	0	0	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>ics-54867</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54867</b>			RunNo: <b>71646</b>						
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/4/2020</b>			SeqNo: <b>2504664</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.3	72.5	106			
Surr: BFB	1100		1000		109	75.3	105			S

Sample ID: <b>mb-54867</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54867</b>			RunNo: <b>71646</b>						
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/4/2020</b>			SeqNo: <b>2504666</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.8	75.3	105			

Sample ID: <b>mb-54909</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54909</b>			RunNo: <b>71654</b>						
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2505130</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.3	75.3	105			

Sample ID: <b>ics-54909</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54909</b>			RunNo: <b>71654</b>						
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2505131</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.2	72.5	106			
Surr: BFB	1100		1000		108	75.3	105			S

Sample ID: <b>mb-54964</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54964</b>			RunNo: <b>71681</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/8/2020</b>			SeqNo: <b>2506602</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.0	75.3	105			

Sample ID: <b>ics-54964</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54964</b>			RunNo: <b>71681</b>						
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/8/2020</b>			SeqNo: <b>2506603</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		108	75.3	105			S

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>LCS-54867</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54867</b>			RunNo: <b>71646</b>						
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/4/2020</b>			SeqNo: <b>2504717</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.6	80	120			
Toluene	0.93	0.050	1.000	0	92.8	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.3	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: <b>mb-54867</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54867</b>			RunNo: <b>71646</b>						
Prep Date: <b>9/1/2020</b>	Analysis Date: <b>9/4/2020</b>			SeqNo: <b>2504719</b>		Units: <b>mg/Kg</b>				
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								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: <b>mb-54909</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54909</b>			RunNo: <b>71681</b>						
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/8/2020</b>			SeqNo: <b>2506639</b>		Units: <b>mg/Kg</b>				
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								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: <b>lcs-54909</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54909</b>			RunNo: <b>71681</b>						
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/8/2020</b>			SeqNo: <b>2506640</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.025	1.000	0	81.5	80	120			
Toluene	0.86	0.050	1.000	0	85.9	80	120			
Ethylbenzene	0.87	0.050	1.000	0	87.1	80	120			
Xylenes, Total	2.6	0.10	3.000	0	87.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>mb-54964</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8021B: Volatiles</b>					
Client ID: <b>PBS</b>	Batch ID: <b>54964</b>				RunNo: <b>71681</b>					
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/8/2020</b>				SeqNo: <b>2506653</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		97.8	80	120			

Sample ID: <b>LCS-54964</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8021B: Volatiles</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>54964</b>				RunNo: <b>71681</b>					
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/8/2020</b>				SeqNo: <b>2506654</b>	Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>S71640</b>	RunNo: <b>71640</b>								
Prep Date:	Analysis Date: <b>9/4/2020</b>	SeqNo: <b>2504224</b>	Units: <b>mg/Kg</b>							
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								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.4	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.2	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>S71640</b>	RunNo: <b>71640</b>								
Prep Date:	Analysis Date: <b>9/4/2020</b>	SeqNo: <b>2504225</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.6	70	130			
Toluene	1.0	0.050	1.000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.1	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.7	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID: <b>2009304-021ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>SW Area FS12</b>	Batch ID: <b>S71640</b>	RunNo: <b>71640</b>								
Prep Date:	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504227</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.020	0.7843	0	92.3	67.9	137			
Toluene	0.83	0.039	0.7843	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.36		0.3922		92.8	70	130			
Surr: 4-Bromofluorobenzene	0.37		0.3922		94.0	70	130			
Surr: Dibromofluoromethane	0.38		0.3922		96.4	70	130			
Surr: Toluene-d8	0.41		0.3922		104	70	130			

Sample ID: <b>2009304-021amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>SW Area FS12</b>	Batch ID: <b>S71640</b>	RunNo: <b>71640</b>								
Prep Date:	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504228</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.68	0.020	0.7843	0	86.8	67.9	137	6.14	20	
Toluene	0.79	0.039	0.7843	0	100	70	130	4.62	20	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>2009304-021amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>SW Area FS12</b>	Batch ID: <b>S71640</b>	RunNo: <b>71640</b>								
Prep Date:	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504228</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.37		0.3922		94.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.36		0.3922		91.9	70	130	0	0	
Surr: Dibromofluoromethane	0.37		0.3922		94.7	70	130	0	0	
Surr: Toluene-d8	0.40		0.3922		101	70	130	0	0	

Sample ID: <b>mb-54944</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54944</b>	RunNo: <b>71645</b>								
Prep Date: <b>9/3/2020</b>	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504612</b>	Units: <b>mg/Kg</b>							
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								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		97.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.5	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.46		0.5000		91.8	70	130			

Sample ID: <b>Ics-54944</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>54944</b>	RunNo: <b>71645</b>								
Prep Date: <b>9/3/2020</b>	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504722</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.3	80	120			
Toluene	0.96	0.050	1.000	0	96.1	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.47		0.5000		93.6	70	130			

Sample ID: <b>mb-54900</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54900</b>	RunNo: <b>71651</b>								
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504912</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.4	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>mb-54900</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54900</b>	RunNo: <b>71651</b>								
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504912</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.48		0.5000		96.6	70	130			

Sample ID: <b>lcs-54900</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>54900</b>	RunNo: <b>71651</b>								
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/5/2020</b>	SeqNo: <b>2504913</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130			
Surr: Toluene-d8	0.48		0.5000		95.1	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>mb1</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>G71640</b>			RunNo: <b>71640</b>						
Prep Date:	Analysis Date: <b>9/4/2020</b>			SeqNo: <b>2504255</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	470		500.0		94.4	70	130			

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>G71640</b>			RunNo: <b>71640</b>						
Prep Date:	Analysis Date: <b>9/4/2020</b>			SeqNo: <b>2504256</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.9	70	130			
Surr: BFB	470		500.0		94.0	70	130			

Sample ID: <b>2009304-022ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>SW Area FS13</b>	Batch ID: <b>G71640</b>			RunNo: <b>71640</b>						
Prep Date:	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2504259</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.02	0	85.6	49.2	122			
Surr: BFB	440		480.3		92.0	70	130			

Sample ID: <b>2009304-022amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>SW Area FS13</b>	Batch ID: <b>G71640</b>			RunNo: <b>71640</b>						
Prep Date:	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2504260</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.8	24.02	0	83.6	49.2	122	2.41	20	
Surr: BFB	440		480.3		92.2	70	130	0	0	

Sample ID: <b>mb-54944</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54944</b>			RunNo: <b>71645</b>						
Prep Date: <b>9/3/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2504782</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		103	70	130			

Sample ID: <b>lcs-54944</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54944</b>			RunNo: <b>71645</b>						
Prep Date: <b>9/3/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2504783</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 36 of 37

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009304

11-Sep-20

**Client:** LTE  
**Project:** Chaco 2308 3L 405H

Sample ID: <b>ics-54944</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54944</b>			RunNo: <b>71645</b>						
Prep Date: <b>9/3/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2504783</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.6	70	130			
Surr: BFB	530		500.0		107	70	130			

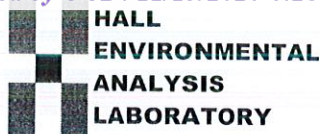
Sample ID: <b>mb-54900</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54900</b>			RunNo: <b>71651</b>						
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2504946</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	520		500.0		105	70	130			

Sample ID: <b>ics-54900</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54900</b>			RunNo: <b>71651</b>						
Prep Date: <b>9/2/2020</b>	Analysis Date: <b>9/5/2020</b>			SeqNo: <b>2504947</b>		Units: <b>%Rec</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	540		500.0		107	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: LTE

Work Order Number: 2009304

RcptNo: 1

Received By: Cheyenne Cason 9/4/2020 8:00:00 AM

Completed By: Isaiah Ortiz 9/4/2020 8:34:01 AM

Reviewed By: *LB**9/4/20**IOX*Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
5. Sample(s) in proper container(s)? Yes ☒ No ☐  
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒  
10. Were any sample containers received broken? Yes ☐ No ☒  
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
13. Is it clear what analyses were requested? Yes ☒ No ☐  
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(&lt;2 or &gt;12 unless noted)

Adjusted?

