Closure Report

Uncle Chess Battery
Lea County, New Mexico
Incident #nAPP228848285
L-21-20S-35E

Prepared For:

Matador Production Company
One Lincoln Center
Dallas, TX 75240

Prepared By:

BDS Enterprises
1705 E. Greene Street
Carlsbad, NM 88220

December 15, 2022

Mike Bratcher
NMOCD
506 W. Texas
Artesia, NM 88210

Subject: **Closure Report**
Uncle Chess Tank Battery
Lea County, NM
L-21-20S-35E
Incident Number: nAPP2228848285

Dear Mr. Bratcher,

Matador Production Company contracted BDS Enterprises to perform soil assessment and remediation services at the above referenced location. The incident description, soil sampling results, remedial actions and closure request is presented herein.

Site Information

The Uncle Chess CTB (Battery) is located approximately 46 miles east of Carlsbad New Mexico. The legal description for the site of release is Unit Letter L, Section 21, Township 20 South and Range 35 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.551788 and -103.461211. A Site Location Map is presented in Appendix II.

According to the soil survey provided by the United States Department of Agriculture National resources Conservation Services, the soil in this area is made up of Berino-Cacique loamy fine sands, with 0 to 3 percent slopes, and a depth to restrictive feature of more than 28 inches. The referred soil data is presented in Appendix III. Per the New Mexico Bureau of Geology and Mineral Resources, the local geology consists of, Holocene to Lower Pleistocene in age, and comprised of sandy eolian deposits derived from sedimentary rock over calcareous sandy alluvium derived from sedimentary rock. The soil characterization for this site contains a certain level of natural salinity (0.0 to 2.0 mmhos/cm). Drainage courses in this area are typically well drained.

Ground Water and Site Characterization

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 58 feet below ground surface (bgs). See Appendix III for the referenced groundwater depth. Further research of the Bureau of Land Management Karst data indicates that this site is not situated in a potential Karst area.

Incident Description

On October 15, 2022, during routine site inspections, Matador personnel noticed a spill footprint area of crude from an unknown cause. The impacted area measurement of 75'x25' indicated a volume of approximately 10 bbls (barrels) of crude. Approximately 6 bbls of crude were recovered.

Site Assessment

On October 19, 2022, R&R Environmental personnel mobilized to assess the impacted area. The impacted area was measured and mapped utilizing a Trimble 6000. All soil samples were properly packaged, preserved, and transported to a Hall Laboratory Representative via chain of custody for analysis of Total Chlorides (EPA Method 300.0), TPH (EPA Method 8015M/D and EPA Method 8015D), and BTEX (EPA Method 8021B). Sample Locations are shown on the attached figure (Appendix II) and the results of our assessment sampling event are presented on the following data table.

Table I

10/24/2022 Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Chlorides mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	GRO + DRO + MRO combined = 100 mg/kg			100 mg/kg	600 mg/kg
S-1	10/19/2022	0-1'	110	4.3	1500	6600	2500	10600	ND
	10/19/2022	2'	0.12	ND	5.4	260	110	375.4	ND
	10/19/2022	3'	ND	ND	ND	64	ND	64	ND
	10/19/2022	4'	0.11	ND	9.3	190	81	280.3	ND
S-2	10/19/2022	0-1'	ND	ND	ND	ND	ND	0	ND
	10/19/2022	2'	ND	ND	ND	ND	ND	0	ND
	10/19/2022	3'	ND	ND	ND	ND	ND	0	ND
	10/19/2022	4'	ND	ND	ND	ND	ND	0	ND
S-3	10/19/2022	0-1'	0.12	ND	ND	240	100	340	ND
	10/19/2022	2'	ND	ND	ND	15	ND	15	ND
	10/19/2022	3'	ND	ND	ND	16	ND	16	ND
	10/19/2022	4'	ND	ND	ND	ND	ND	0	ND

See Appendix V for the complete report of laboratory results.

Scope of Work

On October 26, 2022, based on the laboratory results from the initial site assessment and upon client authorization, BDS environmental personnel and equipment were mobilized to the site in order to commence remediation of the impacted area. A Hydro-vac was dispatched to expose electrical lines in the area requiring excavation. Field titration data was used to guide the clean-up efforts. All soil samples were properly collected and preserved for transport to Hall Laboratories and analyzed for Total Chlorides, BTEX, TPH, in order to confirm that NMOCD clean-up criteria had been achieved in accordance with Table 1 standards. The confirmation results from the laboratory are tabulated below. Confirmation sample locations are illustrated in Appendix II.

Table II

12/13/2022 Confirmation Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Chlorides mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	GRO + DRO + MRO combined = 100 mg/kg			100 mg/kg	600 mg/kg
S-1A	11/28/2022	5'	ND	ND	ND	38	ND	38	ND
	11/28/2022	7'	ND	ND	ND	ND	ND	-	ND
S-2A	11/28/2022	1'	ND	ND	ND	ND	ND	-	ND
S-3A	11/28/2022	1.5'	ND	ND	ND	ND	ND	-	ND
S-4A	11/29/2022	1.5'	ND	ND	ND	ND	ND	-	ND
S-5A	11/28/2022	1'	ND	ND	ND	ND	ND	-	ND
S-6A	11/28/2022	1'	ND	ND	ND	ND	ND	-	ND
S-7A	11/28/2022	1'	ND	ND	ND	2800	1600	4400	ND
	12/8/2022	1.5'	ND	ND	27.8	ND	ND	27.8	55.6
S-8A	11/29/2022	1.5'	ND	ND	ND	22	ND	22	ND
S-9A	11/28/2022	1'	ND	ND	ND	ND	ND	-	ND
S-10A	11/28/2022	1'	ND	ND	ND	ND	ND	-	ND
S-11A	11/29/2022	1.5'	ND	ND	ND	ND	ND	-	ND
S-12A	11/29/2022	1.5'	ND	ND	ND	ND	ND	-	ND
S-13A	11/28/2022	1'	ND	ND	ND	180	110	290	ND
S-13B	12/13/2022	2'	ND	ND	39	17.9	15.3	72.2	1.37
S-14A	11/28/2022	7'	ND	ND	ND	110	81	191	ND
S-14B	12/13/2022	7.5'	ND	ND	38.2	ND	15	53.2	ND
S-15A	11/28/2022	1.5'	ND	ND	ND	ND	ND	-	ND
S-16A	11/29/2022	2'	ND	ND	ND	21	ND	21	ND
S-17A	11/29/2022	2'	ND	ND	ND	ND	ND	-	ND
S-18A	11/28/2022	1.5'	ND	ND	ND	ND	ND	-	ND
S-19A	11/28/2022	1.5'	ND	ND	ND	65	58	123	ND
S-19B	12/13/2022	2'	ND	ND	25.5	17	ND	42.5	6.17
S-20A	11/28/2022	1.5'	ND	ND	ND	ND	ND	-	ND
SW-1	11/28/2022	2'	ND	ND	ND	ND	ND	-	ND
SW-2	11/28/2022	1.5'	ND	ND	ND	ND	ND	-	ND
SW-3	11/28/2022	1.5'	ND	ND	ND	61	ND	61	ND
SW-4	11/29/2022	1'	ND	ND	ND	ND	ND	-	ND
SW-5	11/28/2022	1.5'	ND	ND	ND	1200	500	1700	ND
SW-5A*	12/13/2022	1.5'	ND	ND	48.4	17.1	15.2	80.7	3.03
SW-6	11/28/2022	1'	ND	ND	ND	ND	ND	-	ND
SW-7	11/28/2022	1.5'	ND	ND	ND	ND	ND	-	ND
SW-8	11/28/2022	2'	ND	ND	ND	53	ND	53	ND
BG-1	11/28/2022	0'	ND	ND	ND	ND	ND	-	ND
BG-2	11/28/2022	0'	ND	ND	ND	ND	ND	-	ND
BG-3	11/28/2022	0'	ND	ND	ND	ND	ND	-	ND
BG-4	11/28/2022	0'	ND	ND	ND	ND	ND	-	ND

ND=Analyte Not Detected SW=Sidewall Sample *Additional Sidewall Advancement BG=Background

Appendix V for the complete report of laboratory results

Remedial Actions

- The spill footprint of the impacted pad area was excavated to a depth of 1 to 7 feet (source) bgs, and to the horizontal extent that all surface staining was removed. Laboratory analysis confirms that NMOCD remediation guidelines for soil characterization were achieved.

- Background samples were grabbed in accordance with NMOCD guidelines to confirm horizontal remediation efforts were achieved.

- The excavated pad area was backfilled with clean caliche, from JR 360 pit, restored to grade and compacted.

- All contaminated soil was transported to R360 Environmental Solutions, a NMOCD approved disposal facility.

- A Liner inspection was completed with Matador Representatives present and no impediments to the liner were observed. See Appendix I

Closure

Based on this site characterization, remedial actions completed, and analytical results we request that no further actions be required, and that closure with regard to the attached incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact us at 575-441-0980.

Respectfully submitted,

James W. Carnes
Environmental Scientist

Rebecca S. Pons
Project Manager

Attachments:

Appendix I	NMOCD
Appendix II	Site Maps
Appendix III	Groundwater Data, Soil Survey, & Wetlands Map
Appendix IV	Photographic Documentation
Appendix V	Laboratory Data
Appendix VI	Seed Tag

Appendix I

NMOCD

C-141

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	nAPP228848285
District RP	
Facility ID	L-21-20S-35E ON OE
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Production Company	OGRID: 228937
Contact Name: Arsenio T. Jones	Contact Telephone: 575-361-4333
Contact email: arsenio.jones@matadorresources.com	Incident # *(assigned by OCD):* nAPP2228848285
Contact mailing address: One Lincoln Centre Dallas, TX 75240	

Location of Release Source

Latitude 32.551788 Longitude -103.461211 (location of source)
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Uncle Ches Tank Battery	Site Type: Production Battery
Date Release Discovered: 10/15/22	API# *(if applicable)L-21-20S-35E*

Unit Letter	Section	Township	Range	County
L	21	20S	35E	Lea

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)

☒ Crude Oil	Volume Released (bbls)10	Volume Recovered (bbls)6
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Unknown-Environmental Company will assess,

State of New Mexico
Oil Conservation Division

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Application ID	

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? The Release was > 50bbl
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notification was provided to the NMOCD on 10/15/22 by Arsenio Jones of Matador (online).	

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.

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: Arsenio T. Jones Title: Regulatory, Environmental and Safety Specialist

Signature: _____ Date: 10/15/22

email: arsenio.jones@matadorresources.com Telephone: 575-361-4333

OCD Only

Received by: _____ Date: _____

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State of New Mexico
Oil Conservation Division

Incident ID	nAPP228848285
District RP	
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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?	58 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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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Oil Conservation Division

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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: Arsenio Jones Title: Regulatory Environmental and Safety Specialist

Signature: Date: 11/29/2022

email: arsenio.jones@matadorresources.com Telephone: 575-361-4333

OCD Only

Received by: Jocelyn Harimon Date: 1/11/2023

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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: Arsenio Jones Title: Regulatory Environmental and Safety Specialist

Signature: Date: 11/29/2022

email: arsenio.jones@matadorresources.com Telephone: 575-361-4333

OCD Only

Received by: Jocelyn Harimon Date: 1/11/2023

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State of New Mexico
Oil Conservation Division

Incident ID	nAPP228848285
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Facility ID	L-21_20S-35E ON OE
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Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Arsenio Jones Title: Regulatory Environmental and Safety Specialist

Signature: Date: 12/27/2022

email: arsenio.jones@matadorresources.com Telephone: 575-361-4333

OCD Only

Received by: Jocelyn Harimon Date: 1/11/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 02/01/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

James Carnes

From: James Carnes
Sent: Monday, November 21, 2022 3:40 PM
To: enviro.ocd@state.nm.us
Subject: Fwd: Incident IDNAPP2228848285

Get Outlook for iOS

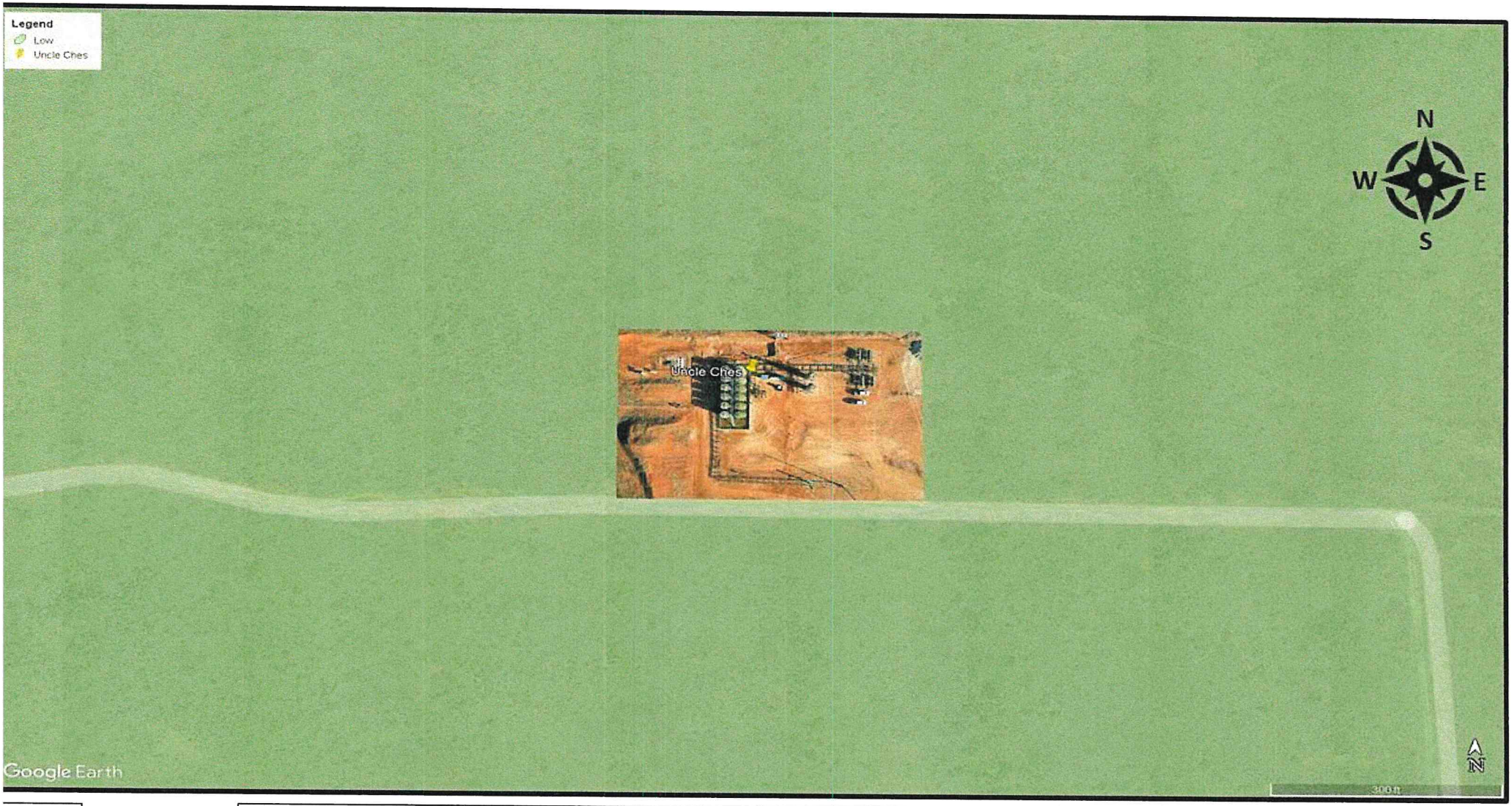
From: Rebecca Green <rebecca.green59@yahoo.com>
Sent: Monday, November 21, 2022 3:36 PM
To: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Cc: Arseno Jones <arsenio.jones@matadorresources.com>
Subject: Incident IDNAPP2228848285

To whom it may concern,
R & R environmental will be on location Tuesday, November 22 at 3:30 PM for the confirmation sampling event at the Uncle Chess tank battery. Please feel free to call me with any questions.
Respectfully,

