

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	nAPP2325138536
District RP	
Facility ID	fAPP2319950894
Application ID	

## Release Notification

### Responsible Party

Responsible Party Earthstone Operating, LLC	OGRID 331165
Contact Name Chris Martin	Contact Telephone 432-253-9998 Ext. 2653
Contact email cmartin@earthstoneenergy.com	Incident # (assigned by OCD) nAPP2325138536
Contact mailing address 600 N. Marienfeld, Suite 1000, Midland, TX 79701	

### Location of Release Source

Latitude 32.657505 Longitude -103.610938  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Panama 13 Fed Battery	Site Type Well Pad
Date Release Discovered 8/25/23	API# (if applicable)

Unit Letter	Section	Township	Range	County
I	13	19S	33E	Lea

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

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 7	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)


Cause of Release Bottom of heater treater had leak in vessel

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<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p>	

## Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Rebecca Haskell</u>	Title: <u>Senior Project Manager</u>
Signature: <u></u>	Date: <u>9/08/2023</u>
email: <u>bhaskell@ntglobal.com</u>	Telephone: <u>432-766-1918</u>
<b><u>OCD Only</u></b>	
Received by: <u>Shelly Wells</u>	Date: <u>9/8/2023</u>

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## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>Unknown</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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

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Incident ID	nAPP2325138536
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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: Rebecca HaskellTitle: Senior Project ManagerSignature: Rebecca HaskellDate: 11/17/2023Email: bhaskell@ntglobal.comTelephone: 432-766-1918**OCD Only**Received by: Shelly WellsDate: 11/20/2023

Incident ID	nAPP2325138536
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## Remediation Plan

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

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

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

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

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

Printed Name: Rebecca Haskell Title: Senior Project Manager  
Signature: Rebecca Haskell Date: 11/17/2023  
email: bhaskell@ntglobal.com Telephone: 432-766-1918

**OCD Only**

Received by: Shelly Wells Date: 11/20/2023

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

Signature: Nelson Velez Date: 03/11/2024

Incident ID	nAPP2325138536
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Facility ID	fAPP2319950894
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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: Rebecca Haskell

Title: Senior Project Manager

Signature: Rebecca Haskell

Date: 11/17/2023

email: bhaskell@ntglobal.com

Telephone: 432-766-1918

**OCD Only**

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

Date: \_\_\_\_\_

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: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_



701 Tradewinds Blvd  
Midland, Texas 79707  
Tel. 432-766-1918  
www.ntgenvironmental.com

November 17, 2023

Mike Bratcher  
District Supervisor  
Oil Conservation Division, District 1  
1625 N. French Drive  
Hobbs, New Mexico 88240

**Re: Site Characterization and Closure/Deferral Request  
Panama 13 Fed Battery  
Earthstone Operating, LLC  
Site Location: Unit I, S13, T19S, R33E  
(Lat 32.657505°, Long -103.610938°)  
Lea County, New Mexico  
Incident ID: nAPP2325138536**

## 1. Introduction

On behalf of Earthstone Operating, LLC (Earthstone), New Tech Global Environmental, LLC (NTGE), has prepared this Site Characterization and Closure/Deferral Request for the NMOCD District 1 Office in Hobbs, New Mexico for documentation of site assessment, remedial action activities, and analysis at the Panama 13 Fed Battery (Site). The Site is located within Unit Letter I, Section 13 of Township 19 South and Range 33 East in Lea County, New Mexico. The GPS coordinates for the release site are 32.657505° N latitude and -103.610938° W Longitude. The release occurred on land managed by the Bureau of Land Management (BLM). Figure 1 and 2 depict the site location.

## 2. Background

Based on the Release Notification C-141 Form, the release occurred on August 25, 2023, due to a leak at the bottom of the heater treater. Approximately one (1) barrel (bbl) of crude oil and seven (7) barrels (bbls) of produced water were released, of which none was recovered. Upon discovery, the heater treater was shut-in, and the area secured. The release area is depicted on Figure 3. The Release Notification, Site Assessment/Characterization, Remediation Plan, and Closure portions of Form C-141 for incident number nAPP2325138536 are attached to the front of this report.

## 3. Groundwater and Site Characterization

Based on a review of the New Mexico Office of State Engineers (NMOSE) and USGS databases, there are no known water sources and or features within a ½-mile radius of the location. No other receptors (playas, wetlands, waterways, lakebeds, or ordinance boundaries) are located within each specific boundary or distance from the Site. According to the Site Characterization map the site is located within a low Karst area.