Checked by: *cmc 9/4/20*Special Handling (if applicable)

15. 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: \_\_\_\_\_

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			
2	1.1	Good	Yes			







## HALL ENVIRONMENTAL ANALYSIS LABORATORY



[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975      Fax 505-345-4107

Chain-of-Custody Record		Turn-Around Time:
Client:	LT Environmental	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> <b>Rush</b> <u>Next Day</u>
Mailing Address:	848 E. 2nd Ave. Durango, CO 81301	Project Name: Chaco 2308 3L 405H
Phone #:	970-385-1096	Project #: 99520004
email or Fax#:	<a href="mailto:shyde@ltenv.com">shyde@ltenv.com</a>	Project Manager: Stuart Hyde
QA/QC Package:	<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	
Accreditation:	<input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other _____	Sampler: Eric Carroll
<input type="checkbox"/> EDD (Type)		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		# of Coolers: <u>2</u>

[illegible]

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/3	1340	Ben Carroll			9/3/20	1340
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/3/2020	1910		one cur		9/14/20	0800

Remarks:

$2.0 - 0.2 = 1.8$   
 $1.1 - 0.2 = 0.9$



## Chain-of-Custody Record

Turn-Around Time:

Client: LT Environmental

☐ Standard ☒ Rush Next Day

Mailing Address: 848 E. 2nd Ave.

Chaco 2308 3L 405H

Durango, CO 81301

Project #:

99520004

Phone #: 970-385-1096

email or Fax#: [shyde@ltenv.com](mailto:shyde@ltenv.com)

Project Manager:

Stuart Hyde

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other \_\_\_\_\_☐ EDD (Type) \_\_\_\_\_

Sampler: Eric Carroll

On Ice: ☒ Yes ☐ No

# of Coolers: 2

Cooler Temp (including CF): See first page

Date Time Matrix Sample Name

Container Type and #

Preservative Type

HEAL No.

7009304

025

9/3/2020 1230 Soil SW Area Wash SW10-B

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

9/3/2020 Soil SW Area

1 4 oz.

Cool

Date: 9/3 Time: 1340 Relinquished by: Eric Carroll

Received by: Via: Date: 9/3/2020 Time: 1340

Date: 9/3/2020 Time: 1910 Relinquished by: Stuart Hyde

Received by: Via: Date: 9/4/2020 Time: 0800



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

BTEX / MTBE / TMB's (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

October 28, 2020

Stuart Hyde  
LTE  
848 East 2nd Avenue  
Durango, CO 81301  
TEL: (970) 946-1093  
FAX:

RE: Chaco 2308

OrderNo.: 2010957

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 28 sample(s) on 10/21/2020 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](http://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 #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH01 @ 0-2.5'

Project: Chaco 2308

Collection Date: 10/19/2020 11:50:00 AM

Lab ID: 2010957-001

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	360	59		mg/Kg	20	10/24/2020 2:46:45 AM	56009
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2020 3:07:39 AM	55960
Surr: BFB	95.6	70-130		%Rec	1	10/23/2020 3:07:39 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/22/2020 10:42:31 AM	55965
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/22/2020 10:42:31 AM	55965
Surr: DNOP	101	30.4-154		%Rec	1	10/22/2020 10:42:31 AM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 3:07:39 AM	55960
Toluene	ND	0.047		mg/Kg	1	10/23/2020 3:07:39 AM	55960
Ethylbenzene	ND	0.047		mg/Kg	1	10/23/2020 3:07:39 AM	55960
Xylenes, Total	ND	0.094		mg/Kg	1	10/23/2020 3:07:39 AM	55960
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	10/23/2020 3:07:39 AM	55960
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	10/23/2020 3:07:39 AM	55960
Surr: Dibromofluoromethane	109	70-130		%Rec	1	10/23/2020 3:07:39 AM	55960
Surr: Toluene-d8	103	70-130		%Rec	1	10/23/2020 3:07:39 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 36



## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH01 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/19/2020 12:00:00 PM

Lab ID: 2010957-002

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	61		mg/Kg	20	10/24/2020 3:23:58 AM	56009
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 4:36:51 AM	55960
Surr: BFB	94.9	70-130		%Rec	1	10/23/2020 4:36:51 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/22/2020 11:54:54 AM	55965
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/22/2020 11:54:54 AM	55965
Surr: DNOP	96.1	30.4-154		%Rec	1	10/22/2020 11:54:54 AM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 4:36:51 AM	55960
Toluene	ND	0.049		mg/Kg	1	10/23/2020 4:36:51 AM	55960
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 4:36:51 AM	55960
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2020 4:36:51 AM	55960
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	10/23/2020 4:36:51 AM	55960
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	10/23/2020 4:36:51 AM	55960
Surr: Dibromofluoromethane	111	70-130		%Rec	1	10/23/2020 4:36:51 AM	55960
Surr: Toluene-d8	104	70-130		%Rec	1	10/23/2020 4:36:51 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH02 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/19/2020 12:20:00 PM

Lab ID: 2010957-003

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	59	59		mg/Kg	20	10/24/2020 3:36:22 AM	56009
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 5:06:26 AM	55960
Surr: BFB	94.0	70-130		%Rec	1	10/23/2020 5:06:26 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/22/2020 12:18:54 PM	55965
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/22/2020 12:18:54 PM	55965
Surr: DNOP	114	30.4-154		%Rec	1	10/22/2020 12:18:54 PM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 5:06:26 AM	55960
Toluene	ND	0.049		mg/Kg	1	10/23/2020 5:06:26 AM	55960
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 5:06:26 AM	55960
Xylenes, Total	ND	0.097		mg/Kg	1	10/23/2020 5:06:26 AM	55960
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	10/23/2020 5:06:26 AM	55960
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	10/23/2020 5:06:26 AM	55960
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/23/2020 5:06:26 AM	55960
Surr: Toluene-d8	105	70-130		%Rec	1	10/23/2020 5:06:26 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH02 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/19/2020 12:30:00 PM

Lab ID: 2010957-004

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	10/24/2020 3:48:47 AM	56009
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/23/2020 5:36:13 AM	55960
Surr: BFB	95.4	70-130		%Rec	1	10/23/2020 5:36:13 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/22/2020 12:43:05 PM	55965
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/22/2020 12:43:05 PM	55965
Surr: DNOP	102	30.4-154		%Rec	1	10/22/2020 12:43:05 PM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 5:36:13 AM	55960
Toluene	ND	0.048		mg/Kg	1	10/23/2020 5:36:13 AM	55960
Ethylbenzene	ND	0.048		mg/Kg	1	10/23/2020 5:36:13 AM	55960
Xylenes, Total	ND	0.096		mg/Kg	1	10/23/2020 5:36:13 AM	55960
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	10/23/2020 5:36:13 AM	55960
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	10/23/2020 5:36:13 AM	55960
Surr: Dibromofluoromethane	105	70-130		%Rec	1	10/23/2020 5:36:13 AM	55960
Surr: Toluene-d8	104	70-130		%Rec	1	10/23/2020 5:36:13 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH03 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/19/2020 1:10:00 PM

Lab ID: 2010957-005

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	60	60		mg/Kg	20	10/24/2020 4:01:12 AM	56009
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2020 6:06:00 AM	55960
Surr: BFB	93.9	70-130		%Rec	1	10/23/2020 6:06:00 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/22/2020 1:07:14 PM	55965
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/22/2020 1:07:14 PM	55965
Surr: DNOP	97.6	30.4-154		%Rec	1	10/22/2020 1:07:14 PM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	10/23/2020 6:06:00 AM	55960
Toluene	ND	0.050		mg/Kg	1	10/23/2020 6:06:00 AM	55960
Ethylbenzene	ND	0.050		mg/Kg	1	10/23/2020 6:06:00 AM	55960
Xylenes, Total	ND	0.099		mg/Kg	1	10/23/2020 6:06:00 AM	55960
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	10/23/2020 6:06:00 AM	55960
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	10/23/2020 6:06:00 AM	55960
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/23/2020 6:06:00 AM	55960
Surr: Toluene-d8	104	70-130		%Rec	1	10/23/2020 6:06:00 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH03 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/19/2020 1:15:00 PM

