

Incident ID	nAPP2111329254
District RP	
Facility ID	
Application ID	

## 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?	<u>&gt;105'</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

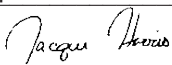
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

State of New Mexico  
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: Jacqui Harris Title: Environmental Coordinator  
Signature:  Date: 8/11/2021  
email: jacqui.harris@conocophillips.com Telephone: (575)745-1807

**OCD Only**

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

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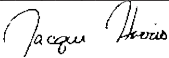
## Closure

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: Jacqui Harris Title: Environmental Coordinator  
Signature:  Date: 8/11/2021  
email: jacqui.harris@conocophillips.com Telephone: (575)745-1807

### OCD Only

Received by: Chad Hensley Date: 11/22/2021

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:  Date: 11/22/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

## Remediation Summary & Soil Closure Request

### COG Operating, LLC Snapback 19 N CTB

Lea County, New Mexico

Unit Letter "N", Section 19, Township 24 South, Range 35 East

Latitude 32.197697 North, Longitude 103.409859 West

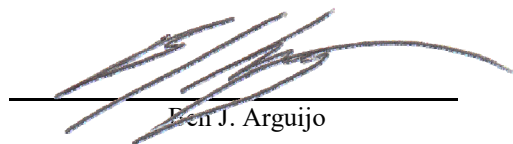
NMOCD Reference No. nAPP2111329254

Prepared By:

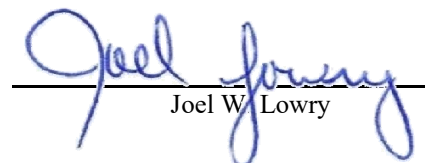
#### Etech Environmental & Safety Solutions, Inc.

2507 79th St., Unit A

Lubbock, Texas 79423-2211



Ben J. Arguijo



Joel W. Lowry



Midland • San Antonio • Lubbock • Hobbs • Lafayette

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## 1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of COG Operating, LLC, has prepared this *Remediation Summary & Soil Closure Request* for the release site known as the Snapback 19 N CTB (henceforth, "Site"). Details of the release are summarized below:

### Location of Release Source

Latitude: 32.197697 Longitude: -103.409859

Provided GPS are in WGS84 format.

Site Name:	Snapback 19 N CTB	Site Type:	Tank Battery
Date Release Discovered:	4/13/2021	API # (if applicable):	N/A

Unit Letter	Section	Township	Range	County
"N"	19	24S	35E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name Quail Ranch, LLC)

### Nature and Volume of Release

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 30	Volume Recovered (bbls) 0
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released	Volume/Weight Recovered

#### Cause of Release:

The fire was caused as water tank was being filled. The water tank ignited, resulting in the fire and release of fluids. No fluids were recovered due to the fire burning off any standing fluid. The release also resulted in a flare fire on the pad.

### Initial Response

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

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

## 2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site.

Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. In addition, on June 17, 2021, an investigative soil boring/temporary monitor well was drilled at the Site in an effort to determine if shallow groundwater is present in the area. The investigative soil bore was advanced to a total depth of approximately 105 feet below ground surface (bgs) and left open for over 72 hours. No indications of inflow and/or accumulation of water were noted during the advancement of the soil bore or prior to plugging and abandonment. The location of the soil bore is depicted in Figure 2. A drilling log is provided in Appendix B.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105'			
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Did the release impact areas not on an exploration, development, production or storage site?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish & Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

## 3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standard for the Site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria**†	Reclamation Standard*‡
>105'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	20,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO+DRO)	EPA SW-846 Method 8015M	1,000	-
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

\* Measured in milligrams per kilogram (mg/kg)

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

## 4.0 INITIAL SITE ASSESSMENT

On April 27, 2021, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores were advanced within the release margins in an effort to determine the vertical extent of impacted soil. In addition, hand-augered soil bores were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of impacted soil. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing olfactory/visual senses and/or concentrations of chloride utilizing a Hach Quantab® chloride test kit.

Based on field observations and field test data, a total of 10 delineation soil samples (CV @ 0-6", CV @ 6-12", NEV @ 0-6", NEV @ 6-12", NWV @ 0-6", NWV @ 1', SEV @ 0-6", SEV @ 6-12", SWV @ 0-6", and SWV @ 6-12") were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and/or chloride. Based on laboratory analytical results, soil was not affected above the NMOCD Closure Criteria beyond one (1) foot bgs.

## 5.0 REMEDIATION ACTIVITIES SUMMARY

On July 13, 2021, remediation activities commenced at the Site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and a Hach Quantab® chloride test kit were utilized to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The floor and sidewalls of the excavation were advanced until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria.

On July 14, 2021, Etech collected 68 confirmation soil samples (NW 1, NW 2, EW 1, EW 2, SW 1, SW 2, WW 1, WW 2, FL 1 @ 3" and through FL 60 @ 3") from the sidewalls and floor of the excavated area. The soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, GRO+DRO, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria in each of the submitted soil samples, with the exceptions of soil samples FL 44 @ 3", FL 45 @ 3", FL 58 @ 3", FL 59 @ 3", and FL 60 @ 3", which exhibited GRO+DRO concentrations ranging from 1,000 mg/kg (FL 45 @ 3") to 1,460 mg/kg (FL 60 @ 3").

On July 16, 2021, the excavation was advanced in the areas characterized by soil samples FL 44 @ 3", FL 45 @ 3", and FL 58 @ 3". Etech collected three (3) confirmation soil samples (FL-44 B, FL-45 B, and FL-58 B) from the floor of the excavated area. The soil samples were submitted to the laboratory for analysis of TPH. Laboratory analytical results indicated GRO+DRO and TPH concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

On July 20, 2021, the excavation was advanced in the areas characterized by soil samples FL 59 @ 3" and FL 60 @ 3". Etech collected two (2) confirmation soil samples (FL-59b and FL-60b) from the floor of the excavated area. The soil samples were submitted to the laboratory for analysis of TPH. Laboratory analytical results indicated GRO+DRO and TPH concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples.

The final dimensions of the excavated area were approximately 122 to 144 feet in length, 33 to 132 feet in width, and three (3) to six (6) inches in depth. During the course of remediation activities, approximately 65 cubic yards of impacted soil was transported to an NMOCD-permitted surface waste facility for disposal.

Soil sample locations and the extent of the excavated area are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. Laboratory analytical reports are provided in Appendix C. General photographs of the Site are provided in Appendix D.



## **6.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN**

The release was limited to the production pad of an active tank battery. Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions and compacted/contoured to meet the needs of the facility. Final remediation, reclamation, and revegetation will be conducted upon decommissioning and abandonment of the tank battery.

## **7.0 SOIL CLOSURE REQUEST**

Remediation activities were conducted in accordance with applicable NMOCD regulations. Impacted soil affected above the NMOCD Closure Criteria was excavated and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate the vertical and horizontal extent of impacted soil was adequately defined, and concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria.

Based on laboratory analytical results and field activities conducted to date, Etech recommends COG Operating, LLC, provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request closure be granted to the Site.

## **8.0 LIMITATIONS**

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary & Soil Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of COG Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or COG Operating, LLC.

## **9.0 DISTRIBUTION**

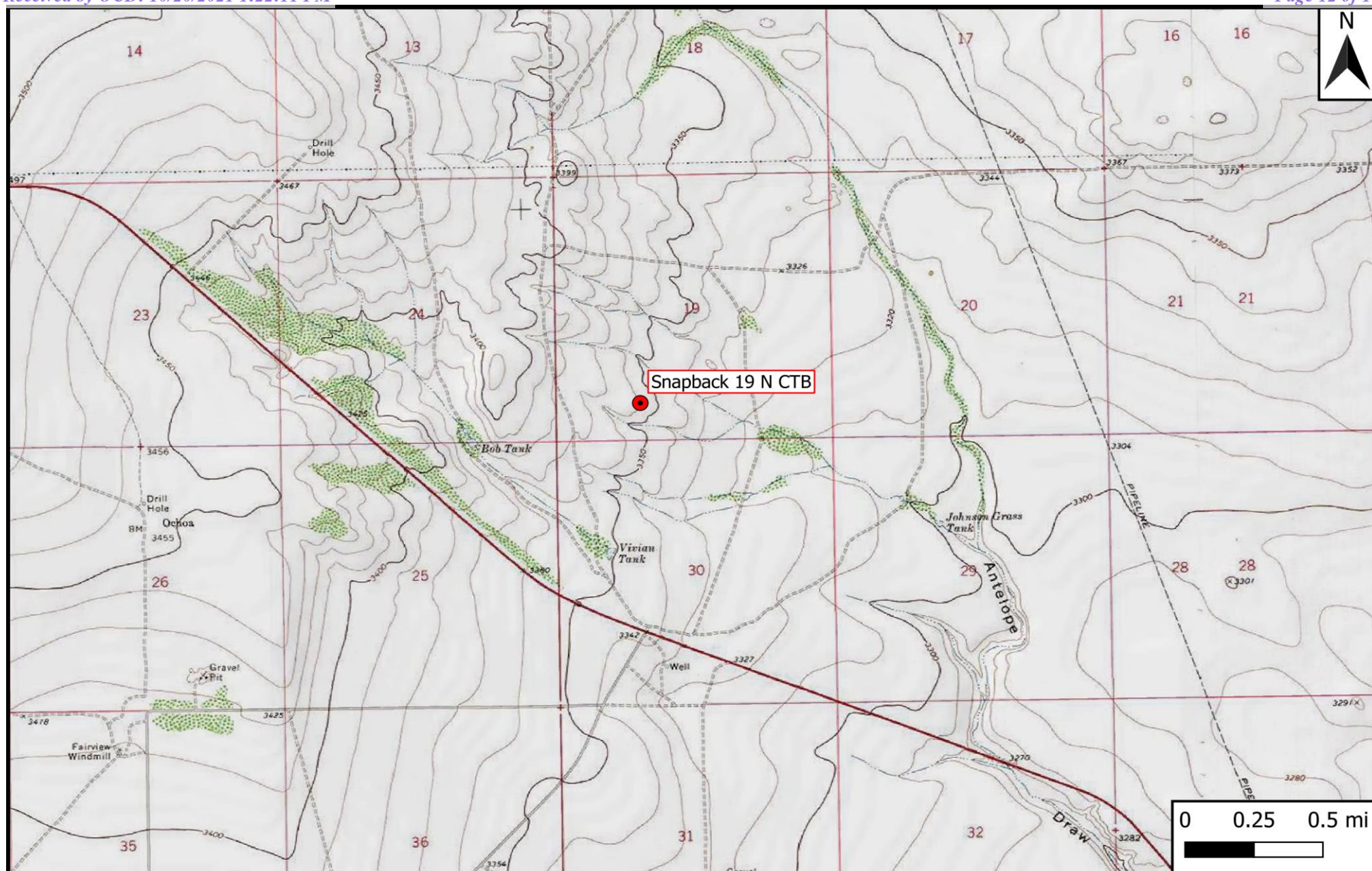
***COG Operating, LLC***  
*600 West Illinois Avenue*  
*Midland, TX 79701*

***New Mexico Energy, Minerals and Natural Resources Department***  
*Oil Conservation Division, District 1*  
*1220 South St. Francis Drive*  
*Santa Fe, NM 87505*

*(Electronic Submission)*

# **Figure 1**

## **Topographic Map**



## Legend

- Site Location

## Figure 1

Topographic Map  
 COG Operating, LLC  
 Snapback 19 N CTB  
 GPS: 32.197697, -103.409859  
 Lea County