Mr. Mike Bratcher  
November 17, 2023  
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The Site characterization documentation (NM Oil and Gas Map, Points of Diversion, Significant Watercourse Map, Wetlands Map, and FEMA Map) are provided in Attachment A.

NTGE characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, from New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12).

**General Site Characterization and Groundwater:**

Site Characterization	Average Groundwater Depth (ft)
Low Karst	Unknown

**Table 3.1 Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29.12)**

Regulatory Standard	Chloride	TPH (GRO+DRO+MRO)	TPH (GRO+DRO)	BTEX	Benzene
19.15.29.12 NMAC Table I Closure Criteria for Soils Impacted by a Release	600 mg/kg	100 mg/kg	---	50 mg/kg	10 mg/kg
Notes: --- = not defined					

## 4. Initial Soil Delineation Activities and Analytical Results

On August 29 & 30, 2023, NTGE conducted an initial delineation assessment to document details related to the release. During the site visit NTGE collected three (3) vertical sample points (V-1 through V-3) based on six (6) inch intervals from depths ranging from zero (0) to five-and-a-half (5.5) feet below ground surface (ft bgs) and four (4) horizontal sample points (H-1 through H-4) with a geotechnical hand auger. The samples were submitted to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico for analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, total petroleum hydrocarbons (TPH) by EPA Method 8015M, and chloride by EPA Method SM4500Cl-B. Analytical results indicated soil samples V-1 through V-3 exhibited concentrations above Table I Closure Criteria for TPH or chloride at zero (0) to six (6) inches bgs. Concentrations for all the horizontal samples were below the Table I standards. Figure 3 depicts the initial delineation sample locations, analytical results are provided on Table 1, Summary of Soil Analytical Data – Initial Assessment Samples, while laboratory reports are included in Attachment D.

## 5. Remedial Action Activities and Confirmation Sampling

Due to the initial soil sampling activities exhibiting TPH and chloride concentrations above Table I Closure Criteria, Standard Safety and Supply (Standard) proceeded with

Mr. Mike Bratcher  
November 17, 2023  
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remedial actions at the Site to include the excavation and disposal of impacted soils above regulatory limits.

All samples were collected based on one (1) composite sample representing an area no greater than two hundred (200) square feet (ft<sup>2</sup>) for both bottom and sidewalls and submitted to Cardinal for analysis of BTEX by EPA Method 8021B, TPH by EPA Method 8015M, or chlorides by EPA Method SM4500CI-B.

On October 9, 2023, NTGE conducted a confirmation sampling event, whereby thirty-one (31) bottom hole composite samples (CS-1 to CS-31) along with four (4) sidewall composite samples (SW-1 through SW-4) were collected and submitted to Cardinal Laboratory in Hobbs, New Mexico for analyses of BTEX, TPH, and chlorides. Analytical results indicated that seven (7) composite bottom samples (CS-1, CS-4, CS-5, CS-9, CS-13, CS-14 and CS-20) exhibited TPH and/or chloride concentrations above Table I Closure Criteria. All other samples exhibited BTEX, TPH and chloride concentrations below Table I Closure Criteria. Some of the bottom hole samples that exhibited concentrations below Table I Closure Criteria (CS-11, CS-19 and CS-28) removed due to expanded excavations. Based on this data, further excavation activities were conducted by Standard.

On October 16 and 17, 2023, NTGE conducted a confirmation sampling event, whereby seven (7) bottom hole composite samples (CS-1A, CS-4A, CS-5A, CS-9A, CS-13A, CS-14A, and CS-20A) and eight (8) sidewall composite samples (SW-5 through SW-12) were collected and submitted to Cardinal in Hobbs, New Mexico for analysis of BTEX, TPH, and chlorides. Analytical results indicated that all samples exhibited concentration below Table I Closure Criteria.

On October 23, 2023, after further excavation by Standard, NTGE conducted a confirmation sampling event, whereby three (3) bottom composite samples (CS-32 through CS-34), and one (1) sidewall composite sample (SW-13) were collected and submitted to Cardinal in Hobbs, New Mexico for analysis. Analytical results showed that one (1) bottom hole composite sample (CS-32) exhibited chloride concentrations above Table I Closure Criteria. Based on this data, NTGE directed Standard to conduct further excavation activities.