Lab ID: 2010957-006

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	59		mg/Kg	20	10/24/2020 4:13:36 AM	56009
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2020 6:35:33 AM	55960
Surr: BFB	93.4	70-130		%Rec	1	10/23/2020 6:35:33 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	0.095		mg/Kg	1	10/22/2020 1:31:20 PM	55965
Motor Oil Range Organics (MRO)	ND	0.47		mg/Kg	1	10/22/2020 1:31:20 PM	55965
Surr: DNOP	103	30.4-154		%Rec	1	10/22/2020 1:31:20 PM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 6:35:33 AM	55960
Toluene	ND	0.047		mg/Kg	1	10/23/2020 6:35:33 AM	55960
Ethylbenzene	ND	0.047		mg/Kg	1	10/23/2020 6:35:33 AM	55960
Xylenes, Total	ND	0.094		mg/Kg	1	10/23/2020 6:35:33 AM	55960
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	10/23/2020 6:35:33 AM	55960
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	10/23/2020 6:35:33 AM	55960
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/23/2020 6:35:33 AM	55960
Surr: Toluene-d8	105	70-130		%Rec	1	10/23/2020 6:35:33 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH04 @ 7.5-10'

Project: Chaco 2308

Collection Date: 10/19/2020 1:40:00 PM

Lab ID: 2010957-007

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	64	60		mg/Kg	20	10/27/2020 11:53:40 AM	56055
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 7:05:14 AM	55960
Surr: BFB	89.7	70-130		%Rec	1	10/23/2020 7:05:14 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/22/2020 1:55:26 PM	55965
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/22/2020 1:55:26 PM	55965
Surr: DNOP	112	30.4-154		%Rec	1	10/22/2020 1:55:26 PM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 7:05:14 AM	55960
Toluene	ND	0.049		mg/Kg	1	10/23/2020 7:05:14 AM	55960
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 7:05:14 AM	55960
Xylenes, Total	ND	0.097		mg/Kg	1	10/23/2020 7:05:14 AM	55960
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	10/23/2020 7:05:14 AM	55960
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	10/23/2020 7:05:14 AM	55960
Surr: Dibromofluoromethane	111	70-130		%Rec	1	10/23/2020 7:05:14 AM	55960
Surr: Toluene-d8	101	70-130		%Rec	1	10/23/2020 7:05:14 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH04 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/19/2020 1:50:00 PM

Lab ID: 2010957-008

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	10/27/2020 12:30:54 PM	56055
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 7:34:53 AM	55960
Surr: BFB	92.2	70-130		%Rec	1	10/23/2020 7:34:53 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/22/2020 2:19:42 PM	55965
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/22/2020 2:19:42 PM	55965
Surr: DNOP	95.9	30.4-154		%Rec	1	10/22/2020 2:19:42 PM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	10/23/2020 7:34:53 AM	55960
Toluene	ND	0.049		mg/Kg	1	10/23/2020 7:34:53 AM	55960
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 7:34:53 AM	55960
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2020 7:34:53 AM	55960
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%Rec	1	10/23/2020 7:34:53 AM	55960
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	10/23/2020 7:34:53 AM	55960
Surr: Dibromofluoromethane	106	70-130		%Rec	1	10/23/2020 7:34:53 AM	55960
Surr: Toluene-d8	102	70-130		%Rec	1	10/23/2020 7:34:53 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH05 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/19/2020 2:20:00 PM

Lab ID: 2010957-009

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	10/27/2020 2:22:36 PM	56055
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 8:04:30 AM	55960
Surr: BFB	94.3	70-130		%Rec	1	10/23/2020 8:04:30 AM	55960
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	10/22/2020 2:43:48 PM	55965
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	10/22/2020 2:43:48 PM	55965
Surr: DNOP	99.1	30.4-154		%Rec	1	10/22/2020 2:43:48 PM	55965
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	10/23/2020 8:04:30 AM	55960
Toluene	ND	0.049		mg/Kg	1	10/23/2020 8:04:30 AM	55960
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 8:04:30 AM	55960
Xylenes, Total	ND	0.099		mg/Kg	1	10/23/2020 8:04:30 AM	55960
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	10/23/2020 8:04:30 AM	55960
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	10/23/2020 8:04:30 AM	55960
Surr: Dibromofluoromethane	109	70-130		%Rec	1	10/23/2020 8:04:30 AM	55960
Surr: Toluene-d8	102	70-130		%Rec	1	10/23/2020 8:04:30 AM	55960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH05 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/19/2020 2:26:00 PM

Lab ID: 2010957-010

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	59		mg/Kg	20	10/27/2020 2:35:00 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/23/2020 3:19:33 PM	55973
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/23/2020 3:19:33 PM	55973
Surr: DNOP	84.9	30.4-154		%Rec	1	10/23/2020 3:19:33 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/23/2020 2:25:31 PM	55969
Surr: BFB	98.8	75.3-105		%Rec	1	10/23/2020 2:25:31 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 2:25:31 PM	55969
Toluene	ND	0.048		mg/Kg	1	10/23/2020 2:25:31 PM	55969
Ethylbenzene	ND	0.048		mg/Kg	1	10/23/2020 2:25:31 PM	55969
Xylenes, Total	ND	0.097		mg/Kg	1	10/23/2020 2:25:31 PM	55969
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	10/23/2020 2:25:31 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH06 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/19/2020 3:00:00 PM

Lab ID: 2010957-011

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/27/2020 2:47:25 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/23/2020 3:49:05 PM	55973
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/23/2020 3:49:05 PM	55973
Surr: DNOP	74.2	30.4-154		%Rec	1	10/23/2020 3:49:05 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/23/2020 3:35:49 PM	55969
Surr: BFB	95.3	75.3-105		%Rec	1	10/23/2020 3:35:49 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	10/23/2020 3:35:49 PM	55969
Toluene	ND	0.048		mg/Kg	1	10/23/2020 3:35:49 PM	55969
Ethylbenzene	ND	0.048		mg/Kg	1	10/23/2020 3:35:49 PM	55969
Xylenes, Total	ND	0.097		mg/Kg	1	10/23/2020 3:35:49 PM	55969
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	10/23/2020 3:35:49 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH06 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/19/2020 3:10:00 PM

Lab ID: 2010957-012

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	10/27/2020 2:59:50 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/23/2020 3:58:53 PM	55973
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/23/2020 3:58:53 PM	55973
Surr: DNOP	77.2	30.4-154		%Rec	1	10/23/2020 3:58:53 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2020 4:47:42 PM	55969
Surr: BFB	98.3	75.3-105		%Rec	1	10/23/2020 4:47:42 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	10/23/2020 4:47:42 PM	55969
Toluene	ND	0.050		mg/Kg	1	10/23/2020 4:47:42 PM	55969
Ethylbenzene	ND	0.050		mg/Kg	1	10/23/2020 4:47:42 PM	55969
Xylenes, Total	ND	0.099		mg/Kg	1	10/23/2020 4:47:42 PM	55969
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	10/23/2020 4:47:42 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH07 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/20/2020 9:40:00 AM

Lab ID: 2010957-013

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	730	60		mg/Kg	20	10/27/2020 3:12:14 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/23/2020 4:08:38 PM	55973
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/23/2020 4:08:38 PM	55973
Surr: DNOP	102	30.4-154		%Rec	1	10/23/2020 4:08:38 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 5:11:27 PM	55969
Surr: BFB	94.9	75.3-105		%Rec	1	10/23/2020 5:11:27 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 5:11:27 PM	55969
Toluene	ND	0.049		mg/Kg	1	10/23/2020 5:11:27 PM	55969
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 5:11:27 PM	55969
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2020 5:11:27 PM	55969
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	10/23/2020 5:11:27 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH07 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/20/2020 10:00:00 AM

Lab ID: 2010957-014

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	400	60		mg/Kg	20	10/27/2020 3:24:39 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/23/2020 4:18:22 PM	55973
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/23/2020 4:18:22 PM	55973
Surr: DNOP	96.4	30.4-154		%Rec	1	10/23/2020 4:18:22 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2020 5:34:45 PM	55969
Surr: BFB	94.4	75.3-105		%Rec	1	10/23/2020 5:34:45 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 5:34:45 PM	55969
Toluene	ND	0.047		mg/Kg	1	10/23/2020 5:34:45 PM	55969
Ethylbenzene	ND	0.047		mg/Kg	1	10/23/2020 5:34:45 PM	55969
Xylenes, Total	ND	0.094		mg/Kg	1	10/23/2020 5:34:45 PM	55969
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	1	10/23/2020 5:34:45 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH08 @ 0-2.5'