**ETECH**  
 Environmental & Safety Solutions, Inc.

Drafted: bja

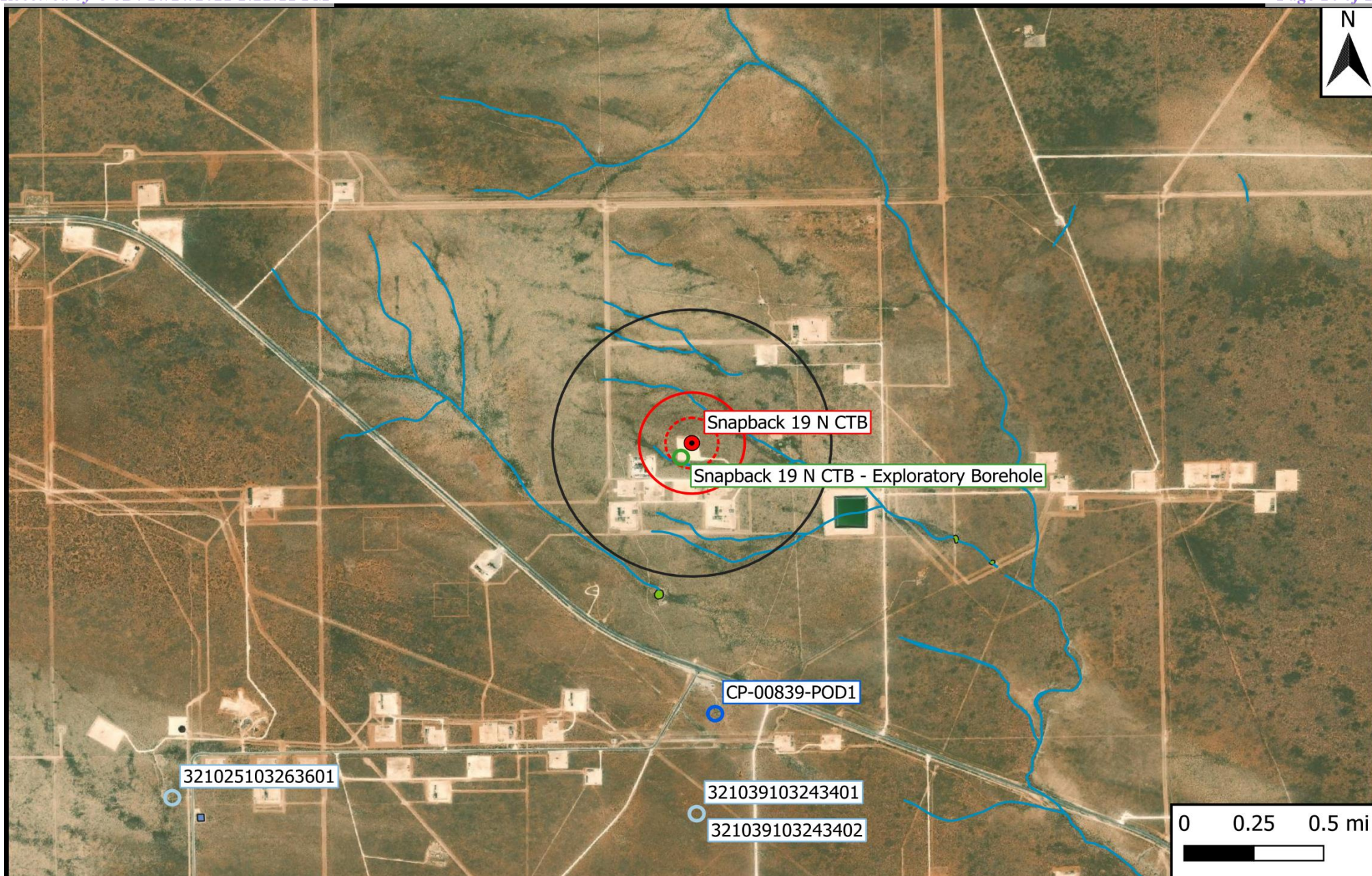
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Date: 7/22/21

## **Figure 2**

### **Aerial Proximity Map**





## Legend

- |   |   |   |
|---|---|---|
| <span style="color: red;">●</span> Site Location                  | <span style="color: blue;">—</span> 1% Annual Flood Chance      | <span style="color: red;">- - -</span> 500-Ft Radius          |
| <span style="color: blue;">●</span> Well - NMOSE                  | <span style="color: green;">■</span> Emergent/Forested Wetlands | <span style="color: red;">- - -</span> 1,000-Ft Radius        |
| <span style="color: lightblue;">●</span> Well - USGS              | <span style="color: darkblue;">■</span> Freshwater Pond/Lake    | <span style="border: 1px solid black;">□</span> 0.5-Mi Radius |
| <span style="color: green;">●</span> Well - Investigative/Monitor | <span style="color: orange;">■</span> Medium/High Karst         |   |
| <span style="color: yellow;">—</span> Potash Mine Workings        | <span style="color: blue;">—</span> Riverine                    |   |

Figure 2

Aerial Proximity Map  
 COG Operating, LLC  
 Snapback 19 N CTB  
 GPS: 32.197697, -103.409859  
 Lea County

**eTECH**  
 Environmental & Safety Solutions, Inc.

Drafted: bja

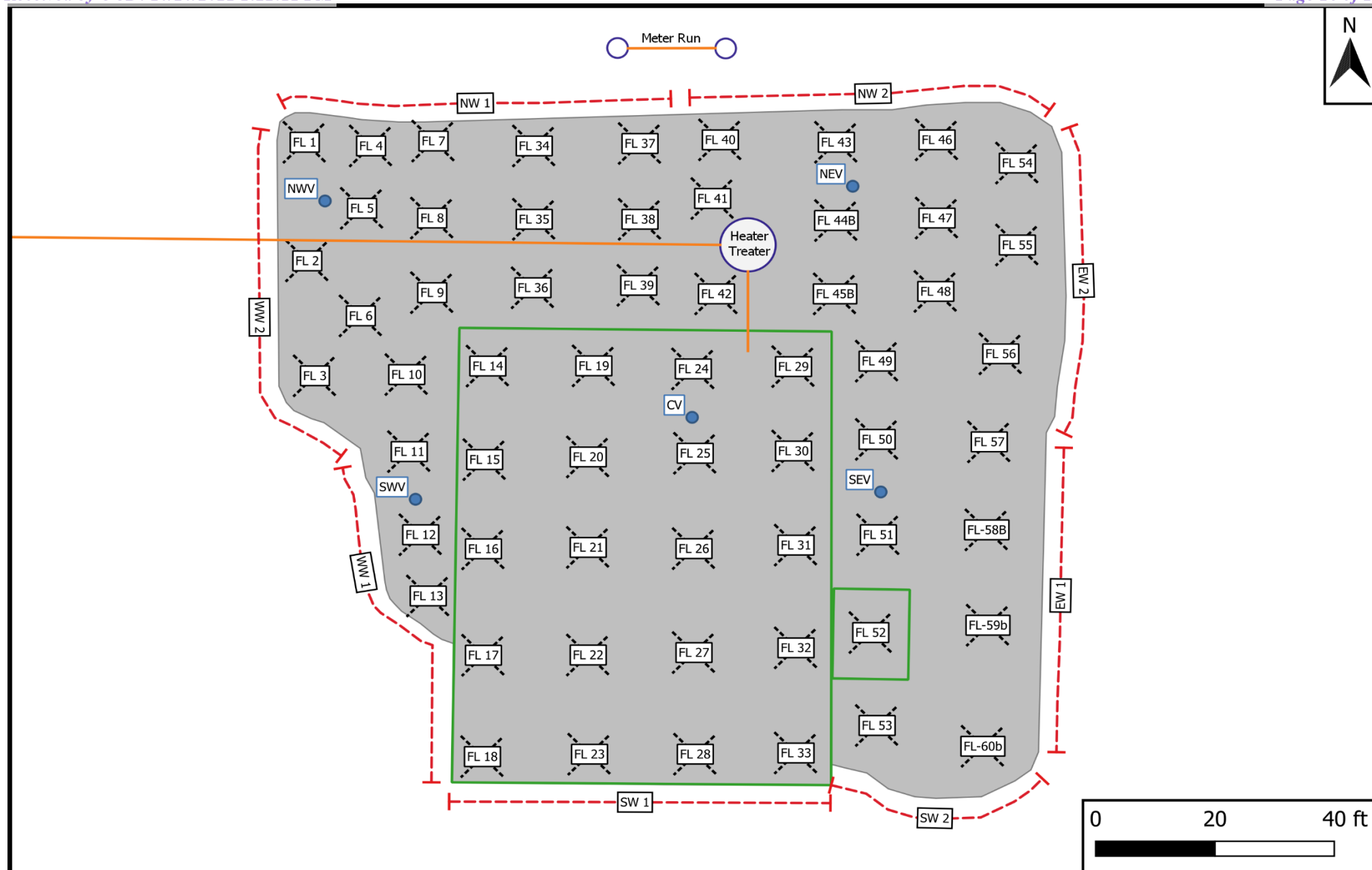
Checked: jwl

Date: 8/6/21



## **Figure 3**

### **Site & Sample Location Map**





**Table 1**  
**Concentrations of BTEX, TPH & Chloride in Soil**

Table 1 Concentrations of BTEX, TPH & Chloride in Soil COG Operating, LLC Snapback 19 N CTB NMOCD Ref. #: nAPP2111329254											
NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
Delineation Samples											
CV @ 0-6"	4/27/2021	0 - 0.5	Excavated	<0.050	<0.300	<10.0	81.7	81.7	<10.0	81.7	29,000
CV @ 6-12"	4/27/2021	0.5 - 1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	8,260
NEV @ 0-6"	4/27/2021	0 - 0.5	Excavated	<0.050	<0.300	<50.0	9,520	9,520	1,830	11,400	24,800
NEV @ 6-12"	4/27/2021	0.5 - 1	In-Situ	<0.050	<0.300	<10.0	654	654	93.8	748	4,560
NWV @ 0-6"	4/27/2021	0 - 0.5	Excavated	<0.050	0.360	<50.0	27,300	27,300	6,860	34,200	19,200
NWV @ 1'	4/27/2021	1	In-Situ	<0.050	<0.300	<10.0	27.9	27.9	<10.0	27.9	96.0
SEV @ 0-6"	4/27/2021	0 - 0.5	Excavated	<0.050	<0.300	<50.0	10,400	10,400	1,930	12,300	25,200
SEV @ 6-12"	4/27/2021	0.5 - 1	In-Situ	<0.050	<0.300	<10.0	94.2	94.2	<10.0	94.2	3,040
SWV @ 0-6"	4/27/2021	0 - 0.5	Excavated	<0.050	<0.300	<10.0	1,940	1,940	599	2,540	4,280
SWV @ 6-12"	4/27/2021	0.5 - 1	In-Situ	<0.050	<0.300	<10.0	156	156	15.7	172	1,960
Excavation Samples											
NW 1	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
NW 2	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	97.8	97.8	<10.0	97.8	240
EW 1	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
EW 2	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
SW 1	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW 2	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
WW 1	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	30.5	30.5	<10.0	30.5	48.0
WW 2	7/14/2021	0 - 0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 1 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	163	163	49.9	213	240
FL 2 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	205	205	68.8	274	304
FL 3 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	201	201	73.1	274	240
FL 4 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	184	184	63.5	248	512
FL 5 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	219	219	80.0	299	288
FL 6 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	259	259	93.1	352	256
FL 7 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	138	138	52.9	191	304
FL 8 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	243	243	92.0	335	336
FL 9 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	181	181	58.0	239	368
FL 10 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	232	232	85.4	317	400
FL 11 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	255	255	106	361	336
FL 12 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	269	269	119	388	400
FL 13 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	197	197	38.0	235	320
FL 14 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
FL 15 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	10.6	10.6	<10.0	10.6	64.0
FL 16 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	581	581	454	1,040	80.0
FL 17 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	178	178	149	327	112
FL 18 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 19 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 20 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	213	213	127	340	64.0
FL 21 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	178	178	57.1	235	64.0

Dash (-): Sample not analyzed for that constituent.