After further excavation activities, NTGE mobilized to the site on October 26, 2023, to conduct a confirmation sampling event, whereby four (4) bottom composite samples (CS-11A, CS-28A, CS-32A, and CS-35) and four (4) sidewall composite samples (SW-14 through SW-17) were collected and submitted to Cardinal in Hobbs, New Mexico for analysis. Analytical results indicated that two (2) bottom hole samples (CS-28A and CS-32A) exhibited TPH and/or chloride concentrations above Table I Closure Criteria. Due to the proximity of the heater treater the area where confirmation sample CS-32A could not be further excavated without destabilizing or compromising the integrity of the production equipment. Since deeper excavation of the area could not be conducted without compromising the integrity of the production equipment NTGE utilized a geotechnical hand auger to vertically delineate the area on October 31, 2023. Based on field screens, soil sample VD-1 at ten (10) feet was submitted to Cardinal for analysis. Analytical results indicated that BTEX, TPH, and chloride concentrations were below Table I

Mr. Mike Bratcher  
November 17, 2023  
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Closure Criteria, therefore the area had been fully delineated.

On October 31, 2023, NTGE conducted a confirmation sampling event, whereby five (5) bottom hole samples (CS-28B, and CS-36 to CS-39) and eight (8) sidewall composite samples (SW-14A, SW-17A, and SW-18 through SW-23) were collected and submitted to Cardinal in Hobbs, New Mexico for analysis of BTEX, TPH, and chlorides. Analytical results indicated that sidewall sample (SW-21) displayed chloride concentrations above Table I Closure Criteria, and sidewall sample (SW-23) exhibited TPH concentrations above Table I Closure Criteria. Although SW-21 exceeded regulatory thresholds, further excavation was not plausible due to its proximity to the heater treater. The impacted area is horizontally delineated by the surrounding sidewall and bottom hole confirmation samples taken directly south of the heater treater.

On November 3, 2023, after further excavations by Standard, NTGE conducted a final confirmation sampling event, whereby one (1) bottom hole sample (CS-38A) and one (1) sidewall sample (SW-23A) were collected and submitted to Cardinal in Hobbs, New Mexico for analysis. Analytical results indicate the samples were below Table I Closure Criteria.

Figure 4 depicts confirmation sample locations, analytical results are provided on Table 2, Summary of Soil Analytical Data – Confirmation Samples, and laboratory reports are provided on Attachment D. Sample Notifications are in Attachment B along with a Photographic Log of activities in Attachment C.

## 6. Soils Disposition and Backfill Activities

Approximately 545 cubic yards of impacted material were transported offsite for disposal at the Lazy Ace Landfill located in Eunice, New Mexico. The site will be backfilled with like-sourced materials and brought up to surface grade. Manifests are available upon request and aren't included in this report due to the size of the file.

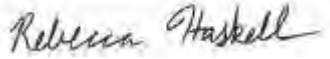
## 7. Closure and Deferral Request

Based on the assessment, remediation efforts, and requisite confirmation sampling events, the Site is in compliance with NMOCD regulatory standards with the exception of the area directly north of the vertical heater treater. Further remediation of the area directly north of the heater treater was not feasible without compromising or destabilizing the integrity of the equipment. Based on supporting documentation provided in this report, NTGE, on behalf of Earthstone respectfully requests closure for nAPP2325138536 with deferral of soils left in-situ above NMOCD standards near soil samples VD-1 and SW-21, until time of abandonment or upgrade of equipment allows for accessibility to the area. The Release Notification, Site Assessment/Characterization, Remediation Plan, and Closure portions of the NMOCD form C-141 are attached to the front of this report.

If you have any questions regarding this report or need additional information, please contact us at 432-766-1918.

Mr. Mike Bratcher  
November 17, 2023  
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Sincerely,  
**NTG Environmental**



Rebecca Haskell  
Senior Project Manager

Attachments:

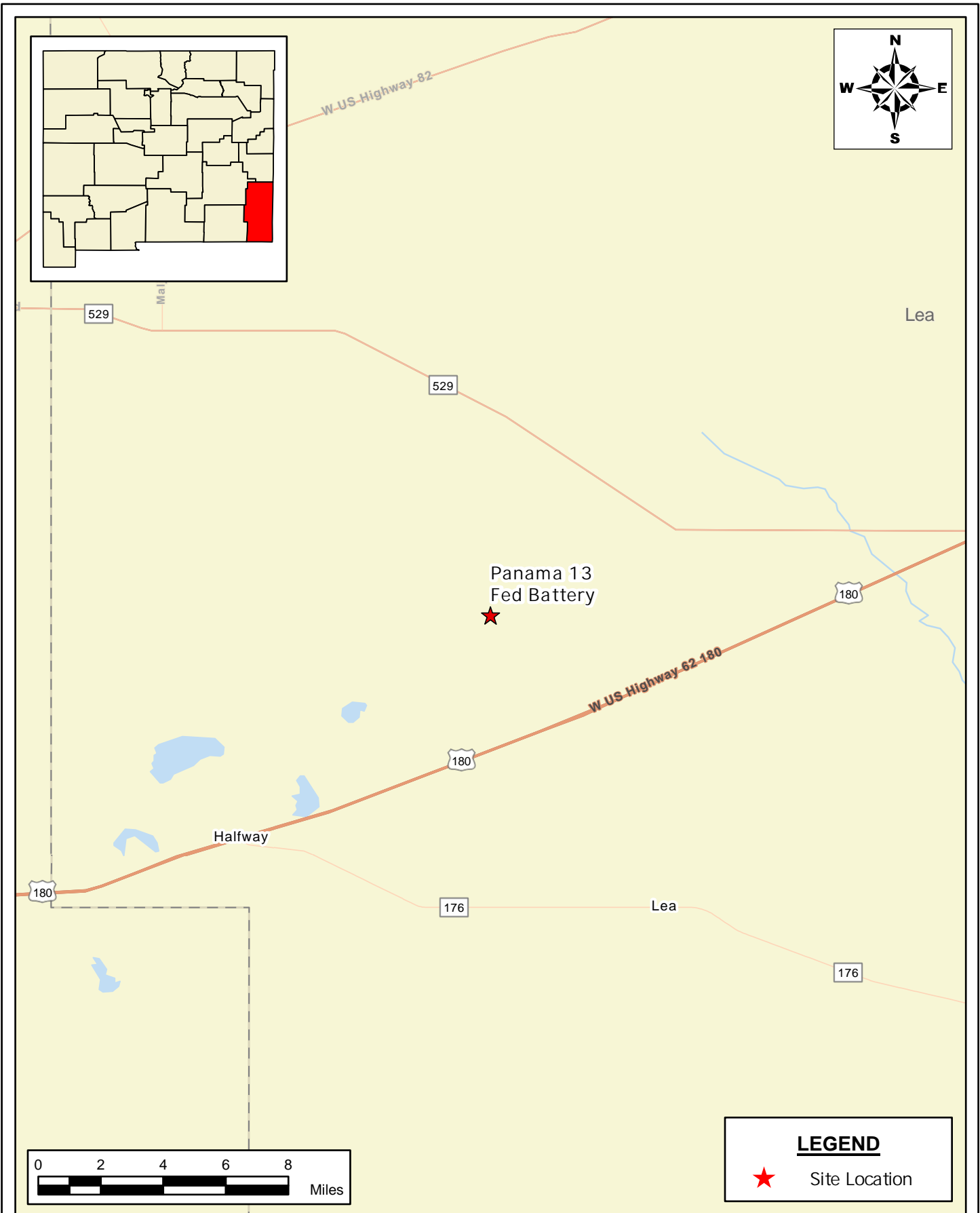
- Figure 1 – Site Location Map
- Figure 2 – Topographic Map
- Figure 3 – Delineation Sample Location Map
- Figure 4 – Confirmation Sample Location Map
- Table 1 Summary of Soil Analytical Data – Initial Assessment Samples
- Table 2 Summary of Soil Analytical Data – Confirmation Samples
- Attachment A – Site Characterization Documentation
- Attachment B – Confirmation Sampling Notifications
- Attachment C – Photographic Log
- Attachment D – Laboratory Reports and Chain-of-Custody Documentation

# FIGURES

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**SITE LOCATION MAP**  
**EARTHSTONE OPERATING, LLC**  
PANAMA 13 FED BATTERY  
LEA COUNTY, NEW MEXICO  
32.657505, -103.610938

SCALE: As Shown Date: 10/5/2023 PROJECT #: 237770

**New Tech Global Environmental, LLC**  
911 Regional Park Drive  
Houston, Texas 77060  
T - 281.872.9300  
F - 281.872.4521  
Web: www.ntglobal.com