Project: Chaco 2308

Collection Date: 10/20/2020 10:10:00 AM

Lab ID: 2010957-015

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/27/2020 3:37:04 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/23/2020 4:28:10 PM	55973
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/23/2020 4:28:10 PM	55973
Surr: DNOP	90.7	30.4-154		%Rec	1	10/23/2020 4:28:10 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2020 5:58:08 PM	55969
Surr: BFB	96.7	75.3-105		%Rec	1	10/23/2020 5:58:08 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	10/23/2020 5:58:08 PM	55969
Toluene	ND	0.047		mg/Kg	1	10/23/2020 5:58:08 PM	55969
Ethylbenzene	ND	0.047		mg/Kg	1	10/23/2020 5:58:08 PM	55969
Xylenes, Total	ND	0.094		mg/Kg	1	10/23/2020 5:58:08 PM	55969
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/23/2020 5:58:08 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH08 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/20/2020 10:20:00 AM

Lab ID: 2010957-016

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	290	60		mg/Kg	20	10/27/2020 3:49:28 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/23/2020 4:37:54 PM	55973
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/23/2020 4:37:54 PM	55973
Surr: DNOP	87.8	30.4-154		%Rec	1	10/23/2020 4:37:54 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 6:21:32 PM	55969
Surr: BFB	97.4	75.3-105		%Rec	1	10/23/2020 6:21:32 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	10/23/2020 6:21:32 PM	55969
Toluene	ND	0.049		mg/Kg	1	10/23/2020 6:21:32 PM	55969
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 6:21:32 PM	55969
Xylenes, Total	ND	0.099		mg/Kg	1	10/23/2020 6:21:32 PM	55969
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/23/2020 6:21:32 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH09 @ 0-2.5'

Project: Chaco 2308

Collection Date: 10/20/2020 10:50:00 AM

Lab ID: 2010957-017

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	59		mg/Kg	20	10/27/2020 4:26:42 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/23/2020 4:47:39 PM	55973
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/23/2020 4:47:39 PM	55973
Surr: DNOP	93.2	30.4-154		%Rec	1	10/23/2020 4:47:39 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2020 6:44:54 PM	55969
Surr: BFB	97.0	75.3-105		%Rec	1	10/23/2020 6:44:54 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	10/23/2020 6:44:54 PM	55969
Toluene	ND	0.050		mg/Kg	1	10/23/2020 6:44:54 PM	55969
Ethylbenzene	ND	0.050		mg/Kg	1	10/23/2020 6:44:54 PM	55969
Xylenes, Total	ND	0.099		mg/Kg	1	10/23/2020 6:44:54 PM	55969
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/23/2020 6:44:54 PM	55969

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH09 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/20/2020 11:00:00 AM

Lab ID: 2010957-018

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/27/2020 4:39:06 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/23/2020 4:57:22 PM	55973
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/23/2020 4:57:22 PM	55973
Surr: DNOP	87.9	30.4-154		%Rec	1	10/23/2020 4:57:22 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 7:08:17 PM	55969
Surr: BFB	96.4	75.3-105		%Rec	1	10/23/2020 7:08:17 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	10/23/2020 7:08:17 PM	55969
Toluene	ND	0.049		mg/Kg	1	10/23/2020 7:08:17 PM	55969
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 7:08:17 PM	55969
Xylenes, Total	ND	0.099		mg/Kg	1	10/23/2020 7:08:17 PM	55969
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/23/2020 7:08:17 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH10 @ 0-2.5'

Project: Chaco 2308

Collection Date: 10/20/2020 11:30:00 AM

Lab ID: 2010957-019

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	410	60		mg/Kg	20	10/27/2020 4:51:30 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/23/2020 5:07:03 PM	55973
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/23/2020 5:07:03 PM	55973
Surr: DNOP	87.0	30.4-154		%Rec	1	10/23/2020 5:07:03 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2020 7:31:41 PM	55969
Surr: BFB	95.0	75.3-105		%Rec	1	10/23/2020 7:31:41 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	10/23/2020 7:31:41 PM	55969
Toluene	ND	0.047		mg/Kg	1	10/23/2020 7:31:41 PM	55969
Ethylbenzene	ND	0.047		mg/Kg	1	10/23/2020 7:31:41 PM	55969
Xylenes, Total	ND	0.093		mg/Kg	1	10/23/2020 7:31:41 PM	55969
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	10/23/2020 7:31:41 PM	55969

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH10 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/20/2020 11:45:00 AM

Lab ID: 2010957-020

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	84	60		mg/Kg	20	10/27/2020 5:03:55 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/23/2020 5:16:46 PM	55973
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/23/2020 5:16:46 PM	55973
Surr: DNOP	85.4	30.4-154		%Rec	1	10/23/2020 5:16:46 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2020 8:41:50 PM	55969
Surr: BFB	95.3	75.3-105		%Rec	1	10/23/2020 8:41:50 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 8:41:50 PM	55969
Toluene	ND	0.047		mg/Kg	1	10/23/2020 8:41:50 PM	55969
Ethylbenzene	ND	0.047		mg/Kg	1	10/23/2020 8:41:50 PM	55969
Xylenes, Total	ND	0.094		mg/Kg	1	10/23/2020 8:41:50 PM	55969
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	10/23/2020 8:41:50 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH11 @ 0-2.5'

Project: Chaco 2308

Collection Date: 10/20/2020 12:00:00 PM

Lab ID: 2010957-021

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	440	59		mg/Kg	20	10/27/2020 5:16:20 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	1000	93		mg/Kg	10	10/23/2020 5:26:33 PM	55973
Motor Oil Range Organics (MRO)	970	460		mg/Kg	10	10/23/2020 5:26:33 PM	55973
Surr: DNOP	0	30.4-154	S	%Rec	10	10/23/2020 5:26:33 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/23/2020 9:05:23 PM	55969
Surr: BFB	101	75.3-105		%Rec	1	10/23/2020 9:05:23 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	10/23/2020 9:05:23 PM	55969
Toluene	ND	0.048		mg/Kg	1	10/23/2020 9:05:23 PM	55969
Ethylbenzene	ND	0.048		mg/Kg	1	10/23/2020 9:05:23 PM	55969
Xylenes, Total	ND	0.096		mg/Kg	1	10/23/2020 9:05:23 PM	55969
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	10/23/2020 9:05:23 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH11 @ 12.5-15'

Project: Chaco 2308

Collection Date: 10/20/2020 12:15:00 PM

Lab ID: 2010957-022

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	500	60		mg/Kg	20	10/27/2020 5:28:45 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/23/2020 5:36:22 PM	55973
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/23/2020 5:36:22 PM	55973
Surr: DNOP	78.7	30.4-154		%Rec	1	10/23/2020 5:36:22 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 9:28:57 PM	55969
Surr: BFB	92.9	75.3-105		%Rec	1	10/23/2020 9:28:57 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	10/23/2020 9:28:57 PM	55969
Toluene	ND	0.049		mg/Kg	1	10/23/2020 9:28:57 PM	55969
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 9:28:57 PM	55969
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2020 9:28:57 PM	55969
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	10/23/2020 9:28:57 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH12 @ 0-2.5'

Project: Chaco 2308

Collection Date: 10/20/2020 1:00:00 PM

Lab ID: 2010957-023

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	280	59		mg/Kg	20	10/27/2020 5:41:09 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	230	9.7		mg/Kg	1	10/23/2020 5:46:13 PM	55973
Motor Oil Range Organics (MRO)	200	49		mg/Kg	1	10/23/2020 5:46:13 PM	55973
Surr: DNOP	124	30.4-154		%Rec	1	10/23/2020 5:46:13 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	9.6		mg/Kg	2	10/23/2020 9:52:28 PM	55969
Surr: BFB	103	75.3-105		%Rec	2	10/23/2020 9:52:28 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.048		mg/Kg	2	10/23/2020 9:52:28 PM	55969
Toluene	ND	0.096		mg/Kg	2	10/23/2020 9:52:28 PM	55969
Ethylbenzene	ND	0.096		mg/Kg	2	10/23/2020 9:52:28 PM	55969
Xylenes, Total	ND	0.19		mg/Kg	2	10/23/2020 9:52:28 PM	55969
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	2	10/23/2020 9:52:28 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH12 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/20/2020 1:10:00 PM