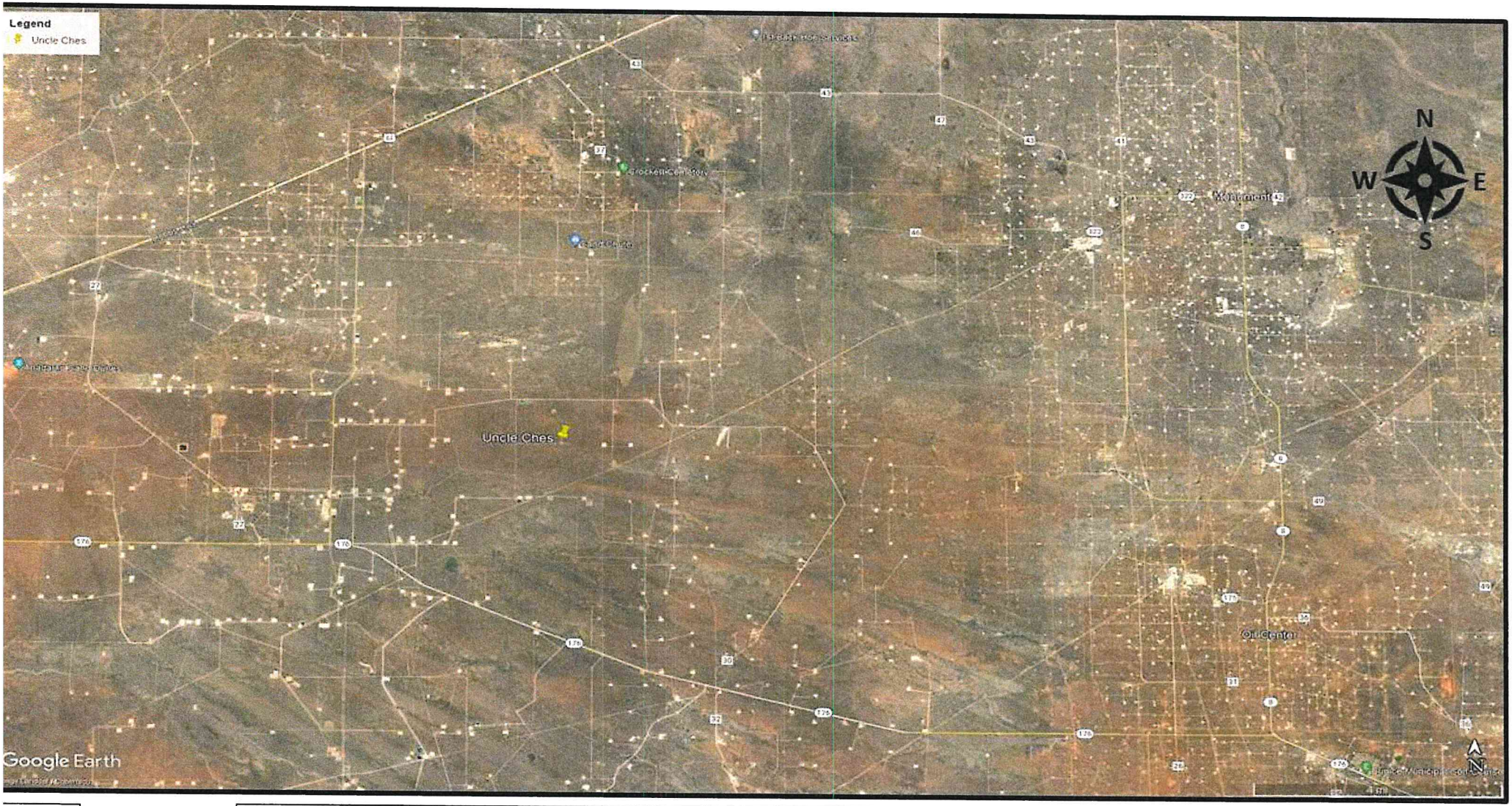
Sent from my iPhone

Appendix II

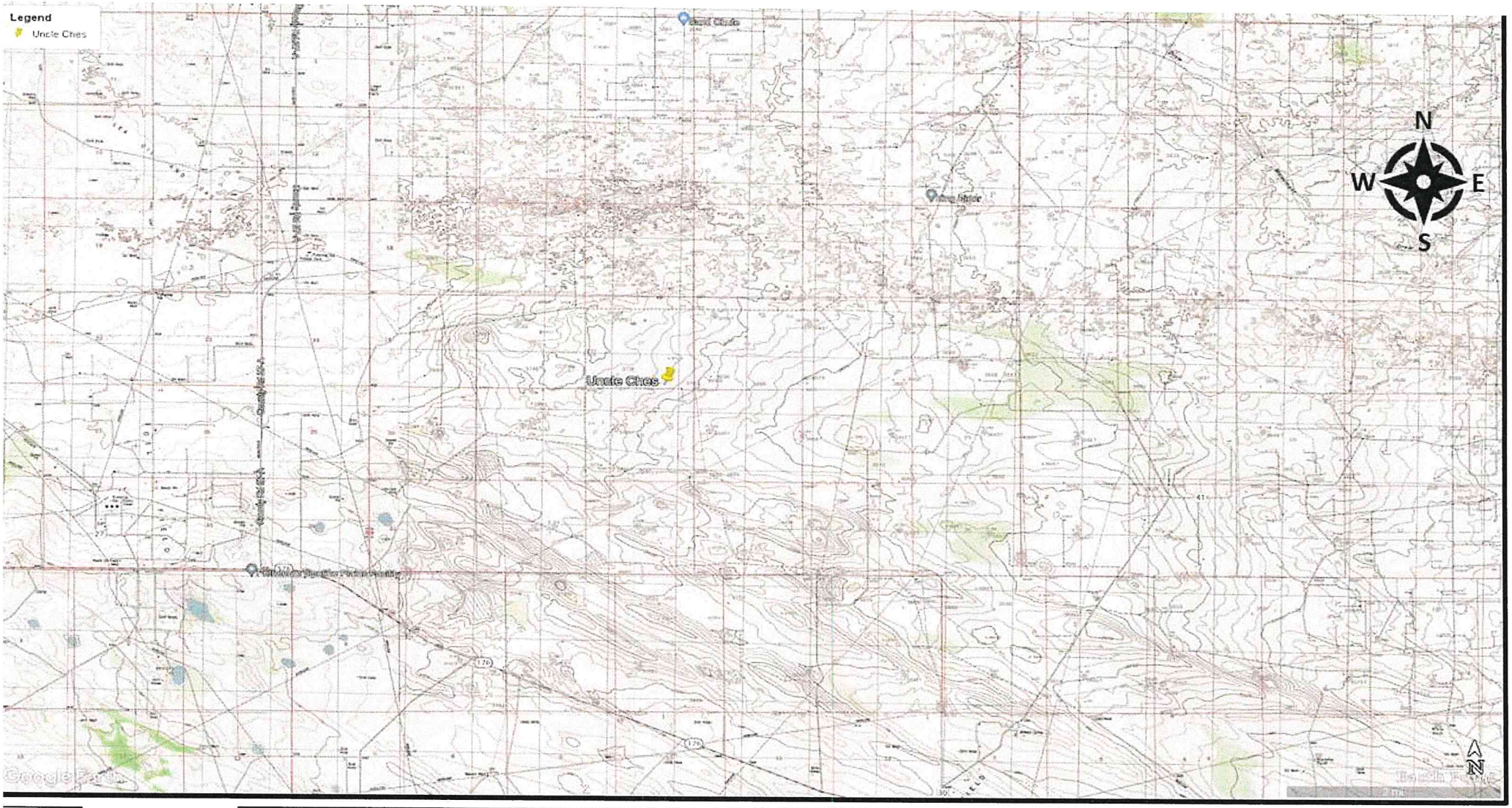
Site Maps



	Matador Resources Uncle Ches TB	Lea County, NM Incident #nAPP2228848285	Karst Map



	Matador Resources Uncle Ches TB	Lea County, NM Incident #nAPP2228848285	Location Map



Matador Resources
Uncle Ches TB

Lea County, NM
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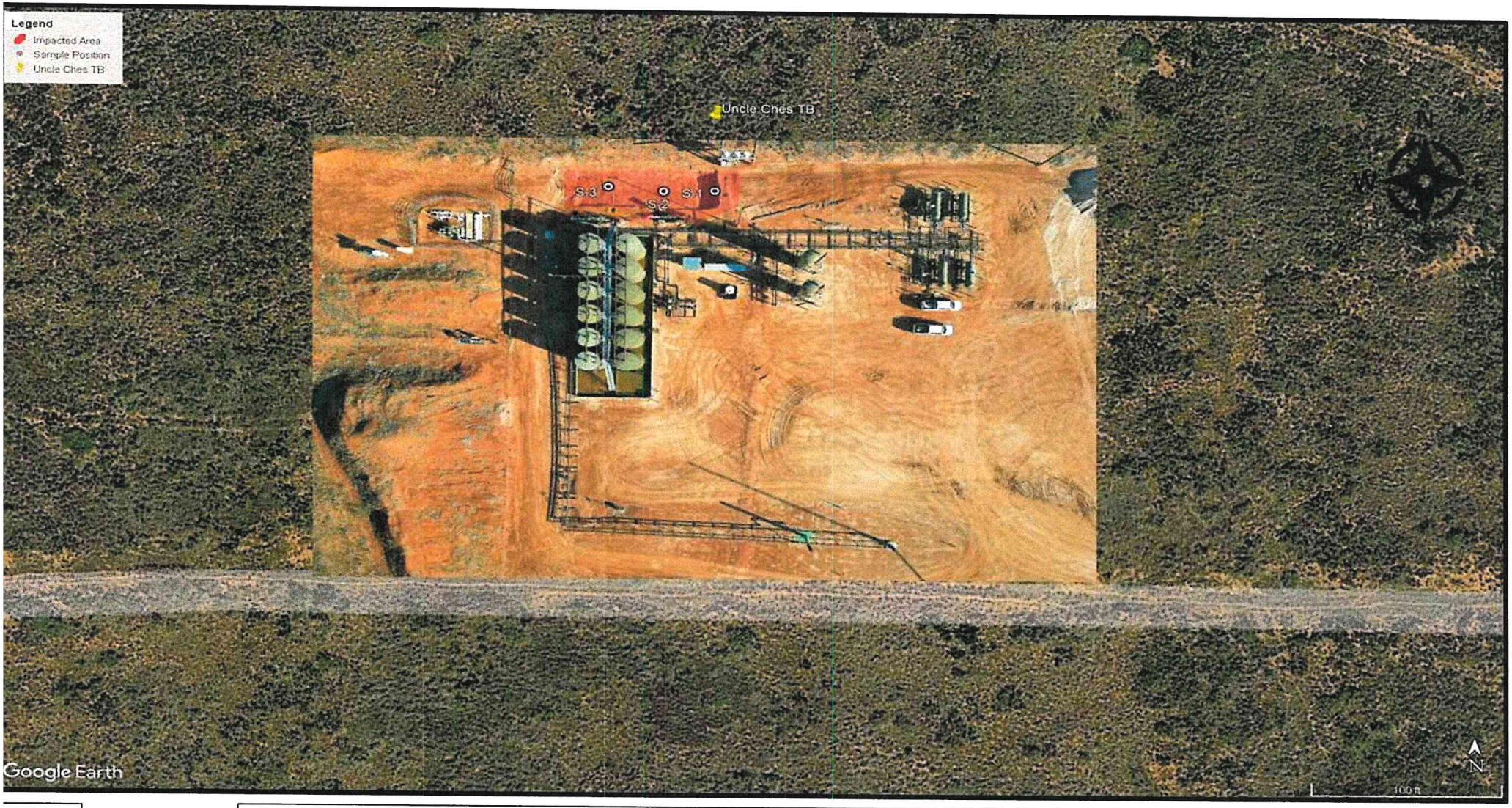
Topography Map



Matador Resources
Uncle Ches TB

Lea County, NM
Incident#nAPP2228848285

Site Assessment Map

Matador Resources
Uncle Ches TB

Lea County, NM
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Confirmation Sample Map

Appendix III

Groundwater Data, Soil Survey, & Wetlands Map

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 15099 POD1		L	LE	3	1	4	26	20S	35E	647650	3601626	3093	110	58	52

Average Depth to Water: **58 feet**
Minimum Depth: **58 feet**
Maximum Depth: **58 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 644738.3 **Northing (Y):** 3602671.24 **Radius:** 5000

10/18/22 3:40 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	L 15099 POD1	3	1	4	26	20S	35E	647650	3601626

Driller License: 1800 **Driller Company:** TALON/LPE

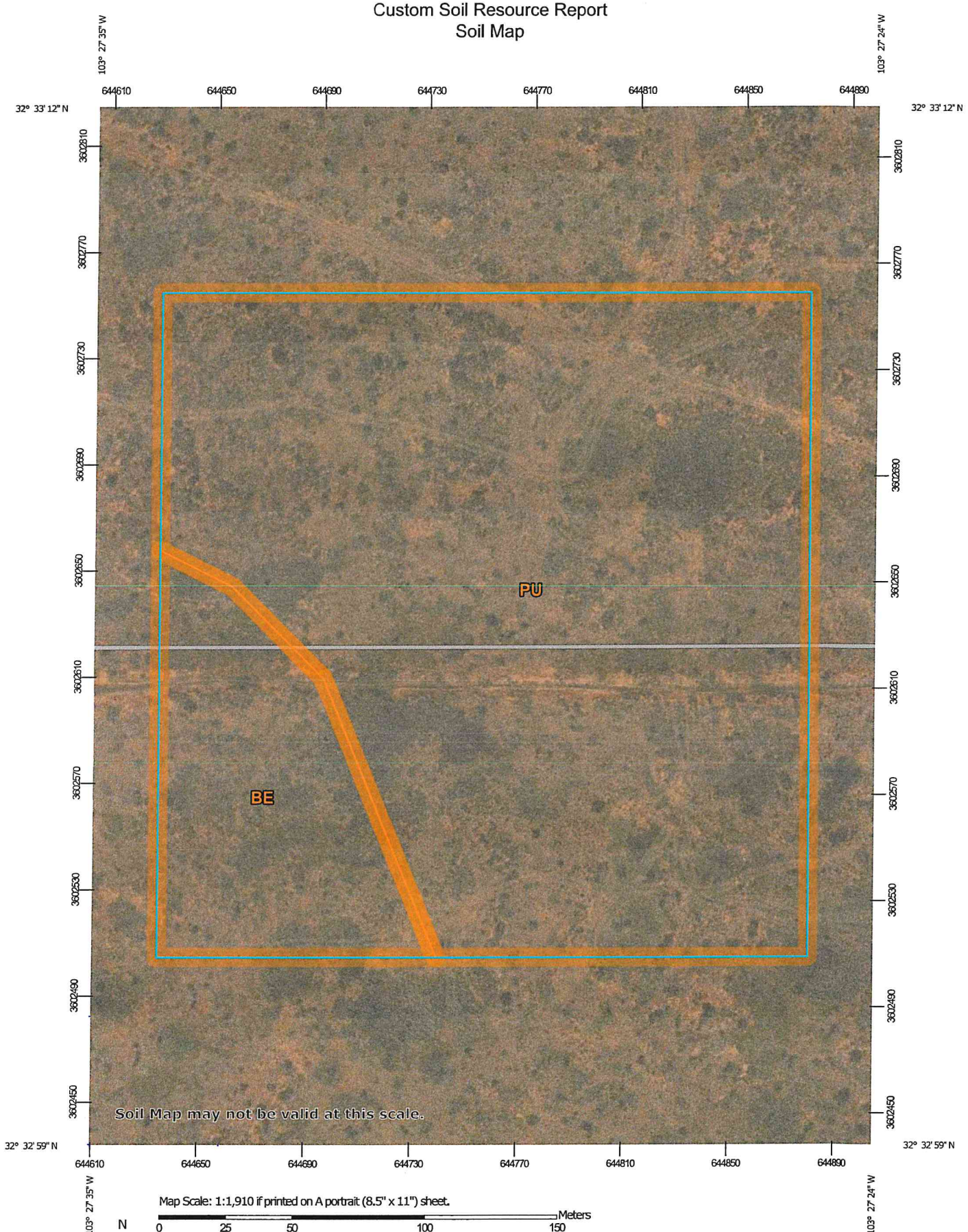
Driller Name: 02/22/21

Drill Start Date:	02/22/2021	**Drill Finish Date:**		**Plug Date:**	02/22/2021
Log File Date:	03/11/2021	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	0 GPM
Casing Size:	2.00	**Depth Well:**	110 feet	**Depth Water:**	58 feet