**NOTES:**

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

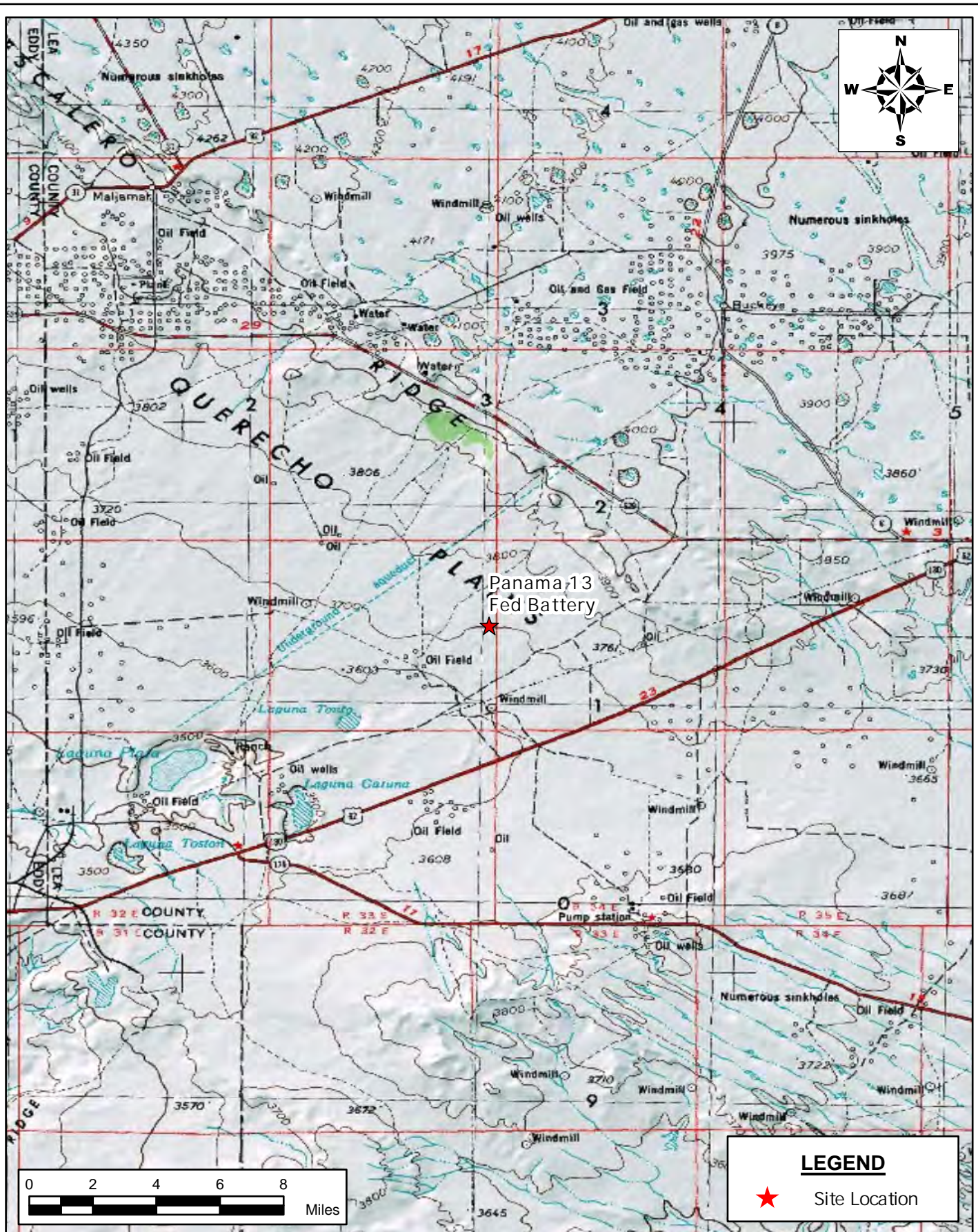
DRAWING NUMBER:

**FIGURE 1**

SHEET NUMBER:

**1 of 1**

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**TOPOGRAPHIC MAP**  
**EARTHSTONE OPERATING, LLC**  
**PANAMA 13 FED BATTERY**  
**LEA COUNTY, NEW MEXICO**  
 32.657505, -103.610938

SCALE: As Shown    Date: 10/5/2023    PROJECT #: 237770



**New Tech Global Environmental, LLC**  
 911 Regional Park Drive  
 Houston, Texas 77060  
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 F - 281.872.4521  
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**NOTES:**