Lab ID: 2010957-024

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	2400	60		mg/Kg	20	10/27/2020 5:53:33 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	28	9.4		mg/Kg	1	10/23/2020 6:05:56 PM	55973
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/23/2020 6:05:56 PM	55973
Surr: DNOP	98.1	30.4-154		%Rec	1	10/23/2020 6:05:56 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	11	9.7		mg/Kg	2	10/24/2020 8:24:10 PM	55969
Surr: BFB	114	75.3-105	S	%Rec	2	10/24/2020 8:24:10 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	0.053	0.048		mg/Kg	2	10/24/2020 8:24:10 PM	55969
Toluene	ND	0.097		mg/Kg	2	10/24/2020 8:24:10 PM	55969
Ethylbenzene	ND	0.097		mg/Kg	2	10/24/2020 8:24:10 PM	55969
Xylenes, Total	0.28	0.19		mg/Kg	2	10/24/2020 8:24:10 PM	55969
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	2	10/24/2020 8:24:10 PM	55969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH12 @ 7.5-9'

Project: Chaco 2308

Collection Date: 10/20/2020 1:20:00 PM

Lab ID: 2010957-025

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	790	59		mg/Kg	20	10/27/2020 6:05:58 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	18	10		mg/Kg	1	10/23/2020 6:15:48 PM	55973
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/23/2020 6:15:48 PM	55973
Surr: DNOP	111	30.4-154		%Rec	1	10/23/2020 6:15:48 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/23/2020 10:39:13 PM	55969
Surr: BFB	103	75.3-105		%Rec	1	10/23/2020 10:39:13 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	10/23/2020 10:39:13 PM	55969
Toluene	ND	0.048		mg/Kg	1	10/23/2020 10:39:13 PM	55969
Ethylbenzene	ND	0.048		mg/Kg	1	10/23/2020 10:39:13 PM	55969
Xylenes, Total	ND	0.097		mg/Kg	1	10/23/2020 10:39:13 PM	55969
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/23/2020 10:39:13 PM	55969

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH13 @ 0-2.5'

Project: Chaco 2308

Collection Date: 10/20/2020 1:40:00 PM

Lab ID: 2010957-026

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/27/2020 6:18:22 PM	56055
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/23/2020 6:25:40 PM	55973
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/23/2020 6:25:40 PM	55973
Surr: DNOP	92.4	30.4-154		%Rec	1	10/23/2020 6:25:40 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 11:02:49 PM	55969
Surr: BFB	94.6	75.3-105		%Rec	1	10/23/2020 11:02:49 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	10/23/2020 11:02:49 PM	55969
Toluene	ND	0.049		mg/Kg	1	10/23/2020 11:02:49 PM	55969
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 11:02:49 PM	55969
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2020 11:02:49 PM	55969
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	10/23/2020 11:02:49 PM	55969

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH13 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/20/2020 2:00:00 PM

Lab ID: 2010957-027

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	89	61		mg/Kg	20	10/26/2020 2:18:19 PM	56038
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/23/2020 6:35:32 PM	55973
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/23/2020 6:35:32 PM	55973
Surr: DNOP	91.4	30.4-154		%Rec	1	10/23/2020 6:35:32 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 11:26:20 PM	55969
Surr: BFB	94.0	75.3-105		%Rec	1	10/23/2020 11:26:20 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	10/23/2020 11:26:20 PM	55969
Toluene	ND	0.049		mg/Kg	1	10/23/2020 11:26:20 PM	55969
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 11:26:20 PM	55969
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2020 11:26:20 PM	55969
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	10/23/2020 11:26:20 PM	55969

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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## Analytical Report

Lab Order 2010957

Date Reported: 10/28/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH14 @ 2.5-5'

Project: Chaco 2308

Collection Date: 10/20/2020 2:30:00 PM

Lab ID: 2010957-028

Matrix: SOIL

Received Date: 10/21/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/26/2020 2:30:44 PM	56038
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/23/2020 6:45:22 PM	55973
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/23/2020 6:45:22 PM	55973
Surr: DNOP	69.7	30.4-154		%Rec	1	10/23/2020 6:45:22 PM	55973
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2020 11:49:58 PM	55969
Surr: BFB	95.9	75.3-105		%Rec	1	10/23/2020 11:49:58 PM	55969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	10/23/2020 11:49:58 PM	55969
Toluene	ND	0.049		mg/Kg	1	10/23/2020 11:49:58 PM	55969
Ethylbenzene	ND	0.049		mg/Kg	1	10/23/2020 11:49:58 PM	55969
Xylenes, Total	ND	0.098		mg/Kg	1	10/23/2020 11:49:58 PM	55969
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	10/23/2020 11:49:58 PM	55969

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: <b>MB-56009</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>56009</b>		RunNo: <b>72886</b>							
Prep Date: <b>10/23/2020</b>	Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2563358</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-56009</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>56009</b>		RunNo: <b>72886</b>							
Prep Date: <b>10/23/2020</b>	Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2563359</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

Sample ID: <b>MB-56038</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>56038</b>		RunNo: <b>72931</b>							
Prep Date: <b>10/26/2020</b>	Analysis Date: <b>10/26/2020</b>		SeqNo: <b>2564017</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-56038</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>56038</b>		RunNo: <b>72931</b>							
Prep Date: <b>10/26/2020</b>	Analysis Date: <b>10/26/2020</b>		SeqNo: <b>2564018</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Sample ID: <b>MB-56055</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>56055</b>		RunNo: <b>72930</b>							
Prep Date: <b>10/27/2020</b>	Analysis Date: <b>10/27/2020</b>		SeqNo: <b>2565213</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-56055</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>56055</b>		RunNo: <b>72930</b>							
Prep Date: <b>10/27/2020</b>	Analysis Date: <b>10/27/2020</b>		SeqNo: <b>2565214</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: <b>2010957-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>BH01 @ 0-2.5'</b>	Batch ID: <b>55965</b>	RunNo: <b>72844</b>								
Prep Date: <b>10/21/2020</b>	Analysis Date: <b>10/22/2020</b>	SeqNo: <b>2560333</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	8.7	43.63	0	97.4	15	184			
Surr: DNOP	4.3		4.363		99.0	30.4	154			

Sample ID: <b>LCS-55965</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>55965</b>	RunNo: <b>72844</b>								
Prep Date: <b>10/21/2020</b>	Analysis Date: <b>10/22/2020</b>	SeqNo: <b>2560334</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	63	10	50.00	0	127	70	130			
Surr: DNOP	6.1		5.000		122	30.4	154			

Sample ID: <b>MB-55965</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>55965</b>	RunNo: <b>72844</b>								
Prep Date: <b>10/21/2020</b>	Analysis Date: <b>10/22/2020</b>	SeqNo: <b>2560335</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		123	30.4	154			

Sample ID: <b>2010957-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>BH01 @ 0-2.5'</b>	Batch ID: <b>55965</b>	RunNo: <b>72844</b>								
Prep Date: <b>10/21/2020</b>	Analysis Date: <b>10/22/2020</b>	SeqNo: <b>2560542</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	8.5	42.34	0	98.8	15	184	1.57	23.9	
Surr: DNOP	4.2		4.234		99.1	30.4	154	0	0	

Sample ID: <b>LCS-55972</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>55972</b>	RunNo: <b>72876</b>								
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/23/2020</b>	SeqNo: <b>2561698</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.1	30.4	154			

Sample ID: <b>MB-55972</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>55972</b>	RunNo: <b>72876</b>								
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/23/2020</b>	SeqNo: <b>2561699</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: <b>MB-55972</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>55972</b>		RunNo: <b>72876</b>							
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2561699</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.5	30.4	154			

Sample ID: <b>2010957-010AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>BH05 @ 12.5-15'</b>	Batch ID: <b>55973</b>		RunNo: <b>72876</b>							
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562796</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	9.3	46.73	0	84.3	15	184			
Surr: DNOP	4.6		4.673		97.8	30.4	154			