**Bold:** NMOCD Closure Criteria exceedance.**Red:** NMOCD Reclamation Standard exceedance.

**Table 1**  
**Concentrations of BTEX, TPH & Chloride in Soil**  
**COG Operating, LLC**  
**Snapback 19 N CTB**  
**NMOCD Ref. #: nAPP2111329254**

NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
FL 22 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	109	109	25.7	135	64.0
FL 23 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	180	180	60.6	241	48.0
FL 24 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	33.1	33.1	<10.0	33.1	48.0
FL 25 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	399	399	193	592	64.0
FL 26 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	39.8	39.8	21.9	61.7	32.0
FL 27 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FL 28 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 29 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL 30 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FL 31 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 32 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FL 33 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	550	550	278	828	64.0
FL 34 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	569	569	155	724	704
FL 35 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	963	963	235	1,200	1,040
FL 36 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	951	951	250	1,200	832
FL 37 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	739	739	206	945	976
FL 38 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	680	680	184	864	768
FL 39 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	818	818	204	1,020	912
FL 40 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	675	675	180	855	736
FL 41 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	650	650	246	896	800
FL 42 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	769	769	203	972	672
FL 43 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	950	950	241	1,190	704
FL 44 @ 3"	7/14/2021	0.25	Excavated	<0.050	<0.300	<10.0	1,180	<b>1,180</b>	280	1,460	1,010
FL-44 B	7/16/2021	0.5	In-Situ	-	-	<10.0	16.0	16.0	<10.0	16.0	-
FL 45 @ 3"	7/14/2021	0.25	Excavated	<0.050	<0.300	<10.0	1,000	<b>1,000</b>	259	1,260	848
FL-45 B	7/16/2021	0.5	In-Situ	-	-	<10.0	179	179	69.0	248	-
FL 46 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	953	953	227	1,180	784
FL 47 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	893	893	361	1,250	688
FL 48 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	218	218	89.2	307	240
FL 49 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	178	178	36.3	214	272
FL 50 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	203	203	75.6	279	272
FL 51 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	182	182	65.2	247	256
FL 52 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	224	224	85.4	309	256
FL 53 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	221	221	75.0	296	336
FL 54 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	241	241	83.6	325	336
FL 55 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	301	301	141	442	352
FL 56 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	264	264	109	373	240
FL 57 @ 3"	7/14/2021	0.25	In-Situ	<0.050	<0.300	<10.0	374	374	141	515	304
FL 58 @ 3"	7/14/2021	0.25	Excavated	<0.050	<0.300	<10.0	1,360	<b>1,360</b>	610	1,970	624
FL-58 B	7/16/2021	0.5	In-Situ	-	-	<10.0	16.7	16.7	<10.0	16.7	-
FL 59 @ 3"	7/14/2021	0.25	Excavated	<0.050	<0.300	<10.0	1,260	<b>1,260</b>	571	1,830	672

Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

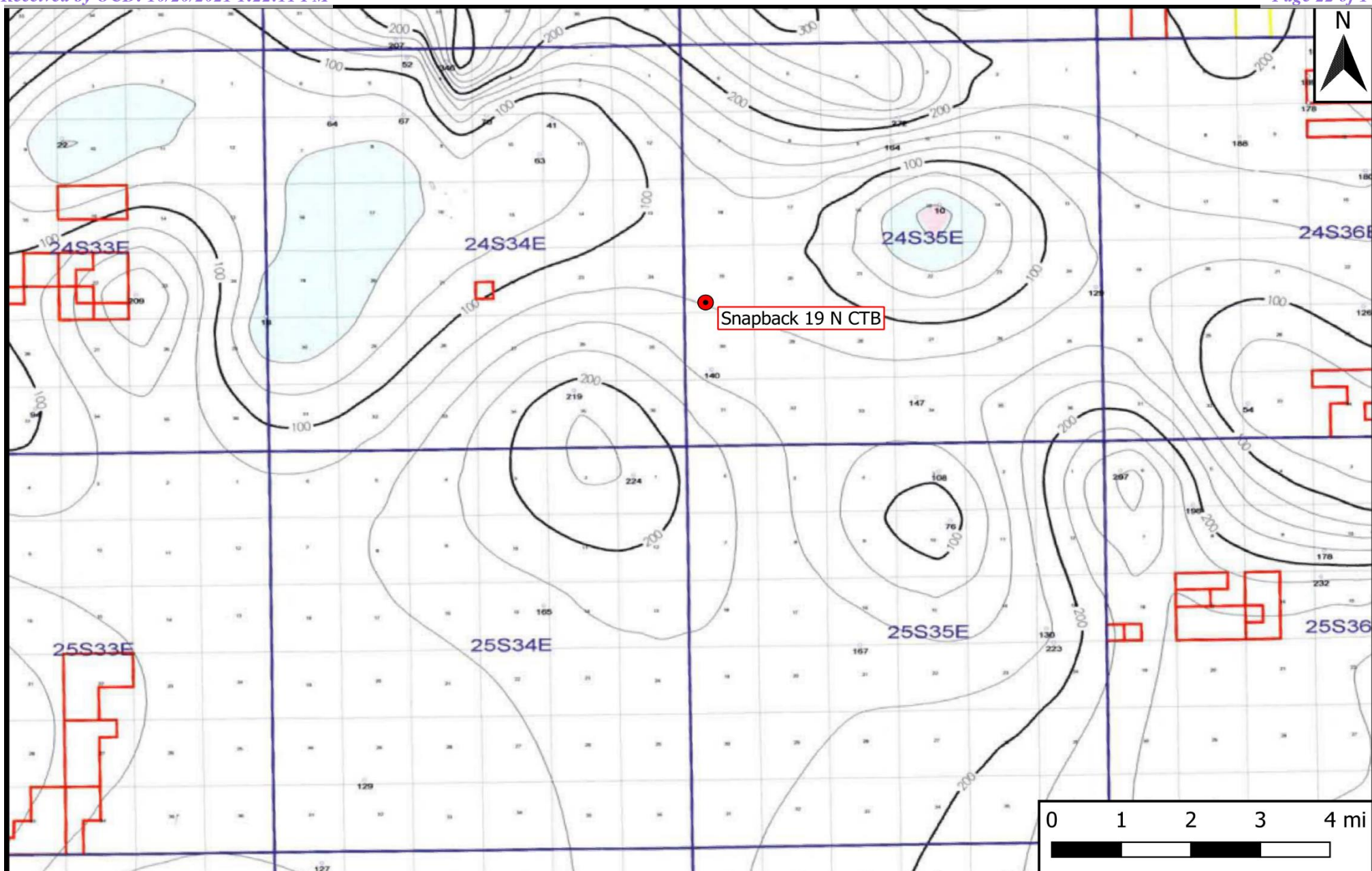
<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>COG Operating, LLC</b> <b>Snapback 19 N CTB</b> <b>NMOCD Ref. #: nAPP2111329254</b>											
NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
FL-59b	7/20/2021	0.5	In-Situ	-	-	<10.0	26.9	26.9	<10.0	26.9	-
FL 60 @ 3"	7/14/2021	0.25	Excavated	<0.050	<0.300	<10.0	1,460	<b>1,460</b>	679	2,140	720
FL-60b	7/20/2021	0.5	In-Situ	-	-	<10.0	156	156	61.8	218	-

Dash (-): Sample not analyzed for that constituent.

**Bold:** NMOCD Closure Criteria exceedance.**Red:** NMOCD Reclamation Standard exceedance.

## **Appendix A**

### **Depth to Groundwater Information**



## Legend

● Site Location

## Figure 4

Inferred Depth to Groundwater Trend Map  
 COG Operating, LLC  
 Snapback 19 N CTB  
 GPS: 32.197697, -103.409859  
 Lea County

**eTECH**  
 Environmental & Safety Solutions, Inc.

Drafted: bja

Checked: jwl

Date: 7/22/21



# 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	DepthWell	DepthWater	Water Column
<a href="#">CP 00839 POD1</a>		CP	LE	4	3	30	24S	35E		650017	3561833*	1630	175		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

**Record Count:** 1

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 649882.52

**Northing (Y):** 3563457.66

**Radius:** 2415

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/5/21 3:14 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
	CP 00839 POD1	4	3	30	24S	35E	650017	3561833*	

x

**Driller License:** 122 **Driller Company:** UNKNOWN

**Driller Name:** OTIS PRUIT

<b>Drill Start Date:</b>	<b>Drill Finish Date:</b>	01/01/1963	<b>Plug Date:</b>
<b>Log File Date:</b>	<b>PCW Rcv Date:</b>		<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b> 9 GPM
<b>Casing Size:</b> 6.00	<b>Depth Well:</b> 175 feet		<b>Depth Water:</b>

x

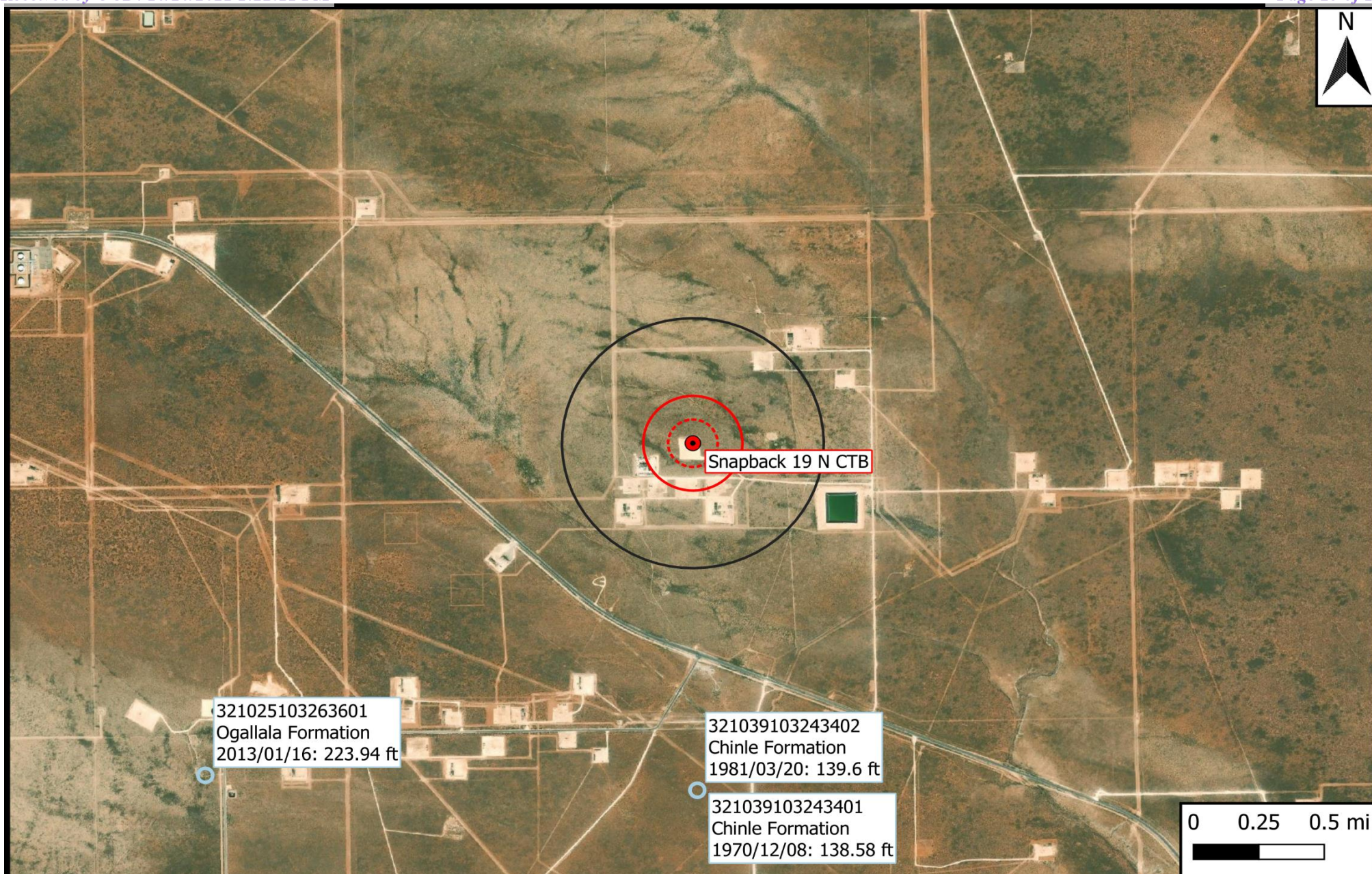
\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/23/21 7:46 AM