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2. Map Projection: NAD 1983 UTM Zone 13N

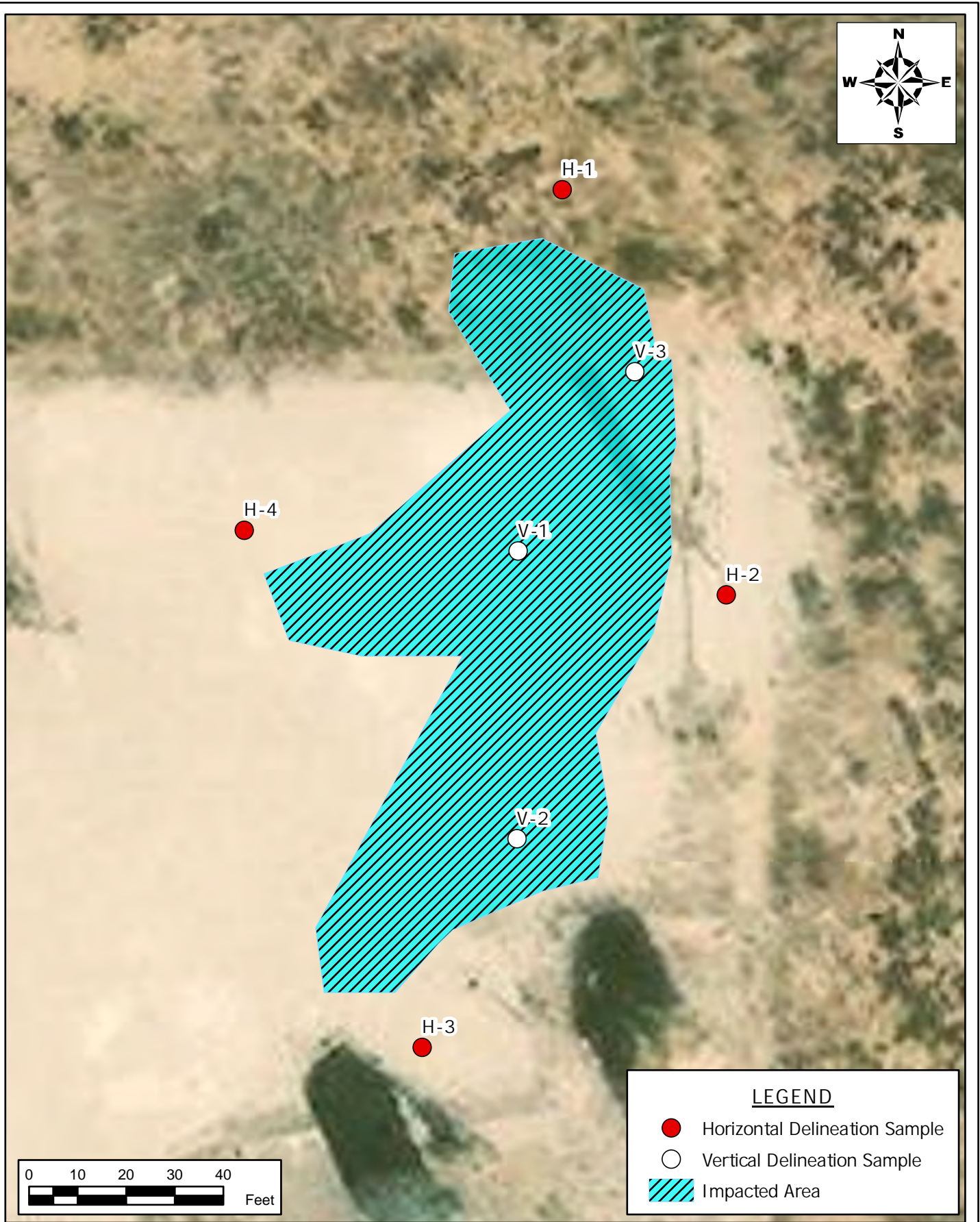
DRAWING NUMBER:

**FIGURE 2**

SHEET NUMBER:

**1 of 1**

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**DELINEATION SAMPLE LOCATION MAP**  
**EARTHSTONE OPERATING, LLC**  
PANAMA 13 FED BATTERY  
LEA COUNTY, NEW MEXICO  
32.657505, -103.610938