Sample ID: <b>2010957-010AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>BH05 @ 12.5-15'</b>	Batch ID: <b>55973</b>		RunNo: <b>72876</b>							
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562797</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.3	46.25	0	78.7	15	184	7.81	23.9	
Surr: DNOP	4.0		4.625		87.5	30.4	154	0	0	

Sample ID: <b>LCS-55973</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>55973</b>		RunNo: <b>72876</b>							
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562830</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.2	70	130			
Surr: DNOP	4.8		5.000		95.8	30.4	154			

Sample ID: <b>MB-55973</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>55973</b>		RunNo: <b>72876</b>							
Prep Date: <b>10/22/2020</b>	Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562832</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		94.8	30.4	154			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: 2010957-011ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH06 @ 2.5-5'	Batch ID: 55969	RunNo: 72897								
Prep Date: 10/21/2020	Analysis Date: 10/23/2020	SeqNo: 2562358 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.70	0	94.1	61.3	114			
Surr: BFB	1000		988.1		104	75.3	105			

Sample ID: 2010957-011amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH06 @ 2.5-5'	Batch ID: 55969	RunNo: 72897								
Prep Date: 10/21/2020	Analysis Date: 10/23/2020	SeqNo: 2562359 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.75	0	91.4	61.3	114	2.65	20	
Surr: BFB	1100		990.1		107	75.3	105	0	0	S

Sample ID: lcs-55969	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 55969	RunNo: 72897								
Prep Date: 10/21/2020	Analysis Date: 10/23/2020	SeqNo: 2562394 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.8	72.5	106			
Surr: BFB	1100		1000		108	75.3	105			S

Sample ID: mb-55969	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 55969	RunNo: 72897								
Prep Date: 10/21/2020	Analysis Date: 10/23/2020	SeqNo: 2562396 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.1	75.3	105			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: <b>2010957-010ams</b>		SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>BH05 @ 12.5-15'</b>		Batch ID: <b>55969</b>		RunNo: <b>72897</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562404</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9690	0	95.4	76.3	120			
Toluene	0.98	0.048	0.9690	0	101	78.5	120			
Ethylbenzene	1.0	0.048	0.9690	0	104	78.1	124			
Xylenes, Total	3.0	0.097	2.907	0	104	79.3	125			
Surr: 4-Bromofluorobenzene	0.99		0.9690		102	80	120			

Sample ID: <b>2010957-010amsd</b>		SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>BH05 @ 12.5-15'</b>		Batch ID: <b>55969</b>		RunNo: <b>72897</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562405</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9497	0	95.0	76.3	120	2.42	20	
Toluene	0.96	0.047	0.9497	0	101	78.5	120	2.36	20	
Ethylbenzene	0.99	0.047	0.9497	0	104	78.1	124	1.77	20	
Xylenes, Total	3.0	0.095	2.849	0	105	79.3	125	1.73	20	
Surr: 4-Bromofluorobenzene	0.97		0.9497		102	80	120	0	0	

Sample ID: <b>LCS-55969</b>		SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>LCSS</b>		Batch ID: <b>55969</b>		RunNo: <b>72897</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562443</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.0	80	120			
Toluene	0.95	0.050	1.000	0	95.1	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID: <b>mb-55969</b>		SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>		Batch ID: <b>55969</b>		RunNo: <b>72897</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2562445</b>		Units: <b>mg/Kg</b>				
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								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: <b>mb-55960</b>		SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>						
Client ID: <b>PBS</b>		Batch ID: <b>55960</b>		RunNo: <b>72871</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/22/2020</b>		SeqNo: <b>2561413</b>		Units: <b>mg/Kg</b>				
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								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.4	70	130			
Surr: 4-Bromofluorobenzene	0.57		0.5000		115	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.3	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			

Sample ID: <b>lcs-55960</b>		SampType: <b>LCS4</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>						
Client ID: <b>BatchQC</b>		Batch ID: <b>55960</b>		RunNo: <b>72871</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/22/2020</b>		SeqNo: <b>2561414</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.025	1.000	0	80.3	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.3	70	130			
Surr: 4-Bromofluorobenzene	0.55		0.5000		111	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.3	70	130			
Surr: Toluene-d8	0.53		0.5000		106	70	130			

Sample ID: <b>2010957-001ams</b>		SampType: <b>MS4</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>						
Client ID: <b>BH01 @ 0-2.5'</b>		Batch ID: <b>55960</b>		RunNo: <b>72871</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2561416</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.024	0.9756	0	98.7	71.1	115			
Toluene	1.1	0.049	0.9756	0	112	79.6	132			
Ethylbenzene	1.1	0.049	0.9756	0	113	83.8	134			
Xylenes, Total	3.3	0.098	2.927	0	112	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.50		0.4878		103	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.4878		109	70	130			
Surr: Dibromofluoromethane	0.53		0.4878		109	70	130			
Surr: Toluene-d8	0.51		0.4878		104	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: <b>2010957-001amsd</b>		SampType: <b>MSD4</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>						
Client ID: <b>BH01 @ 0-2.5'</b>		Batch ID: <b>55960</b>		RunNo: <b>72871</b>						
Prep Date: <b>10/21/2020</b>		Analysis Date: <b>10/23/2020</b>		SeqNo: <b>2561417</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9804	0	103	71.1	115	4.74	20	
Toluene	1.1	0.049	0.9804	0	114	79.6	132	2.54	20	
Ethylbenzene	1.2	0.049	0.9804	0	118	83.8	134	4.85	20	
Xylenes, Total	3.4	0.098	2.941	0	116	82.4	132	4.01	20	
Surr: 1,2-Dichloroethane-d4	0.51		0.4902		104	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.54		0.4902		111	70	130	0	0	
Surr: Dibromofluoromethane	0.55		0.4902		112	70	130	0	0	
Surr: Toluene-d8	0.51		0.4902		104	70	130	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010957

28-Oct-20

**Client:** LTE  
**Project:** Chaco 2308

Sample ID: <b>mb-55960</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>55960</b>	RunNo: <b>72871</b>								
Prep Date: <b>10/21/2020</b>	Analysis Date: <b>10/22/2020</b>	SeqNo: <b>2561431</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	470		500.0		94.8	70	130			

Sample ID: <b>lcs-55960</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>55960</b>	RunNo: <b>72871</b>								
Prep Date: <b>10/21/2020</b>	Analysis Date: <b>10/22/2020</b>	SeqNo: <b>2561432</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	94.0	70	130			
Surr: BFB	480		500.0		96.7	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: **LTE**Work Order Number: **2010957**RcptNo: **1**Received By: **Cheyenne Cason** 10/21/2020 8:10:00 AMCompleted By: **Erin Melendrez** 10/21/2020 9:13:49 AMReviewed By: **S.P.A. 10/21/20**

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: **JR 10/21/20**

### Special Handling (if applicable)

15. 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: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good				





## Chain-of-Custody Record

Client: LTEMailing Address: 844 E 2nd AveDurango, CO. 81301Phone #: 970-385-1096

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other \_\_\_\_\_☐ EDD (Type) \_\_\_\_\_

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Chaco 2308

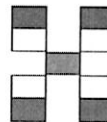
Project #:

077920007

Project Manager:

Stuart HydeSampler: E. CarrollOn Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 3.9 ± 0.2 = 3.9 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10/20	946	soil	BH07@ 2.5-5'	1402	cool	-013
	1000		BH07@ 12.5-15'			-014
	1010		BH08@ 0-2.5'			-015
	1020		BH08@ 12.5-15'			-016
	1050		BH09@ 0-2.5'			-017
	1100		BH09@ 12.5-15'			-018
	1130		BH10@ 0-2.5'			-019
	1145		BH10@ 12.5-15'			-020
	1200		BH11@ 0-2.5'			-021
	1215		BH11@ 12.5-15'			-022
	1300		BH12@ 0-2.5'			-023
	1315		BH12@ 2.5-5'			-024

Date: 10/20 Time: 1407 Relinquished by: E. CarrollDate: 10/20/2020 Time: 1803 Relinquished by: Michael WaetenReceived by: Art W... Via: \_\_\_\_\_ Date: 10/20/2020 Time: 1407Received by: Art W... Via: \_\_\_\_\_ Date: 10/20/2020 Time: 0810

## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

MTBE / TMB's (8021)	TPH: 8015D (GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)										
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>													

Remarks:

Seal intact on cooler on 10/20/20





## APPENDIX

# D WSP BORING LOGS



Advancing Opportunity

## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:

8401

Project:

Chaco 2308

Date:

10/19

Project Number:

077920007

Logged By:

E. Carroll

Drilled By:

Enviro-Drill

Drilling Method:

Hollow Stem Auger

Sampling Method:

Continuous

Seal:

Hydrated Bentonite Chips

Grout:

Bentonite-Cement Slurry

Diameter:

2"

Length:

Diameter:

2"

Length:

Hole Diameter:

6"

Depth to Liquid:

NA

Total Depth:

15'

Depth to Water:

NA

Elevation:

5,688

Detector:

PID

Gravel Pack:

10-20 Silica Sand

Casing Type:

Schedule 40 PVC

Screen Type:

Schedule 40 PVC

Slot:

0.010"

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				moist, coarse sand, trace silt dark brown	
	m	3.5	N		1				Q <sub>tab</sub> = 2.6 / 316 mg/L	
					2	1				
					3				moist, Dark brown and black sand and clay	
	m	4.6	N		4				Q <sub>tab</sub> = 1.0 / <120 mg/L	
					5					
					6				Dry black, clay, few sand	
	D	3.5	N		7				Q <sub>tab</sub> = 1.0 < 120 mg/L	
					8	2			SAA Dry black, weathered shale	
					9				Q <sub>tab</sub> = 1.0 < 120 mg/L	
	P	4.1	N		10					
					11				SAA	
					12				Q <sub>tab</sub> = 0.8 < 120	
					13	3			SAA	
					14				Q <sub>tab</sub> = 0.8 < 120	
					15					





## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH02</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/19</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b> Length: <b>6'</b>	Hole Diameter: <b>6"</b> Depth to Liquid: <b>NA</b>
Screen Type: <b>Schedule 40 PVC</b> Slot: <b>0.010"</b>		Diameter: <b>2"</b> Length: <b>15'</b>	Total Depth: <b>15'</b> Depth to Water: <b>NA</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
		1.9	N		0				Dry lt reddish brown, coarse sand, some salt crusting	
					1				Q <sub>tab</sub> = 1.6 / 120 mg/L	
					2					
		3.2	N	BH02 2.5-5.5 1730	3				Dry lt brown, coarse sand	
					4				Q <sub>tab</sub> = 1.6 / 120 mg/L	
					5					
		2.2	N		6				Dry gray black, highly weathered shale	
					7				Q <sub>tab</sub> = 1.2 < 120 mg/L	
					8					
		2.1	N		9				Dry black, weathered shale	
					10				Q <sub>tab</sub> = 1.0 < 120 mg/L	
					11				SAA	
		1.1	N		12				Q <sub>tab</sub> = 0.8 < 120 mg/L	
					13				SAA	
		0.8	N	BH02 12.5-15' 1730	14				SAA	
					15				Q <sub>tab</sub> = 0.6 < 120 mg/L	





## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH03</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/19/20</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>	Diameter: <b>2"</b>	Length: <b>6"</b>	Hole Diameter: <b>6"</b>
Screen Type: <b>Schedule 40 PVC</b>	Slot: <b>0.010"</b>	Diameter: <b>2"</b>	Length: <b>15'</b>
		Total Depth: <b>15'</b>	Depth to Liquid: <b>N/A</b>
			Depth to Water: <b>N/A</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
		1.0	N		0				Dry lt brown, coarse sand, few silt	
					1				Q <sub>tab</sub> = 0.8 < 120 mg/l	
					2					
		1.7	N	BH03	3				SAA	
				25-3	4				Q <sub>tab</sub> = 0.6 < 120 mg/l	
				1310	5				Highly weathered shale	
		0.8	N		6				Black weathered shale	
					7				Q <sub>tab</sub> = 0.4 < 120 mg/l	
		0.7	N		8				SAA	
					9				Q <sub>tab</sub> = 0.4 < 120	
					10					
		1.0	N		11				SAA	
					12				Q <sub>tab</sub> = 0.4 < 120	
		0.8	N	BH03	13				SAA	
				125-	14				Q <sub>tab</sub> = 0.2 < 120	
				15-16	15					



## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH04</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/19</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Drilling Method: <b>Hollow Stem Auger</b>		Sampling Method: <b>Continuous</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>		
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	
Casing Type: <b>Schedule 40 PVC</b>		Grout: <b>Bentonite-Cement Slurry</b>	
Screen Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>6'</b>
Slot: <b>0.010"</b>		Hole Diameter: <b>6"</b>	Depth to Liquid: <b>NA</b>
		Diameter: <b>2"</b>	Length: <b>15'</b>
		Total Depth: <b>15'</b>	Depth to Water: <b>NA</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
		1.3	N		0				Dry, lt brown, coarse sand, few silb	
					1				Q tab = 1.0 < 120 mg/L	
					2					
		1.6	N		3				Dry lt brown, sand, some silb	
					4				Q tab = 1.0 < 120 mg/L	
					5					
		2.5	N		6				SAA	
					7				Q tab = 1.0 < 120 mg/L	
		4.0	N	BH04 7.5-12 1340	8				SAA weathered shale @ 9'	
					9				Q tab = 1.0 < 120 mg/L	
					10					
		0.9	N		11				Black weathered shale	
					12				Q tab = 0.8 < 120 mg/L	
		0.9	N	BH04 12.5-13 1350	13				SAA	
					14				Q tab = 1.0 < 120 mg/L	
					15					



## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <i>BH05</i>	Project: Chaco 2308
Date: <i>10/19/20</i>	Project Number: 077920007
Logged By: E. Carroll	Drilled By: Enviro-Drill
Elevation: 5,688	Detector: PID
Gravel Pack: 10-20 Silica Sand	Drilling Method: Hollow Stem Auger
Casing Type: Schedule 40 PVC	Seal: Hydrated Bentonite Chips
Screen Type: Schedule 40 PVC	Grout: Bentonite-Cement Slurry
Slot: 0.010"	Diameter: 2"
Length: 2"	Hole Diameter: <i>6 1/4"</i>
Total Depth: <i>15'</i>	Depth to Liquid: <i>NA</i>
	Depth to Water: <i>NA</i>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
		4.0	N		0				Dry, it brown sand, some silt	
					1				$Q_{tab} = 0.4 < 120$	
					2					
		5.1	N	BH05	3				SAA	
				2.5-5	4				$Q_{tab} = 0.6 < 120$	
				1420	5					
		1.8	N		6				Dry, gray sand, some silt	
					7				$Q_{tab} = 0.0 < 120$	
		1.6	N		8				Highly weathered black shale	
					9				$Q_{tab} = 0.0 < 120$	
					10					
		1.8	N		11				SAA	
					12				$Q_{tab} = 0.0 < 120$	
		1.3	N	BH05	13				SAA	
				12.5-15	14				$Q_{tab} = 0.2 < 120$	
				1426	15					



## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <i>BH06</i>	Project: Chaco 2308
Date: <i>10/19/20</i>	Project Number: 077920007
Logged By: E. Carroll	Drilled By: Enviro-Drill
Elevation: 5,688	Detector: PID
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips
Casing Type: Schedule 40 PVC	Grout: Bentonite-Cement Slurry
Screen Type: Schedule 40 PVC	Diameter: 2"
Slot: 0.010"	Length: 2"
	Hole Diameter: 6"
	Depth to Liquid: NA
	Total Depth: 15'
	Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
	D	1.3	N		1				Dry, lt brown sand, some silt	
					2				Q <sub>tab</sub> = 0.6 < 120 m/k	
					3				SAA	
	D	33.4	N	BH06 2.5-5 1500	4				Q <sub>tab</sub> = 0.6 < 120	
					5					
	D	12.8	N		6				Dark brown sandy, some silt	
					7				Q <sub>tab</sub> = 0.4 < 120	
					8					
	D	6.2	N		9				SAA	
					10				Q <sub>tab</sub> = 0.4 < 120	
					11					
	D	3.1	N		12				Black weathered shale	
					13				Q <sub>tab</sub> = 0.4 < 120	
					14				SAA	
	D	1.7	N	BH06 12.5-15 1510	15				Q <sub>tab</sub> = 0.2 < 120	