Water Bearing Stratifications:	Top	Bottom	Description
	48	60	Sandstone/Gravel/Conglomerate
	60	62	Sandstone/Gravel/Conglomerate
	62	100	Sandstone/Gravel/Conglomerate
	100	110	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	100	110

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,910 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 19, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Lea County, New Mexico

BE—Berino-Cacique loamy fine sands association

Map Unit Setting

National map unit symbol: dmpd
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 50 percent
Cacique and similar soils: 40 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock over calcareous sandy alluvium derived from sedimentary rock

Typical profile

A - 0 to 6 inches: loamy fine sand
Btk - 6 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Cacique

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 12 inches: loamy fine sand
Bt - 12 to 28 inches: sandy clay loam
Bkm - 28 to 38 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R070BD004NM - Sandy
Hydric soil rating: No

Minor Components

Maljamar

Percent of map unit: 6 percent
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Palomas

Percent of map unit: 4 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

PU—Pyote and Maljamar fine sands

Map Unit Setting

National map unit symbol: dmqq
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Pyote and similar soils: 46 percent
Maljamar and similar soils: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 30 inches: fine sand
Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A

Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Maljamar

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand
Bt - 24 to 50 inches: sandy clay loam
Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

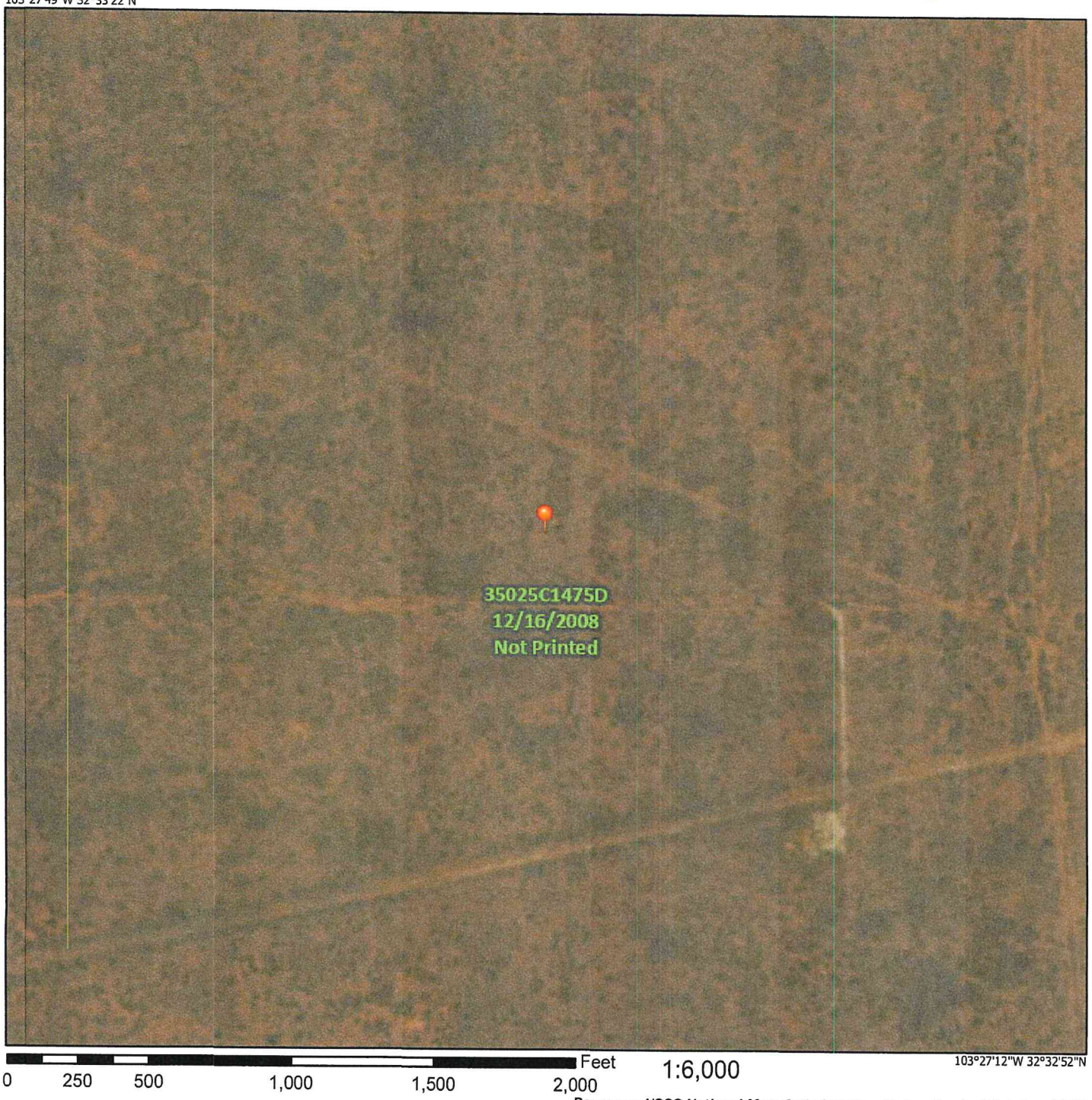
Minor Components

Kermit

Percent of map unit: 10 percent
Ecological site: R070BC022NM - Sandhills
Hydric soil rating: No

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

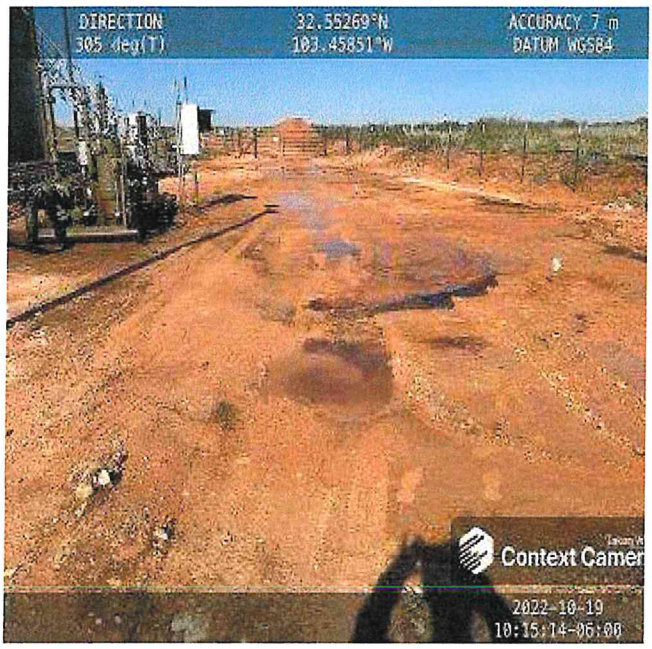
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/18/2022 at 5:40 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

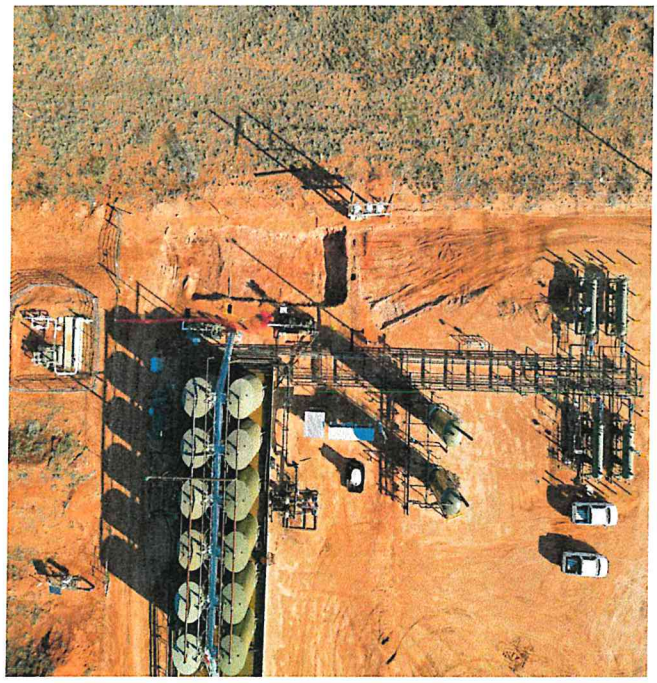
Appendix IV

Photographic Documentation



Impacted area, view west.

Impacted area, view east.



Aerial of excavation.

Aerial of Excatvation.

Backfill to grade and compacted pad, view west.

Backfill to grade and compacted pad, view east.

Appendix V

Laboratory Data

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 31, 2022

Renne Madrid
R & R Environmental
1505 W. Bullock Ave
Artesia, NM 88210
TEL: (575) 616-9340
FAX:

RE: Uncle Ches TB OrderNo.: 2210A35

Dear Renne Madrid:

Hall Environmental Analysis Laboratory received 12 sample(s) on 10/20/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2210A35**
Date Reported: **10/31/2022**

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2210A35-001 **Matrix:** SOIL

Client Sample ID: S-1 0-1'
Collection Date: 10/19/2022 9:10:00 AM
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/25/2022 1:47:34 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	6600	140		mg/Kg	10	10/25/2022 8:14:17 PM	71020
Motor Oil Range Organics (MRO)	2500	460		mg/Kg	10	10/25/2022 8:14:17 PM	71020
Surr: DNOP	0	21-129	S	%Rec	10	10/25/2022 8:14:17 PM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	1500	25		mg/Kg	5	10/25/2022 8:09:35 PM	71003
Surr: BFB	1420	37.7-212	S	%Rec	5	10/25/2022 8:09:35 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	4.3	0.12		mg/Kg	5	10/25/2022 8:09:35 PM	71003
Toluene	100	2.5		mg/Kg	50	10/26/2022 8:32:47 PM	71003
Ethylbenzene	91	2.5		mg/Kg	50	10/26/2022 8:32:47 PM	71003
Xylenes, Total	110	5.0		mg/Kg	50	10/26/2022 8:32:47 PM	71003
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	50	10/26/2022 8:32:47 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2210A35-002 **Matrix:** SOIL

Client Sample ID: S-1 2'
Collection Date: 10/19/2022 9:15:00 AM
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	59		mg/Kg	20	10/25/2022 1:59:58 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	260	15		mg/Kg	1	10/27/2022 2:45:57 AM	71020
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	10/27/2022 2:45:57 AM	71020
Surr: DNOP	105	21-129		%Rec	1	10/27/2022 2:45:57 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.4	4.9		mg/Kg	1	10/26/2022 8:56:19 PM	71003
Surr: BFB	133	37.7-212		%Rec	1	10/26/2022 8:56:19 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/26/2022 8:56:19 PM	71003
Toluene	ND	0.049		mg/Kg	1	10/26/2022 8:56:19 PM	71003
Ethylbenzene	0.060	0.049		mg/Kg	1	10/26/2022 8:56:19 PM	71003
Xylenes, Total	0.12	0.098		mg/Kg	1	10/26/2022 8:56:19 PM	71003
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	10/26/2022 8:56:19 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2210A35**
Date Reported: **10/31/2022**

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2210A35-003 **Matrix:** SOIL

Client Sample ID: S-1 3'
Collection Date: 10/19/2022 9:20:00 AM
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/25/2022 2:12:22 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	64	14		mg/Kg	1	10/26/2022 7:51:41 AM	71020
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/26/2022 7:51:41 AM	71020
Surr: DNOP	91.3	21-129		%Rec	1	10/26/2022 7:51:41 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/25/2022 8:56:29 PM	71003
Surr: BFB	113	37.7-212		%Rec	1	10/25/2022 8:56:29 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/25/2022 8:56:29 PM	71003
Toluene	ND	0.049		mg/Kg	1	10/25/2022 8:56:29 PM	71003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2022 8:56:29 PM	71003
Xylenes, Total	ND	0.098		mg/Kg	1	10/25/2022 8:56:29 PM	71003
Surr: 4-Bromofluorobenzene	99.8	70-130		%Rec	1	10/25/2022 8:56:29 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: S-1 4'
Project: Uncle Ches TB
Collection Date: 10/19/2022 9:25:00 AM
Lab ID: 2210A35-004 **Matrix:** SOIL
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/25/2022 2:24:46 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	190	13		mg/Kg	1	10/27/2022 3:09:48 AM	71020
Motor Oil Range Organics (MRO)	81	45		mg/Kg	1	10/27/2022 3:09:48 AM	71020
Surr: DNOP	104	21-129		%Rec	1	10/27/2022 3:09:48 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	9.3	4.9		mg/Kg	1	10/25/2022 9:19:58 PM	71003
Surr: BFB	158	37.7-212		%Rec	1	10/25/2022 9:19:58 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/25/2022 9:19:58 PM	71003
Toluene	ND	0.049		mg/Kg	1	10/25/2022 9:19:58 PM	71003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2022 9:19:58 PM	71003
Xylenes, Total	0.11	0.098		mg/Kg	1	10/25/2022 9:19:58 PM	71003
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	10/25/2022 9:19:58 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: S-2 0-1'
Project: Uncle Ches TB
Collection Date: 10/19/2022 9:35:00 AM
Lab ID: 2210A35-005 **Matrix:** SOIL
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/25/2022 2:37:10 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	10/26/2022 8:05:15 AM	71020
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	10/26/2022 8:05:15 AM	71020
Surr: DNOP	89.2	21-129		%Rec	1	10/26/2022 8:05:15 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/25/2022 9:43:28 PM	71003
Surr: BFB	96.5	37.7-212		%Rec	1	10/25/2022 9:43:28 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/25/2022 9:43:28 PM	71003
Toluene	ND	0.049		mg/Kg	1	10/25/2022 9:43:28 PM	71003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2022 9:43:28 PM	71003
Xylenes, Total	ND	0.098		mg/Kg	1	10/25/2022 9:43:28 PM	71003
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	1	10/25/2022 9:43:28 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: S-2 2'
Project: Uncle Ches TB
Collection Date: 10/19/2022 9:40:00 AM
Lab ID: 2210A35-006 **Matrix:** SOIL
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	61		mg/Kg	20	10/25/2022 2:49:34 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	10/26/2022 8:18:36 AM	71020
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/26/2022 8:18:36 AM	71020
Surr: DNOP	89.4	21-129		%Rec	1	10/26/2022 8:18:36 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2022 10:06:51 PM	71003
Surr: BFB	94.8	37.7-212		%Rec	1	10/25/2022 10:06:51 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/25/2022 10:06:51 PM	71003
Toluene	ND	0.050		mg/Kg	1	10/25/2022 10:06:51 PM	71003
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2022 10:06:51 PM	71003
Xylenes, Total	ND	0.099		mg/Kg	1	10/25/2022 10:06:51 PM	71003
Surr: 4-Bromofluorobenzene	99.0	70-130		%Rec	1	10/25/2022 10:06:51 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: S-2 3'
Project: Uncle Ches TB
Collection Date: 10/19/2022 9:45:00 AM
Lab ID: 2210A35-007 **Matrix:** SOIL
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/25/2022 3:26:47 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	10/26/2022 10:54:29 AM	71020
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	10/26/2022 10:54:29 AM	71020
Surr: DNOP	91.9	21-129		%Rec	1	10/26/2022 10:54:29 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/25/2022 10:30:12 PM	71003
Surr: BFB	97.4	37.7-212		%Rec	1	10/25/2022 10:30:12 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/25/2022 10:30:12 PM	71003
Toluene	ND	0.049		mg/Kg	1	10/25/2022 10:30:12 PM	71003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2022 10:30:12 PM	71003
Xylenes, Total	ND	0.098		mg/Kg	1	10/25/2022 10:30:12 PM	71003
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	10/25/2022 10:30:12 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2210A35-008 **Matrix:** SOIL

Client Sample ID: S-2 4'
Collection Date: 10/19/2022 9:50:00 AM
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/25/2022 3:39:11 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	10/26/2022 11:08:21 AM	71020
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/26/2022 11:08:21 AM	71020
Surr: DNOP	96.8	21-129		%Rec	1	10/26/2022 11:08:21 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/25/2022 10:53:49 PM	71003
Surr: BFB	98.4	37.7-212		%Rec	1	10/25/2022 10:53:49 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/25/2022 10:53:49 PM	71003
Toluene	ND	0.049		mg/Kg	1	10/25/2022 10:53:49 PM	71003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2022 10:53:49 PM	71003
Xylenes, Total	ND	0.099		mg/Kg	1	10/25/2022 10:53:49 PM	71003
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	10/25/2022 10:53:49 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2210A35-009 **Matrix:** SOIL