POINT OF DIVERSION SUMMARY





## Legend

- Site Location
- Well - USGS
- ⋯ 500 Ft Radius
- ▭ 1000 Ft Radius
- ▭ 0.5 Mi Radius

## Figure 5

USGS Well Proximity Map  
COG Operating, LLC  
Snapback 19 N CTB  
GPS: 32.197697, -103.409859  
Lea County

**eTECH**  
Environmental & Safety Solutions, Inc.

Drafted: bja

Checked: jwl

Date: 7/22/21





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USGS Water Resources

Data Category:  Geographic Area:

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### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 321025103263601

Minimum number of levels = 1

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### USGS 321025103263601 24S.34E.35.12411

Lea County, New Mexico

Latitude 32°10'44.0", Longitude 103°26'31.2" NAD83

Land-surface elevation 3,409.00 feet above NGVD29

The depth of the well is 257 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1953-03-29			D	72019	223.90			1	Z		A
1971-01-13			D	72019	218.04			1	Z		A
1976-01-15			D	72019	219.06			1	Z		A
1981-03-20			D	72019	217.71			1	Z		A
1986-03-06			D	72019	223.50			1	Z		A
1991-05-31			D	72019	219.18			1	Z		A

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1996-03-14			D	72019	219.19		1	S			A
2013-01-16	22:00 UTC	m	72019	223.94			1	S	USGS	S	A

## Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-08-05 17:08:03 EDT

0.46 0.3 nadww01





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### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 321039103243401

Minimum number of levels = 1

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### USGS 321039103243401 24S.35E.30.34233

Lea County, New Mexico

Latitude 32°10'39", Longitude 103°24'34" NAD27

Land-surface elevation 3,343 feet above NAVD88

The depth of the well is 176 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1953-11-27			D	72019	139.56			1	Z		A
1965-11-02			D	72019	140.99			1	Z		A
1968-06-12			D	72019	140.52			1	Z		A
1970-12-08			D	72019	138.58			1	Z		A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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0.29 0.25 nadww01





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### Search Results -- 1 sites found

Agency code = usgs

site\_no list = 

- 321039103243402

Minimum number of levels = 1

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### USGS 321039103243402 24S.35E.30.342331

Lea County, New Mexico

Latitude 32°10'39", Longitude 103°24'34" NAD27

Land-surface elevation 3,343 feet above NAVD88

The depth of the well is 176 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1970-12-08			D 72019	139.81			1	Z			A
1976-01-15			D 72019	139.18			1	Z			A
1981-03-20			D 72019	139.60			1	Z			A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-08-05 17:10:19 EDT

0.28 0.24 nadww01



## **Appendix B**

### **Field Data & Soil Profile Logs**



## Date:

4/27/20

Project Number:

14062

Latitude:

32.197697

Longitude:

-103.409859

Sample Point = SP #1 @ ## etc

**Floor = FL #1 etc**

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

**Soil Intended to be Deferred = SP #1 @ 4' In-Situ**

Resamples= SP #1 @ 5b or SW #1b

**Stockpile = Stockpile #1**

### GPS Sample Points, Center of Comp Areas



7/14/21

Project Number: 14062      Latitude: 32.197697      Longitude: -103.409859

**GPS Sample Points, Center of Comp Areas**


**NTG**  
 ENVIRONMENTAL

Project Name :	<u>Snapback Fed N CTB</u>	Date :	<u>Thursday, June 17, 2021</u>
Project No. :	<u>214308</u>	Sampler :	<u>Clint Merritt</u>
Location :	<u>Lea County, New Mexico</u>	Driller :	<u>Scarborough Drilling</u>
Coordinates :	<u>32.19693, -103.41054</u>	Method :	<u>Air Rotary</u>
Elevation :	<u>3,373</u>		

Depth (ft.)	WL	Soil Description	Lithology	Depth (ft.)	WL	Soil Description	Lithology
0		(0') - Yellowish orange, coarse very loose sand, w/caliche (GM). Dry		50		(50') - Yellowish orange med. soft sand w/ 25% poorly cemented sub rounded fine gravel fragments (SM). Dry	
5		(5') - Yellowish orange, coarse very loose sand, w/caliche (GM). Dry		55			
10		(10') - Yellowish orange, med. loose sand (GC). Dry		60		(60') - Light gray fine, very loose sand (SM). Dry	
15				65			
20		(20') - Yellowish orange fine gravel, w/ >50% well cemented, sub rounded gravel (GP). Dry		70		(60') - Light gray fine, very loose sand (SM). Dry	
25				75			
30		(30') - Yellowish orange, fine very loose sand (SM). Dry		80		(80') - Light brown, very soft clay (ML). Dry	
35				85			
40		(40') - Light gray med. Loose sand (SM). Dry		90		(90') - Light brown, very soft clay (ML). Dry	
45		(41') - Yellowish orange, fine gravel w/ >50% well cemented sub rounded gravel (GP). Dry		95			
50				100		(100') - Light brown, med. stiff clay w/15% fine sand (CL). Dry	

Comments :

Total Depth 105' bgs  
 Drilling Terminated @ 12:15 (CT) No Groundwater Present  
 On 6/21/2021 No groundwater Present

(20') - Drill bit on top of natural rock formation  
 (40') - Drill bit on top of natural rock formation

## **Appendix C**

### **Laboratory Analytical Reports**



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

April 29, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: SNAPBACK 19 N CTB

Enclosed are the results of analyses for samples received by the laboratory on 04/27/21 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NWV @ 0-6" (H211080-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
<b>Total Xylenes*</b>	<b>0.360</b>	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
<b>Total BTX</b>	<b>0.360</b>	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>19200</b>	16.0	04/29/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<50.0	50.0	04/29/2021	ND	228	114	200	1.69		
<b>DRO &gt;C10-C28*</b>	<b>27300</b>	50.0	04/29/2021	ND	200	99.8	200	2.02		
<b>EXT DRO &gt;C28-C36</b>	<b>6860</b>	50.0	04/29/2021	ND						

Surrogate: 1-Chlorooctane 104 % 44.3-133

Surrogate: 1-Chlorooctadecane 1020 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NWV @ 1' (H211080-02)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19		
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533		
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67		
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45		
Total BTEx	<0.300	0.300	04/29/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/29/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	27.9	10.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 92.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 90.7 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NEV @ 0-6" (H211080-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTEx	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	24800	16.0	04/29/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	9520	50.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	1830	50.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 86.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 388 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: NEV @ 6-12" (H211080-04)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTX	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4560	16.0	04/29/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	654	10.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	93.8	10.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 85.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 104 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SEV @ 0-6" (H211080-05)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTEx	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	25200	16.0	04/29/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	10400	50.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	1930	50.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 86.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 402 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SEV @ 6-12" (H211080-06)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTEx	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.3 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3040	16.0	04/29/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	94.2	10.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 90.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 93.2 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SWV @ 0-6" (H211080-07)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTEx	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4280	16.0	04/29/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	1940	10.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	599	10.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 79.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 144 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SWV @ 6-12" (H211080-08)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTEx	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1960	16.0	04/29/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	156	10.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	15.7	10.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 87.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 94.5 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CV @ 0-6" (H211080-09)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTEx	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.2 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	29000	16.0	04/29/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	81.7	10.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 88.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 90.9 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 04/27/2021  
 Reported: 04/29/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 04/27/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CV @ 6-12" (H211080-10)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2021	ND	1.93	96.6	2.00	2.19	
Toluene*	<0.050	0.050	04/29/2021	ND	2.12	106	2.00	0.533	
Ethylbenzene*	<0.050	0.050	04/29/2021	ND	2.17	109	2.00	2.67	
Total Xylenes*	<0.150	0.150	04/29/2021	ND	6.23	104	6.00	2.45	
Total BTX	<0.300	0.300	04/29/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8260	16.0	04/29/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/29/2021	ND	228	114	200	1.69	
DRO >C10-C28*	<10.0	10.0	04/29/2021	ND	200	99.8	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	04/29/2021	ND					

Surrogate: 1-Chlorooctane 89.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 86.7 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

**ARDINAL LABORATORIES**

**101 East Marland, Hobbs, NM 88240**

**(575) 393-2326 FAX (575) 393-2476**

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																																							
Project Manager: Joel Lowry				P.O. #:				<div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div>																																							
Address: P.O. Box 301				Company COG																																											
City: Lovington State: NM Zip: 88260				Attn: Jacqui Harris																																											
Phone #: (575) 396-2378 Fax #: (575) 396-1429				Address:																																											
Project #: 14062 Project Owner: COG				City:																																											
Project Name: Snapback 19 N CTB				State: Zip:																																											
Project Location: Rural Lea County, NM				Phone #:																																											
Sampler Name: Matthew Grieco				Fax #:																																											
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME																			
H211080				G		1						X										X				4/27/21				X		X		X													
1		NWV @ 0-6"		G		1						X										X				4/27/21				X		X		X													
2		NWV @ 1'		G		1						X										X				4/27/21				X		X		X													
3		NEV @ 0-6"		G		1						X										X				4/27/21				X		X		X													
4		NEV @ 6-12"		G		1						X										X				4/27/21				X		X		X													
5		SEV @ 0-6"		G		1						X										X				4/27/21				X		X		X													
6		SEV @ 6-12"		G		1						X										X				4/27/21				X		X		X													
7		SWV @ 0-6"		G		1						X										X				4/27/21				X		X		X													
8		SWV @ 6-12"		G		1						X										X				4/27/21				X		X		X													
9		CV @ 0-6"		G		1						X										X				4/27/21				X		X		X													
10		CV @ 6-12"		G		1						X										X				4/27/21				X		X		X													
<p>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</p>																																															
Relinquished By:				Date: 4-27-21				Received By:				Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No				Add'l Phone #:																															
				Time: 1440								Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No				Add'l Fax #:																															
Relinquished By:				Date:				Received By:				REMARKS:																																			
				Time:																																											
Delivered By: (Circle One)				Sample Condition				CHECKED BY:				Please email results to pm@etechenv.com																																			
Sampler - UPS - Bus - Other:				Cool Intact				(Initials)																																							
4.9c #113				<input type="checkbox"/> Yes <input type="checkbox"/> No				TO																																							