Advancing Opportunity

## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH07</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/19/20</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>6'</b>
Screen Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>15'</b>
Slot: <b>0.010"</b>		Total Depth: <b>15'</b>	
		Depth to Liquid: <b>NA</b>	
		Depth to Water: <b>NA</b>	

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				Dry, lt brown, sand, some silt	
D	1.2	N			1					
					2				Q tab = 2.8 / 364 mg/L	
					3				moist Dry, brown sand, some silt	
m	5.1	N		BH07 2.5-5 09:40	4				Q tab = 4.2 / 748 mg/L	
					5					
					6				Black weathered shale	
D	3.6	N			7				Q tab = 2.4 / 268 mg/L	
					8				SAA	
D	3.2	N			9				Q tab = 0.8 < 120	
					10					
					11				NO Recovery	
					12					
					13				Black weathered shale	
D	2.8	N		BH07 12.5-15' 10:00	14				Q tab = 0.8 < 120	
					15					



## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number:	BH08	Project:	Chaco 2308
Date:	10/20	Project Number:	077920007
Logged By:	E. Carroll	Drilled By:	Enviro-Drill
Elevation:	5,688	Drilling Method:	Hollow Stem Auger
Detector:	PID	Sampling Method:	Continuous
Gravel Pack:	10-20 Silica Sand	Seal:	Hydrated Bentonite Chips
Casing Type:	Schedule 40 PVC	Grout:	Bentonite-Cement Slurry
Screen Type:	Schedule 40 PVC	Diameter:	2"
Slot:	0.010"	Length:	6"
		Hole Diameter:	6"
		Depth to Liquid:	NA
		Total Depth:	15'
		Depth to Water:	NA

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
				BH08	0				Dry it brown sand, some silb	
				0-2.5	1				Q <sub>tab</sub> = 0.6 < 120 mg/L	
				10:10	2					
					3				SAA	
					4				Q <sub>tab</sub> = 0.4 < 120	
					5					
					6				Black weathered shale	
					7				Q <sub>tab</sub> = 0.4 < 120	
					8					
					9				Black weathered shale	
					10				Q <sub>tab</sub> = 0.4 < 120	
					11				SAA	
					12				Q <sub>tab</sub> = 0.2 < 120	
					13				SAA	
				BH06	14				Q <sub>tab</sub> = 0.2 < 120	
				12-5-15	15					
				10:20						





## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH09</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/20</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>6"</b>
Screen Type: <b>Schedule 40 PVC</b>		Slot: <b>0.010"</b>	Diameter: <b>2"</b>
		Length: <b>15'</b>	Hole Diameter: <b>6"</b>
			Depth to Liquid: <b>NA</b>
			Depth to Water: <b>NA</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
	D	0.8	N	BH09 0-5'	1				Dry, 12 brown, coarse sand	
				1050	2				Some silt	
	↓	↓	↓		3				10w recovery 0-5'	
	↓	↓	↓		4				Q <sub>tab</sub> = 0.6 < 120	
					5					
	D	2.4	N		6				Dry Black weathered shale	
					7				10w recovery 5-10'	
	↓	↓	↓		8				Q <sub>tab</sub> = 0.7 < 120 mg/L	
					9					
					10					
	D	1.6	N	BH09 10-15'	11				SAA	
				11:00	12				10w recovery 10-15'	
	↓	↓	↓		13				Q <sub>tab</sub> = 0.2 < 120 mg/L	
					14					
					15					



## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH 10</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/20</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>6"</b>
Screen Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>15'</b>
Slot: <b>0.010"</b>		Depth to Liquid: <b>NA</b>	
		Depth to Water: <b>NA</b>	

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	8.2	N	BH10 0-2.5 11:30	0				Dry lt brown sand, some silt Q <sub>tab</sub> = 2.4 268 mg/L	
	M	7.8	N		3				Dry highly weathered shale Q <sub>tab</sub> = 2.2 274 mg/L	
	M	5.9	N		6				Dry weathered shale Q <sub>tab</sub> = 1.4 <120 mg/L	
	M	5.6	N		8				SAA Q <sub>tab</sub> = 0.8 <120 mg/L	
	D	4.2	N		11				SAA Q <sub>tab</sub> = 0.8 <120 mg/L	
	D	3.6	N	BH10 12.5-15 11:45	13				SAA Q <sub>tab</sub> = 0.4 <120 mg/L	



## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH11</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/20/20</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b> Length:	Hole Diameter: <b>6"</b> Depth to Liquid: <b>NA</b>
Screen Type: <b>Schedule 40 PVC</b> Slot: <b>0.010"</b>		Diameter: <b>2"</b> Length:	Total Depth: <b>15'</b> Depth to Water: <b>NA</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	114.3	N	BH11	0				moist, brown, sand, some silt, shale at 2'	
		<del>42.8</del>	@ Surface	0-2.5'	1				Q <sub>tob</sub> = 4.0 688 mg/L	
				12:00	2					
	M	42.8	N		3				Black, moist, highly weathered shale	
		<del>114.3</del>			4				Q <sub>tob</sub> = 1.0 < 120 mg/L	
					5					
	D	39.7	N		6				Black, weathered shale	
					7				Q <sub>tob</sub> = 0.6 < 120 mg/L	
					8				SAA	
	D	37.3	N		9				Q <sub>tob</sub> = 0.6 < 120 mg/L	
					10					
	D	19.5	N		11				SAA	
					12				Q <sub>tob</sub> = 0.4 < 120 mg/L	
					13				SAA	
	D	12.3	N	BH11	14				Q <sub>tob</sub> = 0.4 < 120 mg/L	
				12:15	15					



## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH 12</b>		Project: <b>Chaco 2308</b>	
Date: <b>10/20/20</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>6'</b>
Screen Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b>	Length: <b>15'9"</b>
Slot: <b>0.010"</b>		Hole Diameter: <b>6"</b>	
		Depth to Liquid: <b>NA</b>	
		Depth to Water: <b>NA</b>	

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				Hydro vac pit hole to 1'	
	M	315	N	BH12 0-2.5 1300	1				loose, lt brown coarse sand	
					2				Qtab = 1.6 120 mg/L	
	M	244	Y	BH12 2.5-5 1310	3				loose, lt brown sand, some clay	
					4				& silt gray HC stain	
					5				Qtab = 6.6 1,740 mg/L	
	D	35.2	N		6				Dry, weathered, black shale	
					7				Qtab = 3.0 412 mg/L	
	D	153	N	BH12 7.5-9 1320	8				SAA	
					9				Qtab = 2.0 184 mg/L	
					10				Refusal @ 9'	
					11					
					12					
					13					
					14					
					15					





## BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <b>BH13</b>		Project: <b>Chaco 2308</b>	
Date: <b>6/20</b>		Project Number: <b>077920007</b>	
Logged By: <b>E. Carroll</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation: <b>5,688</b>	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
Gravel Pack: <b>10-20 Silica Sand</b>		Seal: <b>Hydrated Bentonite Chips</b>	Grout: <b>Bentonite-Cement Slurry</b>
Casing Type: <b>Schedule 40 PVC</b>		Diameter: <b>2"</b> Length:	Hole Diameter: <b>2"</b> Depth to Liquid: <b>N/A</b>
Screen Type: <b>Schedule 40 PVC</b> Slot: <b>0.010"</b>		Diameter: <b>2"</b> Length:	Total Depth: <b>6'</b> Depth to Water: <b>N/A</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	2.3	N		0				Dry, lt brown sand, some silt	
					1				Q <sub>tab</sub> = 0.6 < 120 mg/L	
					2					
	D	1.8	N		3				SAA	
					4				Q <sub>tab</sub> = 0.6 < 120 mg/L	
					5					
					6					
					7					
					8				Refusal @ 6'	
					9					
					10					
					11					
					12					
					13					
					14					
					15					

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**District IV**  
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Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 11200

CONDITIONS

Operator: Whiptail Midstream LLC 15 West 6th Street Tulsa, OK 74119	OGRID: 373240
	Action Number: 11200
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	3/28/2022