Client Sample ID: S-3 0-1'
Collection Date: 10/19/2022 10:00:00 AM
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	10/25/2022 3:51:36 PM	71047
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	240	14		mg/Kg	1	10/27/2022 3:33:37 AM	71020
Motor Oil Range Organics (MRO)	100	47		mg/Kg	1	10/27/2022 3:33:37 AM	71020
Surr: DNOP	105	21-129		%Rec	1	10/27/2022 3:33:37 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/25/2022 11:17:22 PM	71003
Surr: BFB	128	37.7-212		%Rec	1	10/25/2022 11:17:22 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/25/2022 11:17:22 PM	71003
Toluene	ND	0.048		mg/Kg	1	10/25/2022 11:17:22 PM	71003
Ethylbenzene	0.059	0.048		mg/Kg	1	10/25/2022 11:17:22 PM	71003
Xylenes, Total	0.12	0.097		mg/Kg	1	10/25/2022 11:17:22 PM	71003
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	10/25/2022 11:17:22 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: S-3 2'
Project: Uncle Ches TB
Collection Date: 10/19/2022 10:05:00 AM
Lab ID: 2210A35-010 **Matrix:** SOIL
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	10/26/2022 10:12:32 AM	71072
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	15	15		mg/Kg	1	10/26/2022 11:22:19 AM	71020
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/26/2022 11:22:19 AM	71020
Surr: DNOP	101	21-129		%Rec	1	10/26/2022 11:22:19 AM	71020
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/25/2022 11:40:41 PM	71003
Surr: BFB	101	37.7-212		%Rec	1	10/25/2022 11:40:41 PM	71003
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/25/2022 11:40:41 PM	71003
Toluene	ND	0.049		mg/Kg	1	10/25/2022 11:40:41 PM	71003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2022 11:40:41 PM	71003
Xylenes, Total	ND	0.098		mg/Kg	1	10/25/2022 11:40:41 PM	71003
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	10/25/2022 11:40:41 PM	71003

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2210A35**
Date Reported: **10/31/2022**

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2210A35-011 **Matrix:** SOIL

Client Sample ID: S-3 3'
Collection Date: 10/19/2022 10:10:00 AM
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	10/26/2022 10:24:56 AM	71072
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	16	14		mg/Kg	1	10/26/2022 2:58:34 AM	71043
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/26/2022 2:58:34 AM	71043
Surr: DNOP	92.3	21-129		%Rec	1	10/26/2022 2:58:34 AM	71043
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2022 12:06:16 AM	71004
Surr: BFB	92.7	37.7-212		%Rec	1	10/25/2022 12:06:16 AM	71004
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/25/2022 12:06:16 AM	71004
Toluene	ND	0.050		mg/Kg	1	10/25/2022 12:06:16 AM	71004
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2022 12:06:16 AM	71004
Xylenes, Total	ND	0.10		mg/Kg	1	10/25/2022 12:06:16 AM	71004
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	10/25/2022 12:06:16 AM	71004

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2210A35**
Date Reported: **10/31/2022**

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2210A35-012 **Matrix:** SOIL

Client Sample ID: S-3 4'
Collection Date: 10/19/2022 10:15:00 AM
Received Date: 10/20/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	10/26/2022 10:37:21 AM	71072
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	10/26/2022 3:11:56 AM	71043
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/26/2022 3:11:56 AM	71043
Surr: DNOP	91.1	21-129		%Rec	1	10/26/2022 3:11:56 AM	71043
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2022 1:16:56 AM	71004
Surr: BFB	96.0	37.7-212		%Rec	1	10/25/2022 1:16:56 AM	71004
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/25/2022 1:16:56 AM	71004
Toluene	ND	0.050		mg/Kg	1	10/25/2022 1:16:56 AM	71004
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2022 1:16:56 AM	71004
Xylenes, Total	ND	0.099		mg/Kg	1	10/25/2022 1:16:56 AM	71004
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	10/25/2022 1:16:56 AM	71004

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210A35**

31-Oct-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **MB-71047**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **71047**	RunNo: **92054**							
Prep Date: **10/25/2022**	Analysis Date: **10/25/2022**	SeqNo: **3304316**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-71047**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **71047**	RunNo: **92054**							
Prep Date: **10/25/2022**	Analysis Date: **10/25/2022**	SeqNo: **3304317**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.4	90	110			

Sample ID: **MB-71072**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **71072**	RunNo: **92082**							
Prep Date: **10/26/2022**	Analysis Date: **10/26/2022**	SeqNo: **3306560**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-71072**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **71072**	RunNo: **92082**							
Prep Date: **10/26/2022**	Analysis Date: **10/26/2022**	SeqNo: **3306561**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210A35**

31-Oct-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **MB-71043**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **71043**	RunNo: **92056**
Prep Date: **10/24/2022**	Analysis Date: **10/25/2022**	SeqNo: **3303572** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.9		10.00		79.0	21	129			

Sample ID: **LCS-71043**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **71043**	RunNo: **92056**
Prep Date: **10/24/2022**	Analysis Date: **10/25/2022**	SeqNo: **3303573** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	95.5	64.4	127			
Surr: DNOP	3.5		5.000		70.8	21	129			

Sample ID: **MB-71054**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **71054**	RunNo: **92087**
Prep Date: **10/25/2022**	Analysis Date: **10/26/2022**	SeqNo: **3305152** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		111	21	129			

Sample ID: **LCS-71054**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **71054**	RunNo: **92087**
Prep Date: **10/25/2022**	Analysis Date: **10/26/2022**	SeqNo: **3305153** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		103	21	129			

Sample ID: **MB-71020**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **71020**	RunNo: **92056**
Prep Date: **10/24/2022**	Analysis Date: **10/26/2022**	SeqNo: **3307150** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		88.3	21	129			

Sample ID: **LCS-71020**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **71020**	RunNo: **92056**
Prep Date: **10/24/2022**	Analysis Date: **10/26/2022**	SeqNo: **3307151** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210A35**

31-Oct-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **LCS-71020**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **71020**	RunNo: **92056**
Prep Date: **10/24/2022**	Analysis Date: **10/26/2022**	SeqNo: **3307151** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	15	50.00	0	103	64.4	127			
Surr: DNOP	4.3		5.000		85.8	21	129			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210A35**

31-Oct-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **mb-71003**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **71003**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302540** 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	1000		1000		100	37.7	212			

Sample ID: **lcs-71003**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **71003**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302541** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	72.3	137			
Surr: BFB	2000		1000		204	37.7	212			

Sample ID: **mb-71004**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302554** 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	970		1000		97.4	37.7	212			

Sample ID: **lcs-71004**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302555** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	72.3	137			
Surr: BFB	2100		1000		211	37.7	212			

Sample ID: **2210a35-011ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-3 3'**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/25/2022**	SeqNo: **3302557** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.78	0	100	70	130			
Surr: BFB	2000		991.1		199	37.7	212			

Sample ID: **2210a35-011amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-3 3'**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/25/2022**	SeqNo: **3302558** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210A35**

31-Oct-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **2210a35-011amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **S-3 3'** Batch ID: **71004** RunNo: **92027**

Prep Date: **10/23/2022** Analysis Date: **10/25/2022** SeqNo: **3302558** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.70	0	90.7	70	130	10.2	20	
Surr: BFB	1800		988.1		182	37.7	212	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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210A35**

31-Oct-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **mb-71003**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **71003**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302586** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	70	130			

Sample ID: **LCS-71003**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **71003**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302587** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	70	130			

Sample ID: **mb-71004**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302600** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

Sample ID: **LCS-71004**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/24/2022**	SeqNo: **3302601** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210A35**

31-Oct-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **2210a35-012ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-3 4'**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/25/2022**	SeqNo: **3302604** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.024	0.9775	0	96.0	68.8	120			
Toluene	0.96	0.049	0.9775	0	98.4	73.6	124			
Ethylbenzene	0.97	0.049	0.9775	0	99.7	72.7	129			
Xylenes, Total	3.0	0.098	2.933	0.01877	100	75.7	126			
Surr: 4-Bromofluorobenzene	0.99		0.9775		101	70	130			

Sample ID: **2210a35-012amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-3 4'**	Batch ID: **71004**	RunNo: **92027**
Prep Date: **10/23/2022**	Analysis Date: **10/25/2022**	SeqNo: **3302605** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.025	0.9980	0	82.1	68.8	120	13.6	20	
Toluene	0.83	0.050	0.9980	0	83.0	73.6	124	14.9	20	
Ethylbenzene	0.82	0.050	0.9980	0	82.4	72.7	129	17.0	20	
Xylenes, Total	2.5	0.10	2.994	0.01877	81.8	75.7	126	17.9	20	
Surr: 4-Bromofluorobenzene	1.0		0.9980		102	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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: R & R Environmental | Work Order Number: 2210A35 | RcptNo: 1

Received By: Juan Rojas 10/20/2022 7:55:00 AM

Completed By: Tracy Casarrubias 10/20/2022 8:44:38 AM

Reviewed By: SGC 10/20/22

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° C to 6.0°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: KPG 10.20.22

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	2.4	Good	Yes			

Chain-of-Custody Record

Client: R & R Environmental

Mailing Address: 1505 W. Bullock Ave Artesia NM, 88210

Phone #: 575-616-9340

email or Fax#: rmadrid6173@gmail.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☒ Rush 5 Day

Project Name: Uncle Ches TB

Project #:

Project Manager: (405) 627 4694 James Carnes / Ronnie Madrid

Sampler: James Carnes

On Ice: ☐ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.3-0.1=2.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2210A35	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_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10-19-22	9:10	Soil	S-1 0-1'	Glass Jar/1	Ice/cool	001	X	X					X			
	9:15		S-1 2'			002										
	9:20		S-1 3'			003										
	9:25		S-1 4'			004										
	9:35		S-2 0-1'			005										
	9:40		S-2 2'			006										
	9:45		S-2 3'			007										
	9:50		S-2 4'			008										
	10:00		S-3 0-1'			009										
	10:05		S-3 2'			010										
	10:10		S-3 3'			011										
	10:15		S-3 4'			012										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
10-19-22	11:20				10/19/22	1130
10/19/22	1900			courier	10/20/22	7:15

Remarks:

Email results: james.carnes@aol.com

- New Client TMC 10/20/22

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

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

December 08, 2022

James Carnes
R & R Environmental
1505 W. Bullock Ave
Artesia, NM 88210
TEL: (575) 616-9340
FAX:

RE: Uncle Chess OrderNo.: 2211E59

Dear James Carnes:

Hall Environmental Analysis Laboratory received 15 sample(s) on 11/30/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2211E59**
Date Reported: **12/8/2022**

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-001 **Matrix:** SOIL

Client Sample ID: S1A 5'
Collection Date: 11/28/2022 9:00:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 1:43:40 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	38	14		mg/Kg	1	12/2/2022 10:17:48 PM	71805
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/2/2022 10:17:48 PM	71805
Surr: DNOP	98.5	21-129		%Rec	1	12/2/2022 10:17:48 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2022 9:49:00 AM	71799
Surr: BFB	95.1	37.7-212		%Rec	1	12/3/2022 9:49:00 AM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 9:49:00 AM	71799
Toluene	ND	0.050		mg/Kg	1	12/3/2022 9:49:00 AM	71799
Ethylbenzene	ND	0.050		mg/Kg	1	12/3/2022 9:49:00 AM	71799
Xylenes, Total	ND	0.099		mg/Kg	1	12/3/2022 9:49:00 AM	71799
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	12/3/2022 9:49:00 AM	71799

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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2211E59**
Date Reported: **12/8/2022**

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-002 **Matrix:** SOIL

Client Sample ID: S1A 7'
Collection Date: 11/28/2022 9:10:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 1:56:04 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	12/2/2022 10:31:38 PM	71805
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/2/2022 10:31:38 PM	71805
Surr: DNOP	110	21-129		%Rec	1	12/2/2022 10:31:38 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/3/2022 11:07:00 AM	71799
Surr: BFB	93.1	37.7-212		%Rec	1	12/3/2022 11:07:00 AM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 11:07:00 AM	71799
Toluene	ND	0.049		mg/Kg	1	12/3/2022 11:07:00 AM	71799
Ethylbenzene	ND	0.049		mg/Kg	1	12/3/2022 11:07:00 AM	71799
Xylenes, Total	ND	0.098		mg/Kg	1	12/3/2022 11:07:00 AM	71799
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	12/3/2022 11:07:00 AM	71799

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-003 **Matrix:** SOIL

Client Sample ID: S2A 1'
Collection Date: 11/28/2022 9:20:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:08:29 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/2/2022 10:45:17 PM	71805
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/2/2022 10:45:17 PM	71805
Surr: DNOP	96.8	21-129		%Rec	1	12/2/2022 10:45:17 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 11:27:00 AM	71799
Surr: BFB	99.0	37.7-212		%Rec	1	12/3/2022 11:27:00 AM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 11:27:00 AM	71799
Toluene	ND	0.048		mg/Kg	1	12/3/2022 11:27:00 AM	71799
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 11:27:00 AM	71799
Xylenes, Total	ND	0.097		mg/Kg	1	12/3/2022 11:27:00 AM	71799
Surr: 4-Bromofluorobenzene	98.3	70-130		%Rec	1	12/3/2022 11:27:00 AM	71799

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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: S3A 1.5'
Project: Uncle Chess
Collection Date: 11/28/2022 9:30:00 AM
Lab ID: 2211E59-004 **Matrix:** SOIL
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:20:53 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/2/2022 10:58:51 PM	71805
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/2/2022 10:58:51 PM	71805
Surr: DNOP	100	21-129		%Rec	1	12/2/2022 10:58:51 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 11:47:00 AM	71799
Surr: BFB	93.3	37.7-212		%Rec	1	12/3/2022 11:47:00 AM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.023		mg/Kg	1	12/3/2022 11:47:00 AM	71799
Toluene	ND	0.047		mg/Kg	1	12/3/2022 11:47:00 AM	71799
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 11:47:00 AM	71799
Xylenes, Total	ND	0.094		mg/Kg	1	12/3/2022 11:47:00 AM	71799
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	12/3/2022 11:47:00 AM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2211E59**
Date Reported: **12/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-005 **Matrix:** SOIL

Client Sample ID: S5A 1'
Collection Date: 11/28/2022 9:40:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	59		mg/Kg	20	12/6/2022 2:33:18 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 3:07:12 PM	71805
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 3:07:12 PM	71805
Surr: DNOP	115	21-129		%Rec	1	12/5/2022 3:07:12 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/3/2022 12:06:00 PM	71799
Surr: BFB	96.4	37.7-212		%Rec	1	12/3/2022 12:06:00 PM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.023		mg/Kg	1	12/3/2022 12:06:00 PM	71799
Toluene	ND	0.046		mg/Kg	1	12/3/2022 12:06:00 PM	71799
Ethylbenzene	ND	0.046		mg/Kg	1	12/3/2022 12:06:00 PM	71799
Xylenes, Total	ND	0.091		mg/Kg	1	12/3/2022 12:06:00 PM	71799
Surr: 4-Bromofluorobenzene	94.7	70-130		%Rec	1	12/3/2022 12:06:00 PM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-006 **Matrix:** SOIL

Client Sample ID: S6A 1'
Collection Date: 11/28/2022 9:50:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:45:43 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	12/2/2022 11:26:15 PM	71805
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/2/2022 11:26:15 PM	71805
Surr: DNOP	89.8	21-129		%Rec	1	12/2/2022 11:26:15 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/3/2022 12:26:00 PM	71799
Surr: BFB	95.6	37.7-212		%Rec	1	12/3/2022 12:26:00 PM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.023		mg/Kg	1	12/3/2022 12:26:00 PM	71799
Toluene	ND	0.046		mg/Kg	1	12/3/2022 12:26:00 PM	71799
Ethylbenzene	ND	0.046		mg/Kg	1	12/3/2022 12:26:00 PM	71799
Xylenes, Total	ND	0.092		mg/Kg	1	12/3/2022 12:26:00 PM	71799
Surr: 4-Bromofluorobenzene	97.2	70-130		%Rec	1	12/3/2022 12:26:00 PM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2211E59**
Date Reported: **12/8/2022**