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July 15, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: SNAPBACK 19 N CTB

Enclosed are the results of analyses for samples received by the laboratory on 07/14/21 17:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 1 @ 3" (H211829-01)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/14/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.27	105	6.00	3.84	
Total BTEx	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	163	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	49.9	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 86.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 104 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 2 @ 3" (H211829-02)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2021	ND	2.00	99.8	2.00	3.98		
Toluene*	<0.050	0.050	07/14/2021	ND	2.14	107	2.00	3.94		
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.09	105	2.00	4.18		
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.27	105	6.00	3.84		
Total BTEx	<0.300	0.300	07/14/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	205	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	68.8	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 99.4 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 3 @ 3" (H211829-03)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/14/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	201	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	73.1	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 93.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 110 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 4 @ 3" (H211829-04)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/14/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	184	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	63.5	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 93.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 109 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 5 @ 3" (H211829-05)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/14/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	219	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	80.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 91.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 110 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 6 @ 3" (H211829-06)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/14/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	259	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	93.1	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 109 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 7 @ 3" (H211829-07)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	2.00	99.8	2.00	3.98		
Toluene*	<0.050	0.050	07/15/2021	ND	2.14	107	2.00	3.94		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	105	2.00	4.18		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.27	105	6.00	3.84		
Total BTEx	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	138	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	52.9	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 87.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 103 % 38.9-142

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 8 @ 3" (H211829-08)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/15/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	243	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	92.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 88.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 107 % 38.9-142

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 JOEL LOWRY  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 9 @ 3" (H211829-09)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/15/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	181	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	58.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 102 % 38.9-142

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 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 10 @ 3" (H211829-10)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/15/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	232	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	85.4	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 92.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 113 % 38.9-142

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Received: 07/14/2021  
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 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 11 @ 3" (H211829-11)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	2.00	99.8	2.00	3.98		
Toluene*	<0.050	0.050	07/15/2021	ND	2.14	107	2.00	3.94		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	105	2.00	4.18		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.27	105	6.00	3.84		
Total BTEx	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	255	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	106	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 85.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 107 % 38.9-142

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Received: 07/14/2021  
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 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 12 @ 3" (H211829-12)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/15/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	269	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	119	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 88.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 112 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 13 @ 3" (H211829-13)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.00	99.8	2.00	3.98	
Toluene*	<0.050	0.050	07/15/2021	ND	2.14	107	2.00	3.94	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	105	2.00	4.18	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.27	105	6.00	3.84	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	197	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	38.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 88.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 106 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 14 @ 3" (H211829-14)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 84.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 93.1 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 15 @ 3" (H211829-15)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10		
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83		
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91		
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02		
Total BTX	<0.300	0.300	07/14/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	10.6	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 98.6 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 16 @ 3" (H211829-16)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/15/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	581	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	454	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 86.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 105 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 17 @ 3" (H211829-17)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	178	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	149	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 91.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 110 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 18 @ 3" (H211829-18)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 95.4 % 38.9-142

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**Analytical Results For:**

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 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 19 @ 3" (H211829-19)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/15/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 92.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 101 % 38.9-142

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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 20 @ 3" (H211829-20)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	198	98.8	200	8.99	
DRO >C10-C28*	213	10.0	07/15/2021	ND	206	103	200	3.22	
EXT DRO >C28-C36	127	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 84.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 97.2 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 21 @ 3" (H211829-21)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	178	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	57.1	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 80.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 104 % 38.9-142

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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 22 @ 3" (H211829-22)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10		
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83		
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91		
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02		
Total BTEX	<0.300	0.300	07/14/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	109	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	25.7	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 78.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 93.5 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 23 @ 3" (H211829-23)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	180	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	60.6	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 84.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 103 % 38.9-142

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 24 @ 3" (H211829-24)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	33.1	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	<10.0	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 83.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 95.6 % 38.9-142

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 25 @ 3" (H211829-25)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	399	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	193	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 86.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 118 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 26 @ 3" (H211829-26)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/15/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	39.8	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	21.9	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 82.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 92.8 % 38.9-142

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 JOEL LOWRY  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 27 @ 3" (H211829-27)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/15/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	<10.0	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	<10.0	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 77.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 87.9 % 38.9-142

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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 28 @ 3" (H211829-28)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/15/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	<10.0	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	<10.0	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 84.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 93.2 % 38.9-142

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 JOEL LOWRY  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 29 @ 3" (H211829-29)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	<10.0	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	<10.0	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 81.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 89.8 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 30 @ 3" (H211829-30)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2021	ND	210	105	200	15.0	
DRO >C10-C28*	<10.0	10.0	07/14/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	<10.0	10.0	07/14/2021	ND					

Surrogate: 1-Chlorooctane 79.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 87.9 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 31 @ 3" (H211829-31)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/14/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/14/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/14/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 81.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 89.7 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 32 @ 3" (H211829-32)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/15/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 91.8 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 33 @ 3" (H211829-33)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.07	104	2.00	4.10	
Toluene*	<0.050	0.050	07/15/2021	ND	2.11	105	2.00	5.83	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.07	103	2.00	4.91	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.30	105	6.00	4.02	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	550	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	278	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 81.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 99.2 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 34 @ 3" (H211829-34)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	569	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	155	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 84.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 116 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 35 @ 3" (H211829-35)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1040	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	963	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	235	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 80.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 111 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 36 @ 3" (H211829-36)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	832	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	951	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	250	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 85.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 128 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 37 @ 3" (H211829-37)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32		
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00		
Total BTEx	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	739	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	206	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 87.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 134 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 38 @ 3" (H211829-38)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	768	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	680	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	184	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 78.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 112 % 38.9-142

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 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 39 @ 3" (H211829-39)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	818	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	204	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 120 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 40 @ 3" (H211829-40)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	210	105	200	15.0	
DRO >C10-C28*	675	10.0	07/15/2021	ND	205	102	200	4.93	
EXT DRO >C28-C36	180	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 81.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 112 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 41 @ 3" (H211829-41)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	650	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	246	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 84.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 101 % 38.9-142

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 42 @ 3" (H211829-42)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	769	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	203	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 121 % 38.9-142

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Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 43 @ 3" (H211829-43)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	07/15/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	950	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	241	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 76.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 120 % 38.9-142

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 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 44 @ 3" (H211829-44)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	1180	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	280	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 136 % 38.9-142

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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 45 @ 3" (H211829-45)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	1000	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	259	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 85.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 123 % 38.9-142

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 46 @ 3" (H211829-46)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	953	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	227	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 82.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 124 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 47 @ 3" (H211829-47)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	893	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	361	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 102 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 48 @ 3" (H211829-48)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32		
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/15/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	218	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	89.2	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 98.3 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 49 @ 3" (H211829-49)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	178	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	36.3	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 88.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 102 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 50 @ 3" (H211829-50)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	203	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	75.6	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 85.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 110 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 51 @ 3" (H211829-51)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTEx	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	182	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	65.2	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 79.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 94.5 % 38.9-142

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Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 52 @ 3" (H211829-52)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	224	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	85.4	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 84.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 99.3 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 53 @ 3" (H211829-53)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	2.08	104	2.00	6.32	
Toluene*	<0.050	0.050	07/15/2021	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	2.09	104	2.00	7.40	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	6.34	106	6.00	9.00	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	221	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	75.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 90.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 105 % 38.9-142

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 54 @ 3" (H211829-54)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	241	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	83.6	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 87.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 109 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 55 @ 3" (H211829-55)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	301	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	141	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 90.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 109 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 56 @ 3" (H211829-56)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46	
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	264	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	109	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 92.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 110 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 57 @ 3" (H211829-57)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	197	98.5	200	3.87	
DRO >C10-C28*	374	10.0	07/15/2021	ND	205	102	200	5.24	
EXT DRO >C28-C36	141	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 87.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 101 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 58 @ 3" (H211829-58)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46	
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	199	99.6	200	4.02	
DRO >C10-C28*	1360	10.0	07/15/2021	ND	207	103	200	3.21	
EXT DRO >C28-C36	610	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 71.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 109 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 59 @ 3" (H211829-59)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	199	99.6	200	4.02	
DRO >C10-C28*	1260	10.0	07/15/2021	ND	207	103	200	3.21	
EXT DRO >C28-C36	571	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 74.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 105 % 38.9-142

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**Analytical Results For:**

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 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: FL 60 @ 3" (H211829-60)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	199	99.6	200	4.02	
DRO >C10-C28*	1460	10.0	07/15/2021	ND	207	103	200	3.21	
EXT DRO >C28-C36	679	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 70.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 108 % 38.9-142

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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: NW 1 (H211829-61)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTEx	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 79.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 87.8 % 38.9-142

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**Analytical Results For:**

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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: NW 2 (H211829-62)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTEx	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	97.8	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 77.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 90.5 % 38.9-142

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 JOEL LOWRY  
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 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EW 1 (H211829-63)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46	
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 71.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 79.0 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EW 2 (H211829-64)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	07/15/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 70.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 77.9 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: SW 1 (H211829-65)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 83.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 91.4 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: SW 2 (H211829-66)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTX	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 71.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 79.4 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: WW 1 (H211829-67)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46		
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86		
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19		
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06		
Total BTEx	<0.300	0.300	07/15/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	30.5	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 76.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 85.0 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/14/2021  
 Reported: 07/15/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/14/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: WW 2 (H211829-68)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2021	ND	1.89	94.7	2.00	1.46	
Toluene*	<0.050	0.050	07/15/2021	ND	2.01	101	2.00	1.86	
Ethylbenzene*	<0.050	0.050	07/15/2021	ND	1.97	98.3	2.00	1.19	
Total Xylenes*	<0.150	0.150	07/15/2021	ND	5.92	98.7	6.00	1.06	
Total BTX	<0.300	0.300	07/15/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/15/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2021	ND	209	104	200	17.7	
DRO >C10-C28*	<10.0	10.0	07/15/2021	ND	204	102	200	0.167	
EXT DRO >C28-C36	<10.0	10.0	07/15/2021	ND					

Surrogate: 1-Chlorooctane 81.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 90.4 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager





# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>Etech Environmental</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																				
Project Manager: <u>Joel Lowry</u>				P.O. #:																								
Address: <u>3100 Plains Hwy</u>				Company: <u>COG</u>																								
City: <u>Lawton</u> State: <u>NM</u> Zip: <u>88260</u>				Attn:																								
Phone #: <u>575-396-2378</u> Fax #:				Address:																								
Project #: <u>14062</u> Project Owner: <u>COG</u>				City:																								
Project Name: <u>Snapback 19 N CTB</u>				State: Zip:																								
Project Location: <u>Rural Lea County, NM</u>				Phone #:																								
Sampler Name: <u>Miguel Ruminer</u>				Fax #:																								
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME														
<u>H211829</u>																												
<u>1</u>	<u>FL1 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>Chloride</u>	<u>BTEX</u>	<u>PAH</u>										
<u>2</u>	<u>FL2 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>3</u>	<u>FL3 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>4</u>	<u>FL4 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>5</u>	<u>FL5 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>6</u>	<u>FL6 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>7</u>	<u>FL7 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>8</u>	<u>FL8 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>9</u>	<u>FL9 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										
<u>10</u>	<u>FL10 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>			<u>X</u>	<u>X</u>	<u>X</u>										