SCALE: As Shown    Date: 11/17/2023    PROJECT #: 237770



**New Tech Global Environmental, LLC**  
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**NOTES:**

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

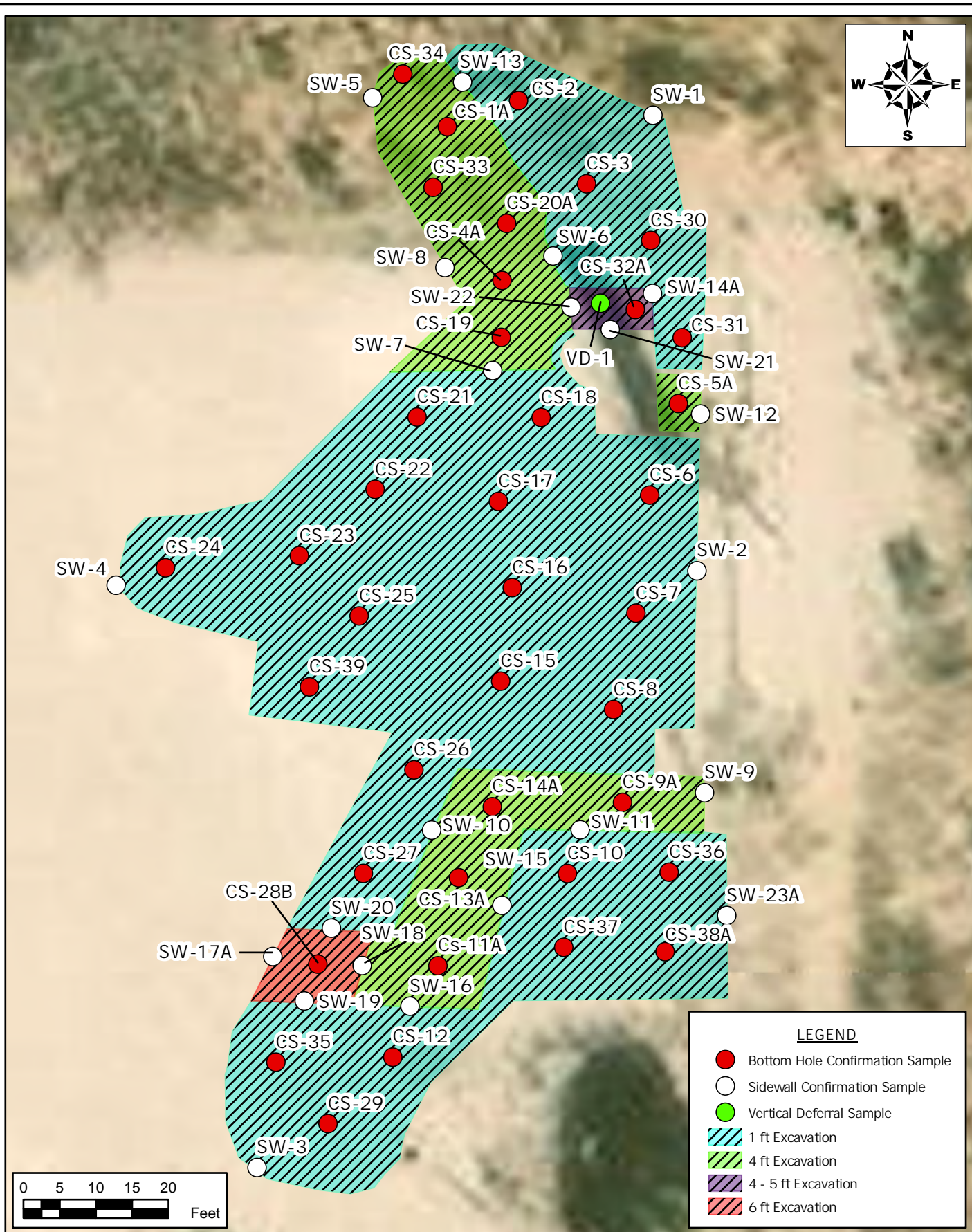
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**FIGURE 3**

SHEET NUMBER:

**1 of 1**

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**CONFIRMATION SAMPLE MAP**  
**EARTHSTONE OPERATING, LLC**  
 PANAMA 13 FED BATTERY  
 LEA COUNTY, NEW MEXICO  
 32.657505, -103.610938