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-007 **Matrix:** SOIL

Client Sample ID: S7A 1'
Collection Date: 11/28/2022 10:00:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:58:08 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	2800	140		mg/Kg	10	12/2/2022 8:10:15 PM	71805
Motor Oil Range Organics (MRO)	1600	470		mg/Kg	10	12/2/2022 8:10:15 PM	71805
Surr: DNOP	0	21-129	S	%Rec	10	12/2/2022 8:10:15 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/3/2022 12:46:00 PM	71799
Surr: BFB	107	37.7-212		%Rec	1	12/3/2022 12:46:00 PM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 12:46:00 PM	71799
Toluene	ND	0.049		mg/Kg	1	12/3/2022 12:46:00 PM	71799
Ethylbenzene	ND	0.049		mg/Kg	1	12/3/2022 12:46:00 PM	71799
Xylenes, Total	ND	0.098		mg/Kg	1	12/3/2022 12:46:00 PM	71799
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	12/3/2022 12:46:00 PM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: S9A 1'
Project: Uncle Chess
Collection Date: 11/28/2022 10:10:00 AM
Lab ID: 2211E59-008 **Matrix:** SOIL **Received Date:** 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 3:10:33 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	12/2/2022 11:40:00 PM	71805
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/2/2022 11:40:00 PM	71805
Surr: DNOP	102	21-129		%Rec	1	12/2/2022 11:40:00 PM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2022 1:06:00 PM	71799
Surr: BFB	91.7	37.7-212		%Rec	1	12/3/2022 1:06:00 PM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 1:06:00 PM	71799
Toluene	ND	0.050		mg/Kg	1	12/3/2022 1:06:00 PM	71799
Ethylbenzene	ND	0.050		mg/Kg	1	12/3/2022 1:06:00 PM	71799
Xylenes, Total	ND	0.099		mg/Kg	1	12/3/2022 1:06:00 PM	71799
Surr: 4-Bromofluorobenzene	95.5	70-130		%Rec	1	12/3/2022 1:06:00 PM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-009 **Matrix:** SOIL

Client Sample ID: S10A 1'
Collection Date: 11/28/2022 10:20:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 3:47:46 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/3/2022 12:06:59 AM	71805
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/3/2022 12:06:59 AM	71805
Surr: DNOP	100	21-129		%Rec	1	12/3/2022 12:06:59 AM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 1:25:00 PM	71799
Surr: BFB	94.1	37.7-212		%Rec	1	12/3/2022 1:25:00 PM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 1:25:00 PM	71799
Toluene	ND	0.048		mg/Kg	1	12/3/2022 1:25:00 PM	71799
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 1:25:00 PM	71799
Xylenes, Total	ND	0.096		mg/Kg	1	12/3/2022 1:25:00 PM	71799
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	12/3/2022 1:25:00 PM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-010 **Matrix:** SOIL

Client Sample ID: S13A 1'
Collection Date: 11/28/2022 10:30:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:00:11 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	180	15		mg/Kg	1	12/3/2022 12:20:31 AM	71805
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	12/3/2022 12:20:31 AM	71805
Surr: DNOP	91.5	21-129		%Rec	1	12/3/2022 12:20:31 AM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 1:45:00 PM	71799
Surr: BFB	98.1	37.7-212		%Rec	1	12/3/2022 1:45:00 PM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 1:45:00 PM	71799
Toluene	ND	0.047		mg/Kg	1	12/3/2022 1:45:00 PM	71799
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 1:45:00 PM	71799
Xylenes, Total	ND	0.094		mg/Kg	1	12/3/2022 1:45:00 PM	71799
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	12/3/2022 1:45:00 PM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-011 **Matrix:** SOIL

Client Sample ID: S14A 7'
Collection Date: 11/28/2022 10:40:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:12:36 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	110	14		mg/Kg	1	12/3/2022 12:34:06 AM	71805
Motor Oil Range Organics (MRO)	81	47		mg/Kg	1	12/3/2022 12:34:06 AM	71805
Surr: DNOP	101	21-129		%Rec	1	12/3/2022 12:34:06 AM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 2:05:00 PM	71799
Surr: BFB	95.2	37.7-212		%Rec	1	12/3/2022 2:05:00 PM	71799
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 2:05:00 PM	71799
Toluene	ND	0.047		mg/Kg	1	12/3/2022 2:05:00 PM	71799
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 2:05:00 PM	71799
Xylenes, Total	ND	0.095		mg/Kg	1	12/3/2022 2:05:00 PM	71799
Surr: 4-Bromofluorobenzene	95.2	70-130		%Rec	1	12/3/2022 2:05:00 PM	71799

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-012 **Matrix:** SOIL

Client Sample ID: S15A 1.5'
Collection Date: 11/28/2022 10:50:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:25:01 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/3/2022 12:47:35 AM	71805
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/3/2022 12:47:35 AM	71805
Surr: DNOP	101	21-129		%Rec	1	12/3/2022 12:47:35 AM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/2/2022 10:46:08 PM	71800
Surr: BFB	88.8	37.7-212		%Rec	1	12/2/2022 10:46:08 PM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/2/2022 10:46:08 PM	71800
Toluene	ND	0.049		mg/Kg	1	12/2/2022 10:46:08 PM	71800
Ethylbenzene	ND	0.049		mg/Kg	1	12/2/2022 10:46:08 PM	71800
Xylenes, Total	ND	0.097		mg/Kg	1	12/2/2022 10:46:08 PM	71800
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	12/2/2022 10:46:08 PM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2211E59**
Date Reported: **12/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-013 **Matrix:** SOIL

Client Sample ID: S18A 1.5'
Collection Date: 11/28/2022 11:00:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:37:26 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/3/2022 1:01:13 AM	71805
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/3/2022 1:01:13 AM	71805
Surr: DNOP	99.2	21-129		%Rec	1	12/3/2022 1:01:13 AM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 12:43:41 AM	71800
Surr: BFB	88.8	37.7-212		%Rec	1	12/3/2022 12:43:41 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 12:43:41 AM	71800
Toluene	ND	0.048		mg/Kg	1	12/3/2022 12:43:41 AM	71800
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 12:43:41 AM	71800
Xylenes, Total	ND	0.095		mg/Kg	1	12/3/2022 12:43:41 AM	71800
Surr: 4-Bromofluorobenzene	91.2	70-130		%Rec	1	12/3/2022 12:43:41 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2211E59**
Date Reported: **12/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-014 **Matrix:** SOIL

Client Sample ID: S19A 1.5'
Collection Date: 11/28/2022 11:10:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:49:51 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	65	14		mg/Kg	1	12/3/2022 1:14:18 AM	71805
Motor Oil Range Organics (MRO)	58	48		mg/Kg	1	12/3/2022 1:14:18 AM	71805
Surr: DNOP	85.1	21-129		%Rec	1	12/3/2022 1:14:18 AM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 1:54:04 AM	71800
Surr: BFB	88.8	37.7-212		%Rec	1	12/3/2022 1:54:04 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 1:54:04 AM	71800
Toluene	ND	0.048		mg/Kg	1	12/3/2022 1:54:04 AM	71800
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 1:54:04 AM	71800
Xylenes, Total	ND	0.096		mg/Kg	1	12/3/2022 1:54:04 AM	71800
Surr: 4-Bromofluorobenzene	92.8	70-130		%Rec	1	12/3/2022 1:54:04 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Chess
Lab ID: 2211E59-015 **Matrix:** SOIL

Client Sample ID: S20A 1.5'
Collection Date: 11/28/2022 11:20:00 AM
Received Date: 11/30/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 5:02:16 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/3/2022 1:27:19 AM	71805
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/3/2022 1:27:19 AM	71805
Surr: DNOP	94.7	21-129		%Rec	1	12/3/2022 1:27:19 AM	71805
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 2:17:25 AM	71800
Surr: BFB	87.6	37.7-212		%Rec	1	12/3/2022 2:17:25 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 2:17:25 AM	71800
Toluene	ND	0.048		mg/Kg	1	12/3/2022 2:17:25 AM	71800
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 2:17:25 AM	71800
Xylenes, Total	ND	0.095		mg/Kg	1	12/3/2022 2:17:25 AM	71800
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	12/3/2022 2:17:25 AM	71800

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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2211E59**

08-Dec-22

Client: R & R Environmental

Project: Uncle Chess

Sample ID: **MB-71860**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **71860**	RunNo: **93034**
Prep Date: **12/5/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350498** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-71860**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **71860**	RunNo: **93034**
Prep Date: **12/5/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350499** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2211E59**

08-Dec-22

Client: R & R Environmental

Project: Uncle Chess

Sample ID: **MB-71813**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **71813**			RunNo: **92982**					
Prep Date: **12/2/2022**	Analysis Date: **12/2/2022**			SeqNo: **3348099**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		99.3	21	129			

Sample ID: **LCS-71813**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **71813**			RunNo: **92982**					
Prep Date: **12/2/2022**	Analysis Date: **12/2/2022**			SeqNo: **3348100**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.2	21	129			

Sample ID: **MB-71805**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **71805**			RunNo: **92982**					
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**			SeqNo: **3349686**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		90.0	21	129			

Sample ID: **LCS-71805**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **71805**			RunNo: **92982**					
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**			SeqNo: **3349687**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	95.6	64.4	127			
Surr: DNOP	4.8		5.000		96.1	21	129			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2211E59**

08-Dec-22

Client: R & R Environmental

Project: Uncle Chess

Sample ID: **mb-71800**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348400** 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	890		1000		88.9	37.7	212			

Sample ID: **lcs-71800**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348401** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.2	72.3	137			
Surr: BFB	1800		1000		179	37.7	212			

Sample ID: **2211e59-012ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S15A 1.5'**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348403** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.32	0	102	70	130			
Surr: BFB	2000		972.8		202	37.7	212			

Sample ID: **2211e59-012amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S15A 1.5'**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.34	0	96.6	70	130	5.58	20	
Surr: BFB	1900		973.7		194	37.7	212	0	0	

Sample ID: **lcs-71799**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **71799**	RunNo: **93006**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3349304** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.6	72.3	137			
Surr: BFB	2100		1000		206	37.7	212			

Sample ID: **mb-71799**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **71799**	RunNo: **93006**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3349305** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2211E59**

08-Dec-22

Client: R & R Environmental

Project: Uncle Chess

Sample ID: **mb-71799**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **71799**	RunNo: **93006**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3349305** 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	940		1000		93.8	37.7	212			

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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2211E59**

08-Dec-22

Client: R & R Environmental

Project: Uncle Chess

Sample ID: **mb-71800**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348471** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	70	130			

Sample ID: **LCS-71800**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348472** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.0	80	120			
Toluene	0.93	0.050	1.000	0	92.7	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.0	70	130			

Sample ID: **2211e59-013ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S18A 1.5'**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.024	0.9542	0.01288	102	68.8	120			
Toluene	1.0	0.048	0.9542	0.01212	107	73.6	124			
Ethylbenzene	1.0	0.048	0.9542	0.01260	108	72.7	129			
Xylenes, Total	3.1	0.095	2.863	0.01975	109	75.7	126			
Surr: 4-Bromofluorobenzene	0.91		0.9542		95.5	70	130			

Sample ID: **2211e59-013amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S18A 1.5'**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9542	0.01288	103	68.8	120	1.55	20	
Toluene	1.0	0.048	0.9542	0.01212	106	73.6	124	0.735	20	
Ethylbenzene	1.0	0.048	0.9542	0.01260	108	72.7	129	0.458	20	
Xylenes, Total	3.1	0.095	2.863	0.01975	108	75.7	126	0.967	20	
Surr: 4-Bromofluorobenzene	0.90		0.9542		94.8	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2211E59**

08-Dec-22

Client: R & R Environmental

Project: Uncle Chess

Sample ID: **lcs-71799**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **71799**	RunNo: **93006**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3349398** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.4	80	120			
Toluene	0.89	0.050	1.000	0	89.2	80	120			
Ethylbenzene	0.88	0.050	1.000	0	87.9	80	120			
Xylenes, Total	2.6	0.10	3.000	0	87.4	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.6	70	130			

Sample ID: **mb-71799**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **71799**	RunNo: **93006**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3349399** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.9	70	130			

Sample ID: **2211E59-001ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S1A 5'**	Batch ID: **71799**	RunNo: **93006**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3349410** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9843	0	99.6	68.8	120			
Toluene	0.99	0.049	0.9843	0	101	73.6	124			
Ethylbenzene	0.99	0.049	0.9843	0	101	72.7	129			
Xylenes, Total	3.0	0.098	2.953	0	101	75.7	126			
Surr: 4-Bromofluorobenzene	0.95		0.9843		96.4	70	130			

Sample ID: **2211E59-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S1A 5'**	Batch ID: **71799**	RunNo: **93006**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3349411** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9881	0	102	68.8	120	2.57	20	
Toluene	1.0	0.049	0.9881	0	103	73.6	124	2.27	20	
Ethylbenzene	1.0	0.049	0.9881	0	103	72.7	129	2.58	20	
Xylenes, Total	3.0	0.099	2.964	0	102	75.7	126	2.22	20	
Surr: 4-Bromofluorobenzene	0.95		0.9881		96.1	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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: R & R Environmental | Work Order Number: 2211E59 | RcptNo: 1

Received By:	Sean Livingston	11/30/2022 7:40:00 AM	S Livingston
Completed By:	Sean Livingston	11/30/2022 9:06:05 AM	S Livingston
Reviewed By:	TMC	11/30/23	

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° C to 6.0°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: KMC 11.30.22

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	0.7	Good				

pg 1 of 2

Chain-of-Custody Record

Client: R & R Environmental

Mailing Address: 705 Cresswell St Carlsbad NM

Phone #: 575.247.1102

email or Fax#: James@RRENVIRONMENTAL.NET

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☒ Rush 5-Day

Project Name: Undesignated

Project #:

Project Manager: James Cromas

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.7 +0.0 = 0.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2211E59
11/28	9:00	SO:1	S1A 5'	Glass 1	Ice/Cool	001
	9:10		S1A 7'			002
	9:20		S2A 1'			003
	9:30		S3A 1.5'			004
	9:40		S5A 1.'			005
	9:50		S 6A 1'			006
	10.00		S 7A 1'			007
	10:10		S 9A 1'			008
	10:20		S 10A 1'			009
	10:30		S 13A 1'			010
	10:40		S 14A 7½' per Erin	see 11/30/22		011
	10:50		S 15A 1.5'			012

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_3, NO_2, PO_4, SO_4, 8260 (VOA), 8270 (Semi-VOA), Total Coliform (Present/Absent)

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
11/29/22	805	James Cromas	[signature]		11/29/22	805
11/30/22	1900	[signature]	[signature]	courier	11/30/22	7:40

Remarks:
Email results
james.cromas@aol.com
james@rrenvironmental.net
art@rrenvironmental.net

pg 1 of 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.