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Relinquished By: <u>[Signature]</u>	Date: <u>7/14/21</u> Time: <u>17:00</u>	Received By: <u>Jodi Henson</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) <u>33.12</u> <u>#113</u>			REMARKS: <u>Rush samples taken &amp; brought directly to lab.</u>	
Sampler - UPS - Bus - Other:			CHECKED BY: <u>[Signature]</u>	
Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>			Email: <u>pm@etechenv.com</u>	








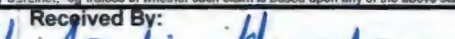



**101 East Marland, Hobbs, NM 88240**  
**(575) 393-2326 FAX (575) 393-2476**

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>Etech Environmental</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>															
Project Manager: <b>Joel Lowry</b>				P.O. #:																			
Address: <b>3100 Plains Hwy</b>				Company: <b>COG</b>																			
City: <b>Livingston</b> State: <b>NM</b> Zip: <b>88260</b>				Attn:																			
Phone #: <b>575 316-2328</b> Fax #:				Address:																			
Project #: <b>14062</b> Project Owner: <b>COG</b>				City:																			
Project Name: <b>Snaphack 19NCTB</b>				State: Zip:																			
Project Location: <b>Pyra Lea county</b>				Phone #:																			
Sampler Name: <b>Miguel Ramirez</b>				Fax #:																			
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING													
Lab I.D.	Sample I.D.	(GRAB OR C/COMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL												
<b>H211829</b>																							
<b>21</b>	<b>FL 21 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>22</b>	<b>FL 22 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>23</b>	<b>FL 23 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>24</b>	<b>FL 24 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>25</b>	<b>FL 25 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>26</b>	<b>FL 26 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>27</b>	<b>FL 27 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>28</b>	<b>FL 28 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>29</b>	<b>FL 29 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										
<b>30</b>	<b>FL 30 @ 3"</b>	<b>C</b>	<b>1</b>			<b>X</b>				<b>X</b>			<b>7/14/21</b>										

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Relinquished By: 		Date: 7/14/21	Received By: 		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: 7:00					All Results are emailed. Please provide Email address:	
Relinquished By:		Date:	Received By:		REMARKS:	
Time:						
Delivered By: (Circle One)	Observed Temp. °C 33.1	Sample Condition	CHECKED BY:	Turnaround Time:	Standard <input type="checkbox"/>	Bacteria (only) <input checked="" type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool <input type="checkbox"/> Intact <input type="checkbox"/>	(Initials)		Rush <input checked="" type="checkbox"/>	Cool <input type="checkbox"/> Intact <input type="checkbox"/>
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Thermometer ID #113 - Correction Factor None		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
						Observed Temp. °C
						Corrected Temp. °C

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Company Name: <u>Etech Environmental</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>															
Project Manager: <u>Bob Lowry</u>				P.O. #:																			
Address: <u>3100 Plains Hwy</u>				Company: <u>COG</u>																			
City: <u>Lovington</u> State: <u>NM</u> Zip: <u>87760</u>				Attn:																			
Phone #: <u>575-396-2378</u> Fax #:				Address:																			
Project #: <u>14062</u> Project Owner: <u>COG</u>				City:																			
Project Name: <u>Engelback 19 NCTB</u>				State: Zip:																			
Project Location: <u>Esra Lea County, NM</u>				Phone #:																			
Sampler Name: <u>Miguel Ramirez</u>				Fax #:																			
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING													
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chlorides BTEX TPH								
<u>HZ11829</u>													<u>7/14/21</u>										
<u>31</u>	<u>FL 31 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>					<u>X</u>	<u>X</u>	<u>X</u>						
<u>32</u>	<u>FL 32 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>33</u>	<u>FL 33 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>34</u>	<u>FL 34 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>35</u>	<u>FL 35 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>36</u>	<u>FL 36 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>37</u>	<u>FL 37 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>38</u>	<u>FL 38 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>39</u>	<u>FL 39 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													
<u>40</u>	<u>FL 40 @ 3"</u>	<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>													

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Relinquished By: <u>[Signature]</u>		Date: <u>7/14/21</u>		Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <u>17:00</u>						All Results are emailed. Please provide Email address:	
Relinquished By: <u>[Signature]</u>		Date:		Received By:		REMARKS:	
Time:							
Delivered By: (Circle One)		Observed Temp. °C <u>33.1</u>		Sample Condition		CHECKED BY: <u>[Signature]</u>	
Cool Intact				Cool Intact		Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> <u>Rush</u> <input type="checkbox"/>	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Bacteria (only) Sample Condition	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Thermometer ID #113		Cool Intact Observed Temp. °C	
				Correction Factor None		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
						Corrected Temp. °C	

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>Etech Environmental</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>													
Project Manager: <u>Joel Lowry</u>				P.O. #:																	
Address: <u>3100 Plains Hwy</u>				Company: <u>COG</u>																	
City: <u>LOVINGTON</u> State: <u>NM</u> Zip: <u>88260</u>				Attn:																	
Phone #: <u>575-396-2372</u> Fax #:				Address:																	
Project #: <u>14062</u> Project Owner: <u>COG</u>				City:																	
Project Name: <u>SNAPBACK 19 NCTB</u>				State: Zip:																	
Project Location: <u>Rural Lea County, NM</u>				Phone #:																	
Sampler Name: <u>Miguel Ramirez</u>				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.		Sample I.D.		(G/RAB OR (C)OMP. # CONTAINERS		MATRIX		PRESERV.		SAMPLING											
						GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		ACID/BASE ICE/COOL OTHER:		DATE		TIME									
<u>H21829</u>																					
<u>41</u>		<u>FL 41 @ 3"</u>		<u>✓</u>		<u>X</u>		<u>X</u>		<u>11/17/21</u>				<u>X</u>		<u>X</u>		<u>X</u>			
<u>42</u>		<u>FL 42 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>43</u>		<u>FL 43 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>44</u>		<u>FL 44 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>45</u>		<u>FL 45 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>46</u>		<u>FL 46 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>47</u>		<u>FL 47 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>48</u>		<u>FL 48 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>49</u>		<u>FL 49 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			
<u>50</u>		<u>FL 50 @ 3"</u>		<u>✓</u>										<u>✓</u>		<u>✓</u>		<u>✓</u>			

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Relinquished By: <u>[Signature]</u>		Date: <u>11/14/21</u>		Received By: <u>Jodi Benson</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <u>11:00</u>		Time: <u>11:00</u>		Time: <u>11:00</u>		All Results are emailed. Please provide Email address:	
Relinquished By: <u>[Signature]</u>		Date: <u>11/14/21</u>		Received By: <u>Jodi Benson</u>		REMARKS:	
Time: <u>11:00</u>		Time: <u>11:00</u>		Time: <u>11:00</u>			
Delivered By: (Circle One)		Observed Temp. °C <u>33.1</u>		Sample Condition		Turnaround Time: <u>Standard</u> <input type="checkbox"/> <u>Rush</u> <input checked="" type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Bacteria (only) Sample Condition	
				Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Cool Intact Observed Temp. °C	
				Thermometer ID: #113		Cool Intact Observed Temp. °C	
				Correction Factor None		Cool Intact Observed Temp. °C	

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Company Name: <u>Ejeh Environmental</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>														
Project Manager: <u>Joy Lowry</u>				P.O. #:																		
Address: <u>3100 Plains Hwy</u>				Company: <u>COG</u>																		
City: <u>Lovington</u> State: <u>NM</u> Zip: <u>88260</u>				Attn:																		
Phone #: <u>575-396-8378</u> Fax #:				Address:																		
Project #: <u>14062</u> Project Owner: <u>COG</u>				City:																		
Project Name: <u>Snapback 19 NC9B</u>				State: Zip:																		
Project Location: <u>Rural Lea county, NM</u>				Phone #:																		
Sampler Name: <u>Miguel Ramirez</u>				Fax #:																		
FOR LAB USE ONLY																						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX		PRESERV.		SAMPLING														
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE	ICE / COOL	OTHER:	DATE	TIME								
<u>H211829</u>																						
<u>51</u>	<u>FL 51 @ 3"</u>	<u>✓</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/21</u>									
<u>52</u>	<u>FL 52 @ 3"</u>																					
<u>53</u>	<u>FL 53 @ 3"</u>																					
<u>54</u>	<u>FL 54 @ 3"</u>																					
<u>55</u>	<u>FL 55 @ 3"</u>																					
<u>56</u>	<u>FL 56 @ 3"</u>																					
<u>57</u>	<u>FL 57 @ 3"</u>																					
<u>58</u>	<u>FL 58 @ 3"</u>																					
<u>59</u>	<u>FL 59 @ 3"</u>																					
<u>60</u>	<u>FL 60 @ 3"</u>																					

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Relinquished By: <u>[Signature]</u>	Date: <u>7/14/21</u>	Received By: <u>Jodi Benson</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
	Time: <u>7:00</u>		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One)	Observed Temp. °C <u>33.1</u>	Sample Condition Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/>	CHECKED BY: <u>[Signature]</u>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Turnaround Time: <b>Standard</b> <input type="checkbox"/> <b>Rush</b> <input checked="" type="checkbox"/>
			Bacteria (only) Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/>
			Observed Temp. °C
			Corrected Temp. °C

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Company Name: <u>Etech Environmental</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																			
Project Manager: <u>Joel Lowry</u>				P.O. #:																							
Address: <u>3109 Plains Hwy</u>				Company: <u>COG</u>																							
City: <u>Edgington</u> State: <u>NM</u> Zip: <u>87260</u>				Attn:																							
Phone #: <u>575-396-2378</u> Fax #:				Address:																							
Project #: <u>14062</u> Project Owner: <u>COG</u>				City:																							
Project Name: <u>snagback 19 N CTB</u>				State: Zip:																							
Project Location: <u>Rural Lea County, NM</u>				Phone #:																							
Sampler Name: <u>Maged Elmir</u>				Fax #:																							
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																	
Lab I.D.	Sample I.D.	(G/RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME													
<u>H211829</u>																											
<u>601</u>	<u>NW1</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>7/14/11</u>		<u>Chlorides</u>	<u>BTEX</u>	<u>TPH</u>										
<u>602</u>	<u>NW2</u>																										
<u>603</u>	<u>EW1</u>																										
<u>604</u>	<u>EW2</u>																										
<u>605</u>	<u>SW1</u>																										
<u>606</u>	<u>SW2</u>																										
<u>607</u>	<u>WW1</u>																										
<u>608</u>	<u>WW2</u>																										

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Relinquished By: <u>[Signature]</u>	Date: <u>7/14/21</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Time: <u>17:00</u>			All Results are emailed. Please provide Email address:
Relinquished By: <u>[Signature]</u>	Date:	Received By:	REMARKS:
Time:			
Delivered By: (Circle One)	Observed Temp. °C <u>33.1</u>	Sample Condition	CHECKED BY: <u>[Signature]</u>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Turnaround Time: <b>Standard</b> <input type="checkbox"/> <b>Rush</b> <input checked="" type="checkbox"/>
			Bacteria (only) Sample Condition
			Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No
			Observed Temp. °C
			Thermometer ID #113
			Correction Factor None
			Corrected Temp. °C