Pg 2 of 2

Chain-of-Custody Record

Client: RER Environmental

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☑ Rush 5-Day

Project Name: Uncle Ches

Project #:

Project Manager:

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 0.7 ±0-0.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	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_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/29	11:00	Soil	S-18A 1.5'	Glass Jar/1	Ice/Cool	013	X	X					X			
	11:10		S-19A 1.5'			014	X	X					X			
	11:20		S-20A 1.5'			015	X	X					X			

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
11/29/22	805				11/29/22	805
11/29/22	1900		See courier		11/30/22	7:40

Remarks: See pg 1

Pg 1 of 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

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

December 09, 2022

Rebecca Pons
R & R Environmental
1505 W. Bullock Ave
Artesia, NM 88210
TEL: (575) 616-9340
FAX:

RE: Uncle Ches TB

OrderNo.: 2212005

Dear Rebecca Pons:

Hall Environmental Analysis Laboratory received 18 sample(s) on 12/1/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2212005**
Date Reported: **12/9/2022**

CLIENT: R & R Environmental
Client Sample ID: SW-1
Project: Uncle Ches TB
Collection Date: 11/28/2022 2:00:00 PM
Lab ID: 2212005-001 **Matrix:** SOIL
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 5:14:41 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 10:06:18 AM	71834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 10:06:18 AM	71834
Surr: DNOP	98.2	21-129		%Rec	1	12/5/2022 10:06:18 AM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 6:34:12 AM	71800
Surr: BFB	84.8	37.7-212		%Rec	1	12/3/2022 6:34:12 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 6:34:12 AM	71800
Toluene	ND	0.048		mg/Kg	1	12/3/2022 6:34:12 AM	71800
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 6:34:12 AM	71800
Xylenes, Total	ND	0.095		mg/Kg	1	12/3/2022 6:34:12 AM	71800
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	12/3/2022 6:34:12 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: SW-2
Project: Uncle Ches TB
Collection Date: 11/28/2022 2:05:00 PM
Lab ID: 2212005-002 **Matrix:** SOIL **Received Date:** 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 5:27:06 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 10:47:47 AM	71834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 10:47:47 AM	71834
Surr: DNOP	96.8	21-129		%Rec	1	12/5/2022 10:47:47 AM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 6:57:33 AM	71800
Surr: BFB	87.0	37.7-212		%Rec	1	12/3/2022 6:57:33 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 6:57:33 AM	71800
Toluene	ND	0.048		mg/Kg	1	12/3/2022 6:57:33 AM	71800
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 6:57:33 AM	71800
Xylenes, Total	ND	0.095		mg/Kg	1	12/3/2022 6:57:33 AM	71800
Surr: 4-Bromofluorobenzene	91.5	70-130		%Rec	1	12/3/2022 6:57:33 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: SW-3
Project: Uncle Ches TB
Collection Date: 11/28/2022 2:10:00 PM
Lab ID: 2212005-003 **Matrix:** SOIL **Received Date:** 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	61		mg/Kg	20	12/6/2022 5:39:31 AM	71860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	61	15		mg/Kg	1	12/5/2022 11:01:23 AM	71834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 11:01:23 AM	71834
Surr: DNOP	96.4	21-129		%Rec	1	12/5/2022 11:01:23 AM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 7:20:52 AM	71800
Surr: BFB	86.2	37.7-212		%Rec	1	12/3/2022 7:20:52 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 7:20:52 AM	71800
Toluene	ND	0.047		mg/Kg	1	12/3/2022 7:20:52 AM	71800
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 7:20:52 AM	71800
Xylenes, Total	ND	0.095		mg/Kg	1	12/3/2022 7:20:52 AM	71800
Surr: 4-Bromofluorobenzene	90.3	70-130		%Rec	1	12/3/2022 7:20:52 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-004 **Matrix:** SOIL

Client Sample ID: SW-5
Collection Date: 11/28/2022 2:15:00 PM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 11:57:18 AM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	1200	150		mg/Kg	10	12/5/2022 10:19:19 AM	71834
Motor Oil Range Organics (MRO)	500	490		mg/Kg	10	12/5/2022 10:19:19 AM	71834
Surr: DNOP	0	21-129	S	%Rec	10	12/5/2022 10:19:19 AM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/3/2022 7:44:12 AM	71800
Surr: BFB	120	37.7-212		%Rec	1	12/3/2022 7:44:12 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	12/3/2022 7:44:12 AM	71800
Toluene	ND	0.046		mg/Kg	1	12/3/2022 7:44:12 AM	71800
Ethylbenzene	ND	0.046		mg/Kg	1	12/3/2022 7:44:12 AM	71800
Xylenes, Total	ND	0.093		mg/Kg	1	12/3/2022 7:44:12 AM	71800
Surr: 4-Bromofluorobenzene	93.2	70-130		%Rec	1	12/3/2022 7:44:12 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: SW-6
Project: Uncle Ches TB
Collection Date: 11/28/2022 2:20:00 PM
Lab ID: 2212005-005 **Matrix:** SOIL **Received Date:** 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 12:34:32 PM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 11:15:32 AM	71834
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/5/2022 11:15:32 AM	71834
Surr: DNOP	98.2	21-129		%Rec	1	12/5/2022 11:15:32 AM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2022 8:07:33 AM	71800
Surr: BFB	88.0	37.7-212		%Rec	1	12/3/2022 8:07:33 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 8:07:33 AM	71800
Toluene	ND	0.050		mg/Kg	1	12/3/2022 8:07:33 AM	71800
Ethylbenzene	ND	0.050		mg/Kg	1	12/3/2022 8:07:33 AM	71800
Xylenes, Total	ND	0.099		mg/Kg	1	12/3/2022 8:07:33 AM	71800
Surr: 4-Bromofluorobenzene	92.2	70-130		%Rec	1	12/3/2022 8:07:33 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2212005**
Date Reported: **12/9/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-006 **Matrix:** SOIL

Client Sample ID: SW-7
Collection Date: 11/28/2022 2:25:00 PM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 1:36:34 PM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 11:29:38 AM	71834
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/5/2022 11:29:38 AM	71834
Surr: DNOP	97.2	21-129		%Rec	1	12/5/2022 11:29:38 AM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2022 8:30:54 AM	71800
Surr: BFB	87.4	37.7-212		%Rec	1	12/3/2022 8:30:54 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 8:30:54 AM	71800
Toluene	ND	0.050		mg/Kg	1	12/3/2022 8:30:54 AM	71800
Ethylbenzene	ND	0.050		mg/Kg	1	12/3/2022 8:30:54 AM	71800
Xylenes, Total	ND	0.099		mg/Kg	1	12/3/2022 8:30:54 AM	71800
Surr: 4-Bromofluorobenzene	90.3	70-130		%Rec	1	12/3/2022 8:30:54 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Client Sample ID: SW-8
Project: Uncle Ches TB
Collection Date: 11/28/2022 2:30:00 PM
Lab ID: 2212005-007 **Matrix:** SOIL
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 1:48:58 PM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	53	15		mg/Kg	1	12/5/2022 11:43:39 AM	71834
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/5/2022 11:43:39 AM	71834
Surr: DNOP	98.7	21-129		%Rec	1	12/5/2022 11:43:39 AM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 8:54:16 AM	71800
Surr: BFB	87.0	37.7-212		%Rec	1	12/3/2022 8:54:16 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 8:54:16 AM	71800
Toluene	ND	0.048		mg/Kg	1	12/3/2022 8:54:16 AM	71800
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 8:54:16 AM	71800
Xylenes, Total	ND	0.097		mg/Kg	1	12/3/2022 8:54:16 AM	71800
Surr: 4-Bromofluorobenzene	90.1	70-130		%Rec	1	12/3/2022 8:54:16 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2212005**
Date Reported: **12/9/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-008 **Matrix:** SOIL

Client Sample ID: BG-1 0'
Collection Date: 11/28/2022 2:40:00 PM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:01:23 PM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	12/5/2022 12:11:33 PM	71834
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	12/5/2022 12:11:33 PM	71834
Surr: DNOP	105	21-129		%Rec	1	12/5/2022 12:11:33 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/3/2022 9:17:37 AM	71800
Surr: BFB	88.2	37.7-212		%Rec	1	12/3/2022 9:17:37 AM	71800
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	12/3/2022 9:17:37 AM	71800
Toluene	ND	0.046		mg/Kg	1	12/3/2022 9:17:37 AM	71800
Ethylbenzene	ND	0.046		mg/Kg	1	12/3/2022 9:17:37 AM	71800
Xylenes, Total	ND	0.092		mg/Kg	1	12/3/2022 9:17:37 AM	71800
Surr: 4-Bromofluorobenzene	91.9	70-130		%Rec	1	12/3/2022 9:17:37 AM	71800

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-009 **Matrix:** SOIL

Client Sample ID: BG-2 0'
Collection Date: 11/28/2022 2:45:00 PM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:13:47 PM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 12:25:28 PM	71834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 12:25:28 PM	71834
Surr: DNOP	112	21-129		%Rec	1	12/5/2022 12:25:28 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 10:51:10 AM	71803
Surr: BFB	87.1	37.7-212		%Rec	1	12/3/2022 10:51:10 AM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 10:51:10 AM	71803
Toluene	ND	0.047		mg/Kg	1	12/3/2022 10:51:10 AM	71803
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 10:51:10 AM	71803
Xylenes, Total	ND	0.094		mg/Kg	1	12/3/2022 10:51:10 AM	71803
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	12/3/2022 10:51:10 AM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-010 **Matrix:** SOIL

Client Sample ID: BG-3 0'
Collection Date: 11/28/2022 2:50:00 PM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:26:11 PM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 12:39:26 PM	71834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 12:39:26 PM	71834
Surr: DNOP	95.2	21-129		%Rec	1	12/5/2022 12:39:26 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/3/2022 12:48:31 PM	71803
Surr: BFB	89.2	37.7-212		%Rec	1	12/3/2022 12:48:31 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 12:48:31 PM	71803
Toluene	ND	0.049		mg/Kg	1	12/3/2022 12:48:31 PM	71803
Ethylbenzene	ND	0.049		mg/Kg	1	12/3/2022 12:48:31 PM	71803
Xylenes, Total	ND	0.098		mg/Kg	1	12/3/2022 12:48:31 PM	71803
Surr: 4-Bromofluorobenzene	90.8	70-130		%Rec	1	12/3/2022 12:48:31 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-011 **Matrix:** SOIL

Client Sample ID: BG-4 0'
Collection Date: 11/28/2022 2:55:00 PM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 2:38:36 PM	71864
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	12/5/2022 12:53:21 PM	71834
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	12/5/2022 12:53:21 PM	71834
Surr: DNOP	108	21-129		%Rec	1	12/5/2022 12:53:21 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 1:59:04 PM	71803
Surr: BFB	88.8	37.7-212		%Rec	1	12/3/2022 1:59:04 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 1:59:04 PM	71803
Toluene	ND	0.048		mg/Kg	1	12/3/2022 1:59:04 PM	71803
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 1:59:04 PM	71803
Xylenes, Total	ND	0.096		mg/Kg	1	12/3/2022 1:59:04 PM	71803
Surr: 4-Bromofluorobenzene	91.2	70-130		%Rec	1	12/3/2022 1:59:04 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-012 **Matrix:** SOIL

Client Sample ID: S-4A 1.5'
Collection Date: 11/29/2022 11:30:00 AM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 3:15:50 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	12/5/2022 1:07:19 PM	71834
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/5/2022 1:07:19 PM	71834
Surr: DNOP	93.4	21-129		%Rec	1	12/5/2022 1:07:19 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/3/2022 2:22:37 PM	71803
Surr: BFB	89.1	37.7-212		%Rec	1	12/3/2022 2:22:37 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 2:22:37 PM	71803
Toluene	ND	0.049		mg/Kg	1	12/3/2022 2:22:37 PM	71803
Ethylbenzene	ND	0.049		mg/Kg	1	12/3/2022 2:22:37 PM	71803
Xylenes, Total	ND	0.099		mg/Kg	1	12/3/2022 2:22:37 PM	71803
Surr: 4-Bromofluorobenzene	91.4	70-130		%Rec	1	12/3/2022 2:22:37 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-013 **Matrix:** SOIL

Client Sample ID: S-8A 1.5'
Collection Date: 11/29/2022 11:35:00 AM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	61		mg/Kg	20	12/6/2022 3:28:15 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	22	14		mg/Kg	1	12/5/2022 1:21:11 PM	71834
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/5/2022 1:21:11 PM	71834
Surr: DNOP	99.5	21-129		%Rec	1	12/5/2022 1:21:11 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 2:46:09 PM	71803
Surr: BFB	90.1	37.7-212		%Rec	1	12/3/2022 2:46:09 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 2:46:09 PM	71803
Toluene	ND	0.048		mg/Kg	1	12/3/2022 2:46:09 PM	71803
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 2:46:09 PM	71803
Xylenes, Total	ND	0.097		mg/Kg	1	12/3/2022 2:46:09 PM	71803
Surr: 4-Bromofluorobenzene	92.5	70-130		%Rec	1	12/3/2022 2:46:09 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2212005**
Date Reported: **12/9/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-014 **Matrix:** SOIL

Client Sample ID: S-11A 1.5'
Collection Date: 11/29/2022 11:40:00 AM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:05:29 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 1:35:05 PM	71834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 1:35:05 PM	71834
Surr: DNOP	99.2	21-129		%Rec	1	12/5/2022 1:35:05 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 3:09:36 PM	71803
Surr: BFB	91.5	37.7-212		%Rec	1	12/3/2022 3:09:36 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 3:09:36 PM	71803
Toluene	ND	0.047		mg/Kg	1	12/3/2022 3:09:36 PM	71803
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 3:09:36 PM	71803
Xylenes, Total	ND	0.094		mg/Kg	1	12/3/2022 3:09:36 PM	71803
Surr: 4-Bromofluorobenzene	94.7	70-130		%Rec	1	12/3/2022 3:09:36 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2212005**
Date Reported: **12/9/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-015 **Matrix:** SOIL

Client Sample ID: S-12A 1.5'
Collection Date: 11/29/2022 11:45:00 AM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:17:54 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	12/5/2022 1:49:06 PM	71834
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/5/2022 1:49:06 PM	71834
Surr: DNOP	103	21-129		%Rec	1	12/5/2022 1:49:06 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/3/2022 3:33:05 PM	71803
Surr: BFB	90.2	37.7-212		%Rec	1	12/3/2022 3:33:05 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 3:33:05 PM	71803
Toluene	ND	0.049		mg/Kg	1	12/3/2022 3:33:05 PM	71803
Ethylbenzene	ND	0.049		mg/Kg	1	12/3/2022 3:33:05 PM	71803
Xylenes, Total	ND	0.097		mg/Kg	1	12/3/2022 3:33:05 PM	71803
Surr: 4-Bromofluorobenzene	92.9	70-130		%Rec	1	12/3/2022 3:33:05 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-016 **Matrix:** SOIL

Client Sample ID: S-16A 2'
Collection Date: 11/29/2022 11:50:00 AM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:30:18 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	21	14		mg/Kg	1	12/5/2022 2:03:10 PM	71834
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/5/2022 2:03:10 PM	71834
Surr: DNOP	105	21-129		%Rec	1	12/5/2022 2:03:10 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2022 3:56:37 PM	71803
Surr: BFB	89.8	37.7-212		%Rec	1	12/3/2022 3:56:37 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 3:56:37 PM	71803
Toluene	ND	0.050		mg/Kg	1	12/3/2022 3:56:37 PM	71803
Ethylbenzene	ND	0.050		mg/Kg	1	12/3/2022 3:56:37 PM	71803
Xylenes, Total	ND	0.10		mg/Kg	1	12/3/2022 3:56:37 PM	71803
Surr: 4-Bromofluorobenzene	92.2	70-130		%Rec	1	12/3/2022 3:56:37 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-017 **Matrix:** SOIL

Client Sample ID: S-17A 2'
Collection Date: 11/29/2022 11:55:00 AM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:42:43 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	12/5/2022 2:17:20 PM	71834
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/5/2022 2:17:20 PM	71834
Surr: DNOP	92.5	21-129		%Rec	1	12/5/2022 2:17:20 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2022 4:20:04 PM	71803
Surr: BFB	89.1	37.7-212		%Rec	1	12/3/2022 4:20:04 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/3/2022 4:20:04 PM	71803
Toluene	ND	0.050		mg/Kg	1	12/3/2022 4:20:04 PM	71803
Ethylbenzene	ND	0.050		mg/Kg	1	12/3/2022 4:20:04 PM	71803
Xylenes, Total	ND	0.10		mg/Kg	1	12/3/2022 4:20:04 PM	71803
Surr: 4-Bromofluorobenzene	91.3	70-130		%Rec	1	12/3/2022 4:20:04 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2212005**
Date Reported: **12/9/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R & R Environmental
Project: Uncle Ches TB
Lab ID: 2212005-018 **Matrix:** SOIL

Client Sample ID: SW-4
Collection Date: 11/29/2022 12:00:00 PM
Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	12/6/2022 4:55:08 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	12/5/2022 3:00:01 PM	71834
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/5/2022 3:00:01 PM	71834
Surr: DNOP	97.1	21-129		%Rec	1	12/5/2022 3:00:01 PM	71834
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 4:43:32 PM	71803
Surr: BFB	90.6	37.7-212		%Rec	1	12/3/2022 4:43:32 PM	71803
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/3/2022 4:43:32 PM	71803
Toluene	ND	0.047		mg/Kg	1	12/3/2022 4:43:32 PM	71803
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 4:43:32 PM	71803
Xylenes, Total	ND	0.094		mg/Kg	1	12/3/2022 4:43:32 PM	71803
Surr: 4-Bromofluorobenzene	93.0	70-130		%Rec	1	12/3/2022 4:43:32 PM	71803