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

July 19, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: SNAP BACK FED

Enclosed are the results of analyses for samples received by the laboratory on 07/16/21 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	07/16/2021	Sampling Date:	07/16/2021
Reported:	07/19/2021	Sampling Type:	Soil
Project Name:	SNAP BACK FED	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	COP- LEA CO., NM		

**Sample ID: FL - 45 B (H211861-01)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2021	ND	217	109	200	1.37	
<b>DRO &gt;C10-C28*</b>	<b>179</b>	10.0	07/19/2021	ND	218	109	200	0.502	
<b>EXT DRO &gt;C28-C36</b>	<b>69.0</b>	10.0	07/19/2021	ND					
<hr/>									
Surrogate: 1-Chlorooctane	91.8 %	44.3-133							
Surrogate: 1-Chlorooctadecane	96.7 %	38.9-142							

**Sample ID: FL - 58 B (H211861-02)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2021	ND	217	109	200	1.37	
<b>DRO &gt;C10-C28*</b>	<b>16.7</b>	10.0	07/19/2021	ND	218	109	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	07/19/2021	ND					
<hr/>									
Surrogate: 1-Chlorooctane	88.6 %	44.3-133							
Surrogate: 1-Chlorooctadecane	86.5 %	38.9-142							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/16/2021  
 Reported: 07/19/2021  
 Project Name: SNAP BACK FED  
 Project Number: NONE GIVEN  
 Project Location: COP- LEA CO., NM

Sampling Date: 07/16/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: FL - 44 B (H211861-03)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/19/2021	ND	217	109	200	1.37	
<b>DRO &gt;C10-C28*</b>	<b>16.0</b>	10.0	07/19/2021	ND	218	109	200	0.502	
EXT DRO >C28-C36	<10.0	10.0	07/19/2021	ND					
<hr/>									
Surrogate: 1-Chlorooctane	86.1 %	44.3-133							
Surrogate: 1-Chlorooctadecane	85.4 %	38.9-142							

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

---

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

*RUSH!!*

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 5 of 5

Company Name: <i>Concho</i>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>													
Project Manager: <i>Joel Lowry</i>				P.O. #: <i>CO6</i>																	
Address:				Company:																	
City:		State:		Zip:		Attn: <i>Sacqui Harris</i>															
Phone #:		Fax #:		Address:																	
Project #:		Project Owner:		City:																	
Project Name: <i>Snip Back Fed</i>				State:      Zip:																	
Project Location: <i>Rural Lon</i>				Phone #:																	
Sampler Name: <i>Joel Lowry</i>				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.		Sample I.D.		G/RAB OR (C)COMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING									
								GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		ACID/BASE: ICE / COOL OTHER:		DATE      TIME									
<i>H211861</i>				<i>6</i>		<i>1</i>															
<i>1</i>		<i>FL-456</i>										<i>7/16/21</i> <i>3:00</i>		<i>X</i>							
<i>2</i>		<i>FL-586</i>										<i>7/16/21</i> <i>3:05</i>		<i>X</i>							
<i>3</i>		<i>FL-446</i>										<i>7/16/21</i> <i>3:15</i>		<i>X</i>							

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or any persons arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>Joel Lowry</i>		Date: <i>7/16/21</i>		Received By: <i>Jodi Benson</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Time: <i>4:00</i>		Received By:		All Results are emailed. Please provide Email address:	
Date:		Time:		REMARKS:			
Delivered By: (Circle One)		Observed Temp. °C <i>5.6</i>		Sample Condition		Turnaround Time: <b>Standard</b> <input type="checkbox"/> <b>Rush</b> <input checked="" type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Bacteria (only) Sample Condition	
				CHECKED BY: <i>JH</i>		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	
						Observed Temp. °C	
						Corrected Temp. °C	
						Thermometer ID #113	
						Correction Factor None	

FORM-000 R 3.1 06/04/20

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



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---

July 21, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: SNAPBACK 19 N CTB

Enclosed are the results of analyses for samples received by the laboratory on 07/20/21 15:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received: 07/20/2021  
 Reported: 07/21/2021  
 Project Name: SNAPBACK 19 N CTB  
 Project Number: 14062  
 Project Location: COG - LEA COUNTY NM

Sampling Date: 07/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FL -59b (H211898-01)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/21/2021	ND	219	110	200	14.5	
<b>DRO &gt;C10-C28*</b>	<b>26.9</b>	10.0	07/21/2021	ND	213	107	200	14.1	
EXT DRO >C28-C36	<10.0	10.0	07/21/2021	ND					
<hr/>									
Surrogate: 1-Chlorooctane	97.4 %	44.3-133							
Surrogate: 1-Chlorooctadecane	92.4 %	38.9-142							

**Sample ID: FL -60b (H211898-02)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/21/2021	ND	219	110	200	14.5	
<b>DRO &gt;C10-C28*</b>	<b>156</b>	10.0	07/21/2021	ND	213	107	200	14.1	
<b>EXT DRO &gt;C28-C36</b>	<b>61.8</b>	10.0	07/21/2021	ND					
<hr/>									
Surrogate: 1-Chlorooctane	91.6 %	44.3-133							
Surrogate: 1-Chlorooctadecane	93.5 %	38.9-142							

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



## ARDINAL LABORATORIES

**101 East Marland, Hobbs, NM 88240**

**(575) 393-2326 FAX (575) 393-2476**

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Rush!

Page 4 of 4

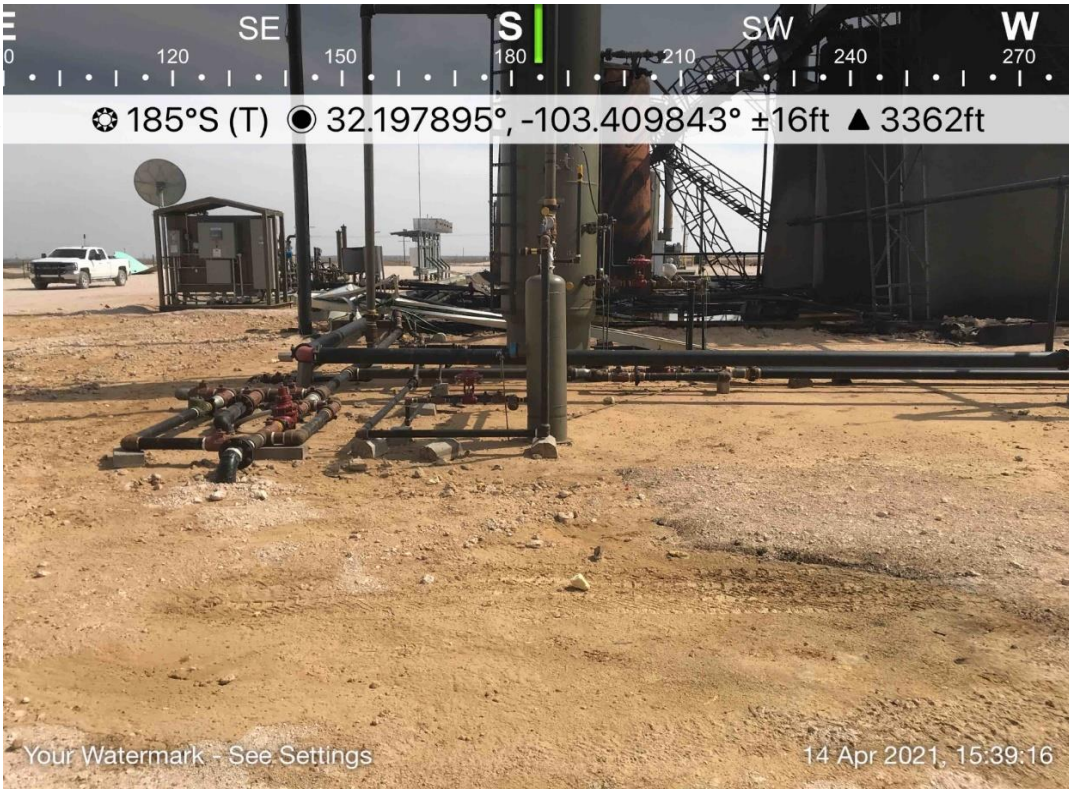
[illegible]