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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2212005**

09-Dec-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **MB-71860**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **71860**	RunNo: **93034**							
Prep Date: **12/5/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350498**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-71860**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **71860**	RunNo: **93034**							
Prep Date: **12/5/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350499**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Sample ID: **MB-71864**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **71864**	RunNo: **93070**							
Prep Date: **12/6/2022**	Analysis Date: **12/6/2022**	SeqNo: **3351864**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-71864**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **71864**	RunNo: **93070**							
Prep Date: **12/6/2022**	Analysis Date: **12/6/2022**	SeqNo: **3351865**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

Sample ID: **MB-71876**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **71876**	RunNo: **93070**							
Prep Date: **12/6/2022**	Analysis Date: **12/6/2022**	SeqNo: **3351894**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-71876**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **71876**	RunNo: **93070**							
Prep Date: **12/6/2022**	Analysis Date: **12/6/2022**	SeqNo: **3351895**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2212005**

09-Dec-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **MB-71834**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **71834**	RunNo: **93029**
Prep Date: **12/2/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350297** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.5	21	129			

Sample ID: **LCS-71834**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **71834**	RunNo: **93029**
Prep Date: **12/2/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350298** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	96.7	64.4	127			
Surr: DNOP	4.7		5.000		93.9	21	129			

Sample ID: **2212005-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SW-1**	Batch ID: **71834**	RunNo: **93029**
Prep Date: **12/2/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350300** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	14	46.30	13.77	78.4	36.1	154			
Surr: DNOP	4.4		4.630		95.2	21	129			

Sample ID: **2212005-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SW-1**	Batch ID: **71834**	RunNo: **93029**
Prep Date: **12/2/2022**	Analysis Date: **12/5/2022**	SeqNo: **3350301** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	14	47.89	13.77	75.8	36.1	154	0.0444	33.9	
Surr: DNOP	4.6		4.789		95.3	21	129	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2212005**

09-Dec-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **mb-71800**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348400** 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	890		1000		88.9	37.7	212			

Sample ID: **lcs-71800**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348401** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.2	72.3	137			
Surr: BFB	1800		1000		179	37.7	212			

Sample ID: **mb-71803**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348424** 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	870		1000		87.2	37.7	212			

Sample ID: **lcs-71803**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348425** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.9	72.3	137			
Surr: BFB	1700		1000		174	37.7	212			

Sample ID: **2212005-009ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BG-2 0'**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348427** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.7	23.32	0	91.1	70	130			
Surr: BFB	1700		932.8		186	37.7	212			

Sample ID: **2212005-009amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BG-2 0'**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348428** Units: **mg/Kg**

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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2212005**

09-Dec-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **2212005-009amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BG-2 0'**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348428** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.8	23.92	0	90.6	70	130	1.98	20	
Surr: BFB	1800		956.9		185	37.7	212	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2212005**

09-Dec-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **mb-71800**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348471** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	70	130			

Sample ID: **LCS-71800**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **71800**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/2/2022**	SeqNo: **3348472** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.0	80	120			
Toluene	0.93	0.050	1.000	0	92.7	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.0	70	130			

Sample ID: **mb-71803**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348495** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.4	70	130			

Sample ID: **LCS-71803**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348496** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	83.2	80	120			
Toluene	0.85	0.050	1.000	0	84.9	80	120			
Ethylbenzene	0.84	0.050	1.000	0	83.8	80	120			
Xylenes, Total	2.5	0.10	3.000	0	83.9	80	120			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2212005**

09-Dec-22

Client: R & R Environmental

Project: Uncle Ches TB

Sample ID: **2212005-010ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BG-3 0'**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348499** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9852	0.01332	93.5	68.8	120			
Toluene	0.98	0.049	0.9852	0	99.1	73.6	124			
Ethylbenzene	0.98	0.049	0.9852	0	99.9	72.7	129			
Xylenes, Total	3.0	0.099	2.956	0.01939	99.7	75.7	126			
Surr: 4-Bromofluorobenzene	0.93		0.9852		94.2	70	130			

Sample ID: **2212005-010amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BG-3 0'**	Batch ID: **71803**	RunNo: **92974**
Prep Date: **12/1/2022**	Analysis Date: **12/3/2022**	SeqNo: **3348500** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9785	0.01332	91.2	68.8	120	3.21	20	
Toluene	0.94	0.049	0.9785	0	96.0	73.6	124	3.80	20	
Ethylbenzene	0.95	0.049	0.9785	0	97.4	72.7	129	3.21	20	
Xylenes, Total	2.9	0.098	2.935	0.01939	96.6	75.7	126	3.78	20	
Surr: 4-Bromofluorobenzene	0.91		0.9785		93.0	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 Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: R & R Environmental | Work Order Number: 2212005 | RcptNo: 1

Received By: Juan Rojas 12/1/2022 7:35:00 AM

Completed By: Tracy Casarrubias 12/1/2022 8:10:56 AM

Reviewed By: 12-1-22

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° C to 6.0°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 12/1/22

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	1.7	Good	Yes			

Chain-of-Custody Record

Client: R & R Enterprises

Mailing Address: 1505 W Bullock
Artesia, NM 88210

Phone #: 575-616-9340

email or Fax#: rebecca@rrenvironmental.net

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☑ Rush 5-Day

Project Name:
Unit. Ches TB

Project #:
30000.004

Project Manager:
Rebecca Pons

Sampler: A. Parra

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.8-0.1=1.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2212005	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_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/23	2.00	Soil	SW-1	Glass/1	Ice/Cool	001	X	X					X			
	2:05		SW-2			002										
	2.10		SW-3			003										
	2:15		SW-5			004										
	2:20		SW-6			005										
	2:25		SW-7			006										
	2:30		SW-8			007										
	2:40		BG-1 0'			008										
	2:45		BG-2 0'			009										
	2:50		BG-3 0'			010										
	2:55		BG-4 0'			011										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
11/30	1130				11/30/22	1130
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
11/30	1900			courier	12/1/22	7:35

Remarks: Email results
james@rrenvironmental.net
art@rrenvironmental.net
rebecca@rrenvironmental.net

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.

Chain-of-Custody Record

Client: R & R Environmental

Mailing Address: 1505 W. Bullock
Artesia NM, 88210

Phone #: 575-746-9349

email or Fax#: james@rrenvironmental.net

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5-Day

Project Name: Uncle Ches TB

Project #: 30050.004

Project Manager: Rebecca Pons

Sampler: J Carnes

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(Including CF): 1.8-0.1=1.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2212005	(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_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/29	11:30	Soil	S-4A 1.5'	Glass/1	Ice/Cool	012	X	X					X			
	11:35		S-8A 1.5'			013										
	11:40		S-11A 1.5'			014										
	11:45		S-12A 1.5'			015										
	11:50		S-16A 2'			016										
	11:55		S-17A 2'			017										
	12:00		SW-4			018										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
11/30/22	800				11/30/22	800
11/30/22	1900				12/1/22	7:35

Remarks: Email results:
james@rrenvironmental.net
art@rrenvironmental.net
rebecca@rrenvironmental.net

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.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Rebecca Pons
R & R Environmental & Reclamation LLC
1505 W Bullock Ave
Artesia, New Mexico 88210

Generated 12/13/2022 10:54:01 AM

JOB DESCRIPTION

Uncle Ches TB
SDG NUMBER 30000.004

JOB NUMBER

890-3611-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
12/13/2022 10:54:01 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Table of Contents

Definitions/Glossary

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Job ID: 890-3611-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3611-1

Receipt
The sample was received on 12/8/2022 12:10 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 20.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: S-7A (890-3611-1).

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-41491 and analytical batch 880-41523 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-41523/5), (LCS 880-41491/2-A) and (LCSD 880-41491/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-41491 and analytical batch 880-41523 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Client Sample ID: S-7A

Date Collected: 12/08/22 10:25
Date Received: 12/08/22 12:10
Sample Depth: 1.5'

Lab Sample ID: 890-3611-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	0.000387	mg/Kg		12/08/22 15:57	12/09/22 17:40	1
Toluene	<0.00201	U	0.00201	0.000459	mg/Kg		12/08/22 15:57	12/09/22 17:40	1
Ethylbenzene	<0.00201	U	0.00201	0.000568	mg/Kg		12/08/22 15:57	12/09/22 17:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00102	mg/Kg		12/08/22 15:57	12/09/22 17:40	1
o-Xylene	0.000540	J	0.00201	0.000346	mg/Kg		12/08/22 15:57	12/09/22 17:40	1
Xylenes, Total	<0.00402	U	0.00402	0.00102	mg/Kg		12/08/22 15:57	12/09/22 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*12/08/22 15:57*	*12/09/22 17:40*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*12/08/22 15:57*	*12/09/22 17:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	0.00102	mg/Kg			12/12/22 15:56	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	27.8	J	49.9	15.0	mg/Kg			12/12/22 12:52	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	27.8	J B	49.9	15.0	mg/Kg		12/09/22 14:59	12/11/22 15:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	15.0	mg/Kg		12/09/22 14:59	12/11/22 15:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0	mg/Kg		12/09/22 14:59	12/11/22 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*12/09/22 14:59*	*12/11/22 15:11*	*1*
o-Terphenyl	*96*		*70 - 130*	*12/09/22 14:59*	*12/11/22 15:11*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.6		5.04	0.398	mg/Kg			12/10/22 11:05	1

Surrogate Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-41393/1-A	Lab Control Sample	101	111
LCSD 880-41393/2-A	Lab Control Sample Dup	104	112
MB 880-41393/5-A	Method Blank	86	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-41491/2-A	Lab Control Sample	147 S1+	136 S1+
LCSD 880-41491/3-A	Lab Control Sample Dup	144 S1+	136 S1+
MB 880-41491/1-A	Method Blank	113	151 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-41393/5-A
Matrix: Solid
Analysis Batch: 41420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		12/08/22 15:57	12/09/22 11:50	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		12/08/22 15:57	12/09/22 11:50	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		12/08/22 15:57	12/09/22 11:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		12/08/22 15:57	12/09/22 11:50	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		12/08/22 15:57	12/09/22 11:50	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		12/08/22 15:57	12/09/22 11:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*12/08/22 15:57*	*12/09/22 11:50*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*12/08/22 15:57*	*12/09/22 11:50*	*1*

Lab Sample ID: LCS 880-41393/1-A
Matrix: Solid
Analysis Batch: 41420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1221		mg/Kg		122	70 - 130
Toluene	0.100	0.1089		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.1108		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	0.200	0.2201		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1084		mg/Kg		108	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-41393/2-A
Matrix: Solid
Analysis Batch: 41420

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41393

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1225		mg/Kg		122	70 - 130	0	35
Toluene	0.100	0.1087		mg/Kg		109	70 - 130	0	35
Ethylbenzene	0.100	0.1061		mg/Kg		106	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2133		mg/Kg		107	70 - 130	3	35
o-Xylene	0.100	0.1043		mg/Kg		104	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

QC Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-41491/1-A
Matrix: Solid
Analysis Batch: 41523

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	21.00	J	50.0	15.0	mg/Kg		12/09/22 14:59	12/11/22 09:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0	mg/Kg		12/09/22 14:59	12/11/22 09:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	15.0	mg/Kg		12/09/22 14:59	12/11/22 09:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*12/09/22 14:59*	*12/11/22 09:16*	*1*
o-Terphenyl	*151*	*S1+*	*70 - 130*	*12/09/22 14:59*	*12/11/22 09:16*	*1*

Lab Sample ID: LCS 880-41491/2-A
Matrix: Solid
Analysis Batch: 41523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	869.9		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1019		mg/Kg		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*147*	*S1+*	*70 - 130*
o-Terphenyl	*136*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-41491/3-A
Matrix: Solid
Analysis Batch: 41523

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41491

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	857.3		mg/Kg		86	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	969.5		mg/Kg		97	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*144*	*S1+*	*70 - 130*
o-Terphenyl	*136*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-41433/1-A
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.395	mg/Kg			12/10/22 08:45	1

QC Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-41433/2-A
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.9		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-41433/3-A
Matrix: Solid
Analysis Batch: 41532

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	261.5		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

GC VOA

Prep Batch: 41393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Total/NA	Solid	5035	
MB 880-41393/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-41393/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-41393/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 41420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Total/NA	Solid	8021B	41393
MB 880-41393/5-A	Method Blank	Total/NA	Solid	8021B	41393
LCS 880-41393/1-A	Lab Control Sample	Total/NA	Solid	8021B	41393
LCSD 880-41393/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	41393

Analysis Batch: 41670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 41491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Total/NA	Solid	8015NM Prep	
MB 880-41491/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-41491/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-41491/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 41523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Total/NA	Solid	8015B NM	41491
MB 880-41491/1-A	Method Blank	Total/NA	Solid	8015B NM	41491
LCS 880-41491/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	41491
LCSD 880-41491/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	41491

Analysis Batch: 41638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 41433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Soluble	Solid	DI Leach	
MB 880-41433/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41433/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41433/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 41532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3611-1	S-7A	Soluble	Solid	300.0	41433
MB 880-41433/1-A	Method Blank	Soluble	Solid	300.0	41433
LCS 880-41433/2-A	Lab Control Sample	Soluble	Solid	300.0	41433
LCSD 880-41433/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41433

Lab Chronicle

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Client Sample ID: S-7A

Date Collected: 12/08/22 10:25
Date Received: 12/08/22 12:10

Lab Sample ID: 890-3611-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	41393	12/08/22 15:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	41420	12/09/22 17:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			41670	12/12/22 15:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			41638	12/12/22 12:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	41491	12/09/22 14:59	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41523	12/11/22 15:11	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	41433	12/09/22 12:00	KS	EET MID
Soluble	Analysis	300.0		1			41532	12/10/22 11:05	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3611-1
SDG: 30000.004

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3611-1	S-7A	Solid	12/08/22 10:25	12/08/22 12:10	1.5'

eurofins | Environment Testing Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page _____ of _____

12/13/2022

Project Manager:	Rebecca Dow	Bill to: (if different)	
Company Name:	R&R Environmental	Company Name:	
Address:	1505 W. Bullock Ave	Address:	
City, State ZIP:	Artesia NM 88210	City, State ZIP:	
Phone:	Email:		

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Uncle Chos TB	Turn Around	
Project Number:	30000.004	☐ Routine ☒ Rush	
Project Location:	Lea County, NM	Due Date:	12-13-22
Sampler's Name:	J. Carnes	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	Tank 007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	20.2
Total Containers:		Corrected Temperature:	20.0

ANALYSIS REQUEST

Pres. Code / Parameters: Chlorides; BTEX; TPH

890-3611 Chain of Custody

Preservative Codes

None: NO; DI Water: H_2O
Cool: Cool; MeOH: Me
HCL: HC; HNO_3: HN
H_2SO_4: H_2; NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Chlorides	BTEX	TPH	Sample Comments
S-7A	Soil	12-8-22	10:25	1.5'	Comp	1	X	✓	X	Email results
										james.carnes@aol.com
										james@rreenvironmental.net
										rebecca@rreenvironmental.net

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Jema Gross	Amanda Stuff	12/8/22 1210	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Login Sample Receipt Checklist

Client: R & R Environmental & Reclamation LLC

Job Number: 890-3611-1
SDG Number: 30000.004

Login Number: 3611
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: R & R Environmental & Reclamation LLC

Job Number: 890-3611-1
SDG Number: 30000.004

Login Number: 3611
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 12/09/22 11:39 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Rebecca Pons
R & R Environmental & Reclamation LLC
1505 W Bullock Ave
Artesia, New Mexico 88210

Generated 12/27/2022 8:42:56 AM

JOB DESCRIPTION

Uncle Ches TB
SDG NUMBER Lea County NM

JOB NUMBER

890-3636-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
12/27/2022 8:42:56 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Table of Contents

Definitions/Glossary

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Job ID: 890-3636-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3636-1

Receipt
The samples were received on 12/13/2022 12:57 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 21.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: S-13B (890-3636-1), S-14B (890-3636-2), S-19B (890-3636-3) and SW-5A (890-3636-4).

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-41843 and analytical batch 880-42078 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-41843/2-A) and (LCSD 880-41843/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: S-13B (890-3636-1), S-14B (890-3636-2) and S-19B (890-3636-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-41843 and analytical batch 880-42078 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Client Sample ID: S-13B

Date Collected: 12/13/22 10:35
Date Received: 12/13/22 12:57
Sample Depth: 2

Lab Sample ID: 890-3636-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000384	mg/Kg		12/22/22 10:36	12/24/22 18:58	1
Toluene	<0.00200	U	0.00200	0.000455	mg/Kg		12/22/22 10:36	12/24/22 18:58	1
Ethylbenzene	<0.00200	U	0.00200	0.000564	mg/Kg		12/22/22 10:36	12/24/22 18:58	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	0.00101	mg/Kg		12/22/22 10:36	12/24/22 18:58	1
o-Xylene	<0.00200	U	0.00200	0.000343	mg/Kg		12/22/22 10:36	12/24/22 18:58	1
Xylenes, Total	<0.00399	U	0.00399	0.00101	mg/Kg		12/22/22 10:36	12/24/22 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*12/22/22 10:36*	*12/24/22 18:58*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*12/22/22 10:36*	*12/24/22 18:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	0.00101	mg/Kg			12/26/22 15:56	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.2		49.9	15.0	mg/Kg			12/19/22 15:35	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	39.0	J B	49.9	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:01	1
Diesel Range Organics (Over C10-C28)	17.9	J	49.9	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:01	1
Oil Range Organics (Over C28-C36)	15.3	J	49.9	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*12/14/22 15:35*	*12/17/22 20:01*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*12/14/22 15:35*	*12/17/22 20:01*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.37	J	5.00	0.395	mg/Kg			12/21/22 07:30	1

Client Sample ID: S-14B

Date Collected: 12/13/22 10:40
Date Received: 12/13/22 12:57
Sample Depth: 7.5

Lab Sample ID: 890-3636-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	0.000387	mg/Kg		12/22/22 10:36	12/24/22 19:19	1
Toluene	<0.00201	U	0.00201	0.000459	mg/Kg		12/22/22 10:36	12/24/22 19:19	1
Ethylbenzene	<0.00201	U	0.00201	0.000568	mg/Kg		12/22/22 10:36	12/24/22 19:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00102	mg/Kg		12/22/22 10:36	12/24/22 19:19	1
o-Xylene	<0.00201	U	0.00201	0.000346	mg/Kg		12/22/22 10:36	12/24/22 19:19	1
Xylenes, Total	<0.00402	U	0.00402	0.00102	mg/Kg		12/22/22 10:36	12/24/22 19:19	1

Client Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Client Sample ID: S-14B

Date Collected: 12/13/22 10:40
Date Received: 12/13/22 12:57
Sample Depth: 7.5

Lab Sample ID: 890-3636-2
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*12/22/22 10:36*	*12/24/22 19:19*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*12/22/22 10:36*	*12/24/22 19:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	0.00102	mg/Kg			12/26/22 15:56	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	53.2		49.9	15.0	mg/Kg			12/19/22 15:35	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	38.2	J B	49.9	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:23	1
Oil Range Organics (Over C28-C36)	15.0	J	49.9	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*127*		*70 - 130*	*12/14/22 15:35*	*12/17/22 20:23*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*12/14/22 15:35*	*12/17/22 20:23*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95	0.391	mg/Kg			12/21/22 07:37	1

Client Sample ID: S-19B

Date Collected: 12/13/22 10:45
Date Received: 12/13/22 12:57
Sample Depth: 2

Lab Sample ID: 890-3636-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383	mg/Kg		12/22/22 10:36	12/24/22 19:39	1
Toluene	<0.00199	U	0.00199	0.000454	mg/Kg		12/22/22 10:36	12/24/22 19:39	1
Ethylbenzene	<0.00199	U	0.00199	0.000563	mg/Kg		12/22/22 10:36	12/24/22 19:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00101	mg/Kg		12/22/22 10:36	12/24/22 19:39	1
o-Xylene	<0.00199	U	0.00199	0.000343	mg/Kg		12/22/22 10:36	12/24/22 19:39	1
Xylenes, Total	<0.00398	U	0.00398	0.00101	mg/Kg		12/22/22 10:36	12/24/22 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*12/22/22 10:36*	*12/24/22 19:39*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*12/22/22 10:36*	*12/24/22 19:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00101	mg/Kg			12/26/22 15:56	1

Client Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Client Sample ID: S-19B

Lab Sample ID: 890-3636-3
Matrix: Solid

Date Collected: 12/13/22 10:45
Date Received: 12/13/22 12:57
Sample Depth: 2

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	42.5	J	50.0	15.0	mg/Kg			12/19/22 15:35	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	25.5	J B	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:44	1
Diesel Range Organics (Over C10-C28)	17.0	J	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*12/14/22 15:35*	*12/17/22 20:44*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*12/14/22 15:35*	*12/17/22 20:44*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.17		5.02	0.397	mg/Kg			12/21/22 07:45	1

Client Sample ID: SW-5A

Lab Sample ID: 890-3636-4
Matrix: Solid

Date Collected: 12/13/22 10:30
Date Received: 12/13/22 12:57

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383	mg/Kg		12/22/22 10:36	12/24/22 20:00	1
Toluene	<0.00199	U	0.00199	0.000453	mg/Kg		12/22/22 10:36	12/24/22 20:00	1
Ethylbenzene	<0.00199	U	0.00199	0.000562	mg/Kg		12/22/22 10:36	12/24/22 20:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100	mg/Kg		12/22/22 10:36	12/24/22 20:00	1
o-Xylene	<0.00199	U	0.00199	0.000342	mg/Kg		12/22/22 10:36	12/24/22 20:00	1
Xylenes, Total	<0.00398	U	0.00398	0.00100	mg/Kg		12/22/22 10:36	12/24/22 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*12/22/22 10:36*	*12/24/22 20:00*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*12/22/22 10:36*	*12/24/22 20:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00100	mg/Kg			12/26/22 15:56	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	80.7		50.0	15.0	mg/Kg			12/19/22 15:35	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	48.4	J B	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 21:06	1
Diesel Range Organics (Over C10-C28)	17.1	J	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 21:06	1
Oil Range Organics (Over C28-C36)	15.2	J	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 21:06	1

Client Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Client Sample ID: SW-5A
Date Collected: 12/13/22 10:30
Date Received: 12/13/22 12:57

Lab Sample ID: 890-3636-4
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	12/14/22 15:35	12/17/22 21:06	1
o-Terphenyl	129		70 - 130	12/14/22 15:35	12/17/22 21:06	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.03	J	4.97	0.393	mg/Kg			12/21/22 07:53	1

Surrogate Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3636-1	S-13B	125	92
890-3636-2	S-14B	131 S1+	88
890-3636-3	S-19B	119	88
890-3636-4	SW-5A	123	83
LCS 880-42487/1-A	Lab Control Sample	100	84
LCSD 880-42487/2-A	Lab Control Sample Dup	102	80
MB 880-42487/5-A	Method Blank	101	82

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3636-1	S-13B	125	140 S1+
890-3636-2	S-14B	127	141 S1+
890-3636-3	S-19B	118	133 S1+
890-3636-4	SW-5A	116	129
LCS 880-41843/2-A	Lab Control Sample	127	139 S1+
LCSD 880-41843/3-A	Lab Control Sample Dup	124	132 S1+
MB 880-41843/1-A	Method Blank	134 S1+	154 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42487/5-A
Matrix: Solid
Analysis Batch: 42587

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		12/22/22 10:36	12/24/22 12:05	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		12/22/22 10:36	12/24/22 12:05	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		12/22/22 10:36	12/24/22 12:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		12/22/22 10:36	12/24/22 12:05	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		12/22/22 10:36	12/24/22 12:05	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		12/22/22 10:36	12/24/22 12:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*12/22/22 10:36*	*12/24/22 12:05*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*12/22/22 10:36*	*12/24/22 12:05*	*1*

Lab Sample ID: LCS 880-42487/1-A
Matrix: Solid
Analysis Batch: 42587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09857		mg/Kg		99	70 - 130
Toluene	0.100	0.09868		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09495		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.2062		mg/Kg		103	70 - 130
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: LCSD 880-42487/2-A
Matrix: Solid
Analysis Batch: 42587

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 42487

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1126		mg/Kg		113	70 - 130	13	35
Toluene	0.100	0.1004		mg/Kg		100	70 - 130	2	35
Ethylbenzene	0.100	0.1029		mg/Kg		103	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2181		mg/Kg		109	70 - 130	6	35
o-Xylene	0.100	0.1051		mg/Kg		105	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*

QC Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-41843/1-A
Matrix: Solid
Analysis Batch: 42078

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41843

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16.06	J	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 08:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 08:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0	mg/Kg		12/14/22 15:35	12/17/22 08:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*12/14/22 15:35*	*12/17/22 08:52*	*1*
o-Terphenyl	*154*	*S1+*	*70 - 130*	*12/14/22 15:35*	*12/17/22 08:52*	*1*

Lab Sample ID: LCS 880-41843/2-A
Matrix: Solid
Analysis Batch: 42078

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41843

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1168		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1193		mg/Kg		119	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*127*		*70 - 130*
o-Terphenyl	*139*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-41843/3-A
Matrix: Solid
Analysis Batch: 42078

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41843

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1010		mg/Kg		101	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	1000	1154		mg/Kg		115	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*124*		*70 - 130*
o-Terphenyl	*132*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-41929/1-A
Matrix: Solid
Analysis Batch: 42327

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.395	mg/Kg			12/21/22 04:24	1

QC Sample Results

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-41929/2-A
Matrix: Solid
Analysis Batch: 42327

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	246.0		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-41929/3-A
Matrix: Solid
Analysis Batch: 42327

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	245.9		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

GC VOA

Prep Batch: 42487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Total/NA	Solid	5035	
890-3636-2	S-14B	Total/NA	Solid	5035	
890-3636-3	S-19B	Total/NA	Solid	5035	
890-3636-4	SW-5A	Total/NA	Solid	5035	
MB 880-42487/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42487/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42487/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 42587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Total/NA	Solid	8021B	42487
890-3636-2	S-14B	Total/NA	Solid	8021B	42487
890-3636-3	S-19B	Total/NA	Solid	8021B	42487
890-3636-4	SW-5A	Total/NA	Solid	8021B	42487
MB 880-42487/5-A	Method Blank	Total/NA	Solid	8021B	42487
LCS 880-42487/1-A	Lab Control Sample	Total/NA	Solid	8021B	42487
LCSD 880-42487/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42487

Analysis Batch: 42600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Total/NA	Solid	Total BTEX	
890-3636-2	S-14B	Total/NA	Solid	Total BTEX	
890-3636-3	S-19B	Total/NA	Solid	Total BTEX	
890-3636-4	SW-5A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 41843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Total/NA	Solid	8015NM Prep	
890-3636-2	S-14B	Total/NA	Solid	8015NM Prep	
890-3636-3	S-19B	Total/NA	Solid	8015NM Prep	
890-3636-4	SW-5A	Total/NA	Solid	8015NM Prep	
MB 880-41843/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-41843/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-41843/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 42078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Total/NA	Solid	8015B NM	41843
890-3636-2	S-14B	Total/NA	Solid	8015B NM	41843
890-3636-3	S-19B	Total/NA	Solid	8015B NM	41843
890-3636-4	SW-5A	Total/NA	Solid	8015B NM	41843
MB 880-41843/1-A	Method Blank	Total/NA	Solid	8015B NM	41843
LCS 880-41843/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	41843
LCSD 880-41843/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	41843

Analysis Batch: 42226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Total/NA	Solid	8015 NM	
890-3636-2	S-14B	Total/NA	Solid	8015 NM	

QC Association Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 42226 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-3	S-19B	Total/NA	Solid	8015 NM	
890-3636-4	SW-5A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 41929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Soluble	Solid	DI Leach	
890-3636-2	S-14B	Soluble	Solid	DI Leach	
890-3636-3	S-19B	Soluble	Solid	DI Leach	
890-3636-4	SW-5A	Soluble	Solid	DI Leach	
MB 880-41929/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41929/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41929/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 42327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3636-1	S-13B	Soluble	Solid	300.0	41929
890-3636-2	S-14B	Soluble	Solid	300.0	41929
890-3636-3	S-19B	Soluble	Solid	300.0	41929
890-3636-4	SW-5A	Soluble	Solid	300.0	41929
MB 880-41929/1-A	Method Blank	Soluble	Solid	300.0	41929
LCS 880-41929/2-A	Lab Control Sample	Soluble	Solid	300.0	41929
LCSD 880-41929/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41929

Lab Chronicle

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Client Sample ID: S-13B

Date Collected: 12/13/22 10:35
Date Received: 12/13/22 12:57

Lab Sample ID: 890-3636-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	42487	12/22/22 10:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42587	12/24/22 18:58	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			42600	12/26/22 15:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42226	12/19/22 15:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	41843	12/14/22 15:35	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42078	12/17/22 20:01	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	41929	12/15/22 14:21	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42327	12/21/22 07:30	CH	EET MID

Client Sample ID: S-14B

Date Collected: 12/13/22 10:40
Date Received: 12/13/22 12:57

Lab Sample ID: 890-3636-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	42487	12/22/22 10:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42587	12/24/22 19:19	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			42600	12/26/22 15:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42226	12/19/22 15:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	41843	12/14/22 15:35	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42078	12/17/22 20:23	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	41929	12/15/22 14:21	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42327	12/21/22 07:37	CH	EET MID

Client Sample ID: S-19B

Date Collected: 12/13/22 10:45
Date Received: 12/13/22 12:57

Lab Sample ID: 890-3636-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	42487	12/22/22 10:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42587	12/24/22 19:39	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			42600	12/26/22 15:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42226	12/19/22 15:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	41843	12/14/22 15:35	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42078	12/17/22 20:44	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	41929	12/15/22 14:21	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42327	12/21/22 07:45	CH	EET MID

Client Sample ID: SW-5A

Date Collected: 12/13/22 10:30
Date Received: 12/13/22 12:57

Lab Sample ID: 890-3636-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	42487	12/22/22 10:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42587	12/24/22 20:00	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			42600	12/26/22 15:56	AJ	EET MID

Lab Chronicle

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Client Sample ID: SW-5A
Date Collected: 12/13/22 10:30
Date Received: 12/13/22 12:57

Lab Sample ID: 890-3636-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			42226	12/19/22 15:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	41843	12/14/22 15:35	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42078	12/17/22 21:06	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	41929	12/15/22 14:21	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42327	12/21/22 07:53	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: R & R Environmental & Reclamation LLC
Project/Site: Uncle Ches TB

Job ID: 890-3636-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3636-1	S-13B	Solid	12/13/22 10:35	12/13/22 12:57	2
890-3636-2	S-14B	Solid	12/13/22 10:40	12/13/22 12:57	7.5
890-3636-3	S-19B	Solid	12/13/22 10:45	12/13/22 12:57	2
890-3636-4	SW-5A	Solid	12/13/22 10:30	12/13/22 12:57	

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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12/27/2022

Project Manager:	Rebecca. Pons	Bill to: (if different)	
Company Name:	R & R Environmental	Company Name:	
Address:	1305 W. Bullock Ave	Address:	
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	
Phone:	Email:		

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Uncle Chas TB	Turn Around	
Project Number:	30000.004	☒ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	12-19-22
Sampler's Name:	A. Perez, J. Cantu	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	Wm005
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	21.4
Total Containers:		Corrected Temperature:	21.2

ANALYSIS REQUEST

Pres. Code

Parameters: Chlorides, TPH, BTEX

890-3636 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Chlorides	TPH	BTEX	Sample Comments
S-13 B	Soil	12-13-22	10:35	2'	Comp	1	X	X	X	Email results
S-14 B	Soil	12-13-22	10:40	7.5'	Comp	1				jwise@rreenvironmental.net
S-19 B	Soil	12-13-22	10:45	2'	Comp	1				rebecca@rreenvironmental.net
SW-5A	Soil	12-13-22	10:30		Comp	1				arto@rreenvironmental.net

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12-13-22 1257	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: R & R Environmental & Reclamation LLC

Job Number: 890-3636-1
SDG Number: Lea County NM

Login Number: 3636
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: R & R Environmental & Reclamation LLC

Job Number: 890-3636-1
SDG Number: Lea County NM

Login Number: 3636
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 12/14/22 12:10 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
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 174966

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 174966
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	2/1/2023