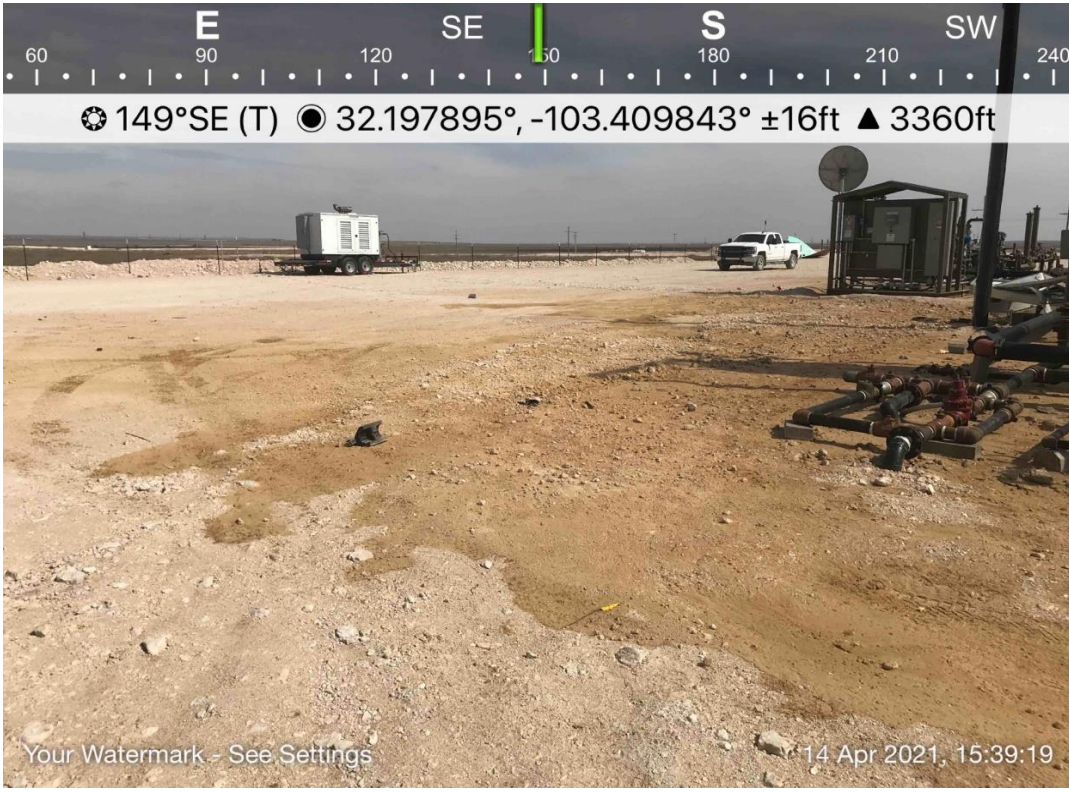
## **Appendix D**

### **Photographic Log**



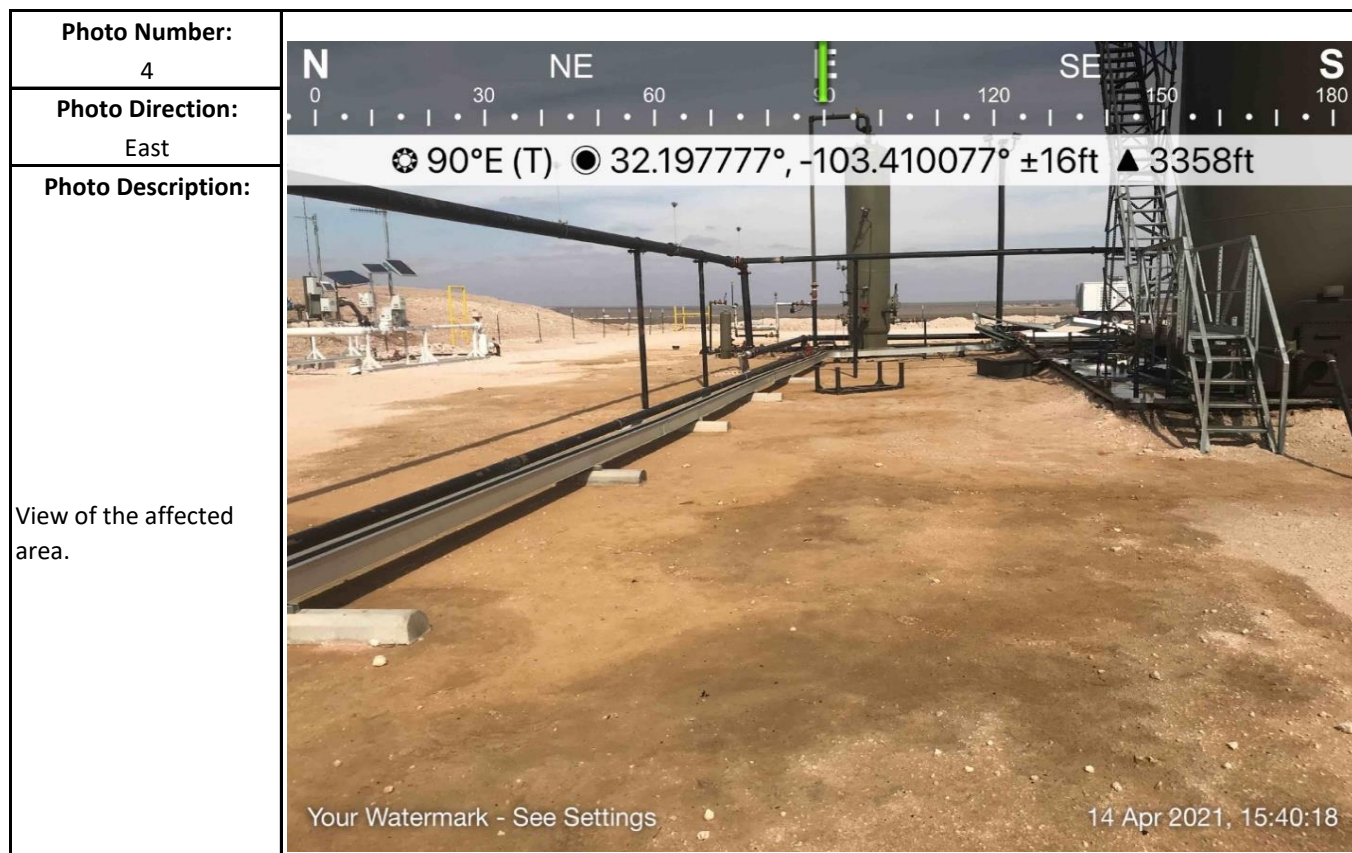
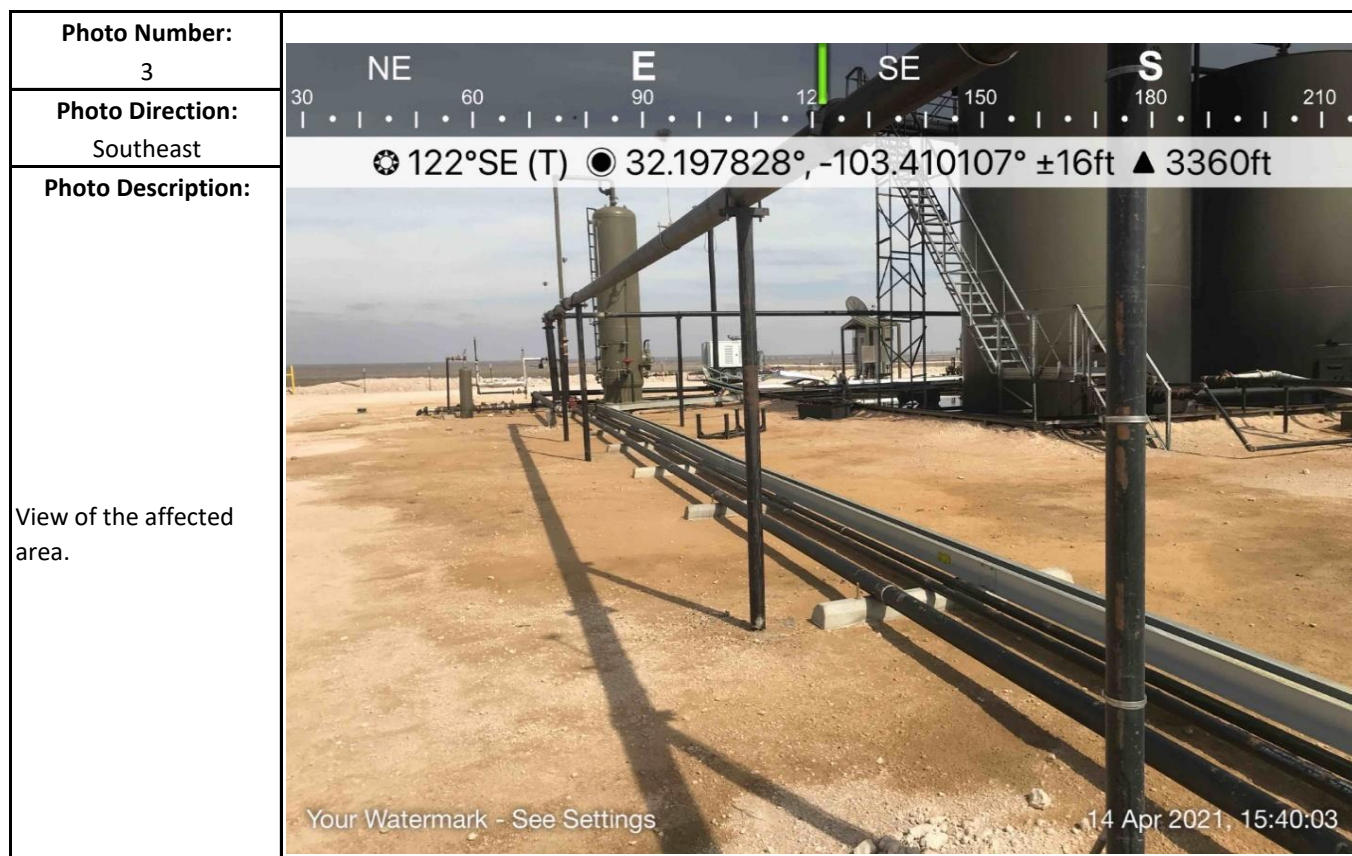
## Photographic Log

<b>Photo Number:</b> 1	
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 2	
<b>Photo Direction:</b> Southeast	
<b>Photo Description:</b>  View of the affected area.	



## Photographic Log



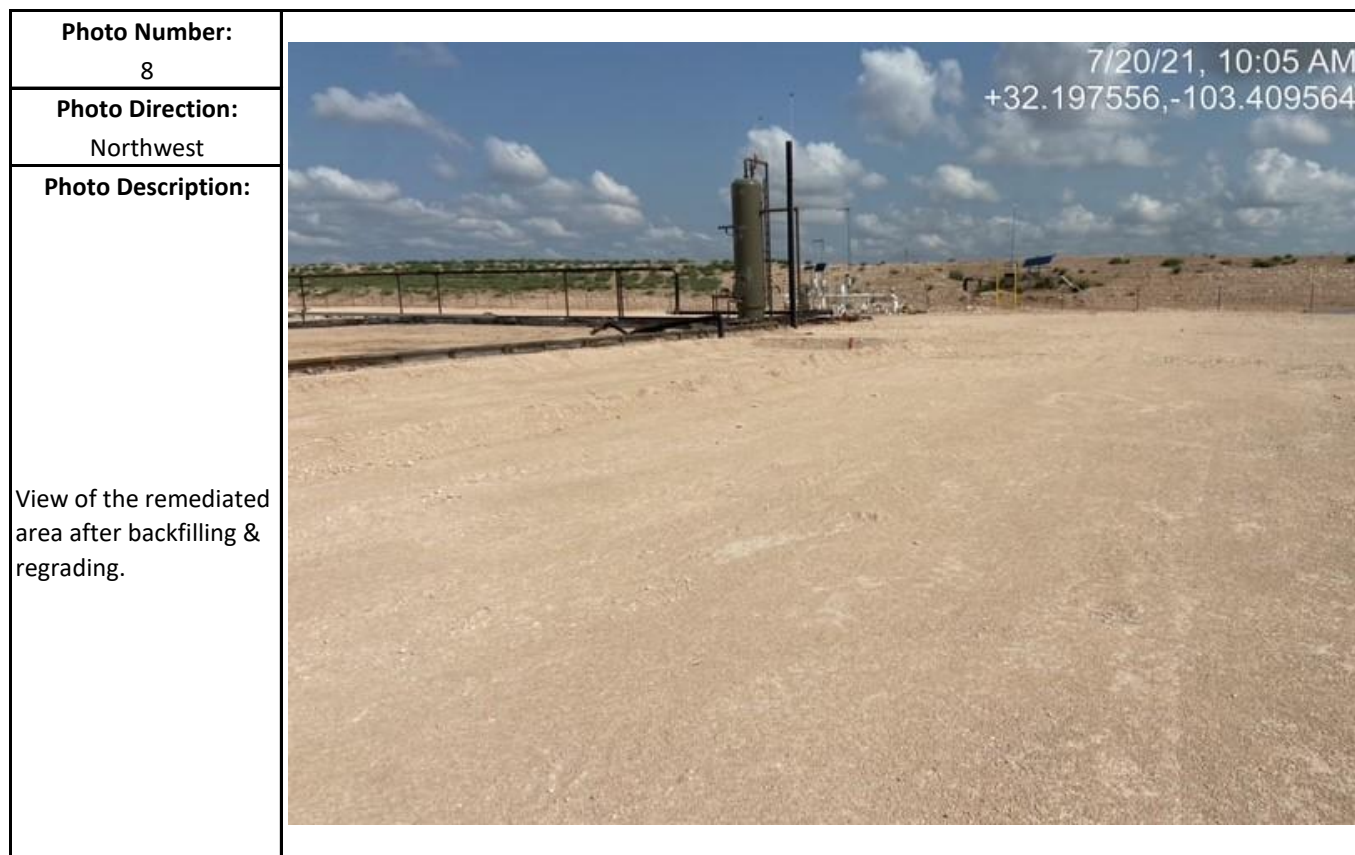


## Photographic Log





## Photographic Log



## Photographic Log

<b>Photo Number:</b> 9	 <p>7/20/21, 10:05 AM +32.197556,-103.409564</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the remediated area after backfilling & regrading.	

<b>Photo Number:</b> 10	 <p>7/20/21, 10:05 AM +32.197608,-103.409927</p>
<b>Photo Direction:</b> West	
<b>Photo Description:</b>  View of the remediated area after backfilling & regrading.	

**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 57045

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 57045
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	11/22/2021