SCALE: As Shown

Date: 11/15/2023

PROJECT #: 237770



**New Tech Global Environmental, LLC**  
 911 Regional Park Drive  
 Houston, Texas 77060  
 T - 281.872.9300  
 F - 281.872.4521  
 Web: www.ntglobal.com

**NOTES:**

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:

**FIGURE 4**

SHEET NUMBER:

**1 of 1**

# TABLES

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Table 1  
Summary of Soil Analytical Data - Initial Assessment Samples  
Panama 13 Fed Battery  
Earthstone Energy  
Lea County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride
								GRO (C6-C10)	DRO (C10-C28)	GRO + DRO (C6-C28)	MRO (C28-C35)	Total GRO/DRO/MRO (C6-C35)	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Table I Closure Criteria for Soil ≤ 50 feet Depth to Groundwater 19.15.29 NMAC										
10 mg/kg	---	---	---	50 mg/kg	---	---	---	---	100 mg/kg	600 mg/kg			
Vertical Delineation Samples													
V-1	8/29/2023	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	14.1	14.1	<10	14.1	1,250
V-1	8/29/2023	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	288
V-1	8/29/2023	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	176
V-1	8/29/2023	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	32.0
V-1	8/29/2023	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	64.0
V-1	8/29/2023	5-5.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	32.0
V-2	8/29/2023	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	113	113	22.5	135.5	80.0
V-2	8/29/2023	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	16.0
V-2	8/29/2023	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	<16
V-2	8/29/2023	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	32.0
V-3	8/29/2023	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	46.5	46.5	<10	46.5	1,840
V-3	8/29/2023	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	10.4	10.4	<10	10.4	464
V-3	8/29/2023	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	64.0
V-3	8/29/2023	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	32.0
V-3	8/29/2023	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	48.0
Horizontal Delineation Samples													
H-1	8/30/2023	0-5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	32.0
H-2	8/30/2023	0-5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	16.0
H-3	8/30/2023	0-5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	64.0
H-4	8/30/2023	0-5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<10	<10	144

## Notes:

1. Values reported in mg/kg

2. &lt; = Value Less Than Reporting Limit (RL)

3. Bold indicates Analyte Detected

4. BTEX analyses by EPA Method SW 8021B

 Sample Point Excavated

5. TPH analyses by EPA Method SW 8015 Mod.

6. GRO/DRO/MRO - Gasoline/Diesel/Motor Oil

7. Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I Closure Criteria for the site.

8. Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table I Closure Criteria for the site (Surface to 4 Feet Below Grade).

9. --- Not Analyzed

Table 2  
Summary of Soil Analytical Data - Confirmation Assessment Samples  
Panama 13 Fed Battery  
Earthstone Energy  
Lea, County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (C6-C10)	DRO (C10-C28)	GRO + DRO (C6-C28)	MRO (C28-C35)	Total GRO/DRO/MRO (C6-C35)	
			Table I Closure Criteria for Soil ≤ 50 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---	---	---	---	100 mg/kg	600 mg/kg
Base Confirmation Samples													
<del>CS-1</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>0.872</del>	<del>2.10</del>	<del>6.50</del>	<del>9.47</del>	<del>141</del>	<del>5,500</del>	<del>5,641</del>	<del>989</del>	<del>6,550</del>	<del>784</del>
CS-1A	10/16/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS-2	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS-3	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
<del>CS-4</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>51.0</del>	<del>51.0</del>	<del>&lt;10.0</del>	<del>51.0</del>	<del>1,260</del>
CS-4A	10/16/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
<del>CS-5</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>178</del>	<del>178</del>	<del>25.6</del>	<del>283.6</del>	<del>1,540</del>
CS-5A	10/16/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-6	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS-7	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS-8	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
<del>CS-9</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>0.854</del>	<del>0.257</del>	<del>0.915</del>	<del>1.23</del>	<del>23.8</del>	<del>1460</del>	<del>1,483.8</del>	<del>253</del>	<del>1,737</del>	<del>32.0</del>
CS-9A	10/16/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-10	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
<del>CS-11</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;16.0</del>
CS-11A	10/26/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-12	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
<del>CS-13</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>683</del>	<del>683</del>	<del>126</del>	<del>809</del>	<del>&lt;16.0</del>
CS-13A	10/16/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	18.9	18.9	<10.0	18.9	<16.0
<del>CS-14</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>160</del>	<del>160</del>	<del>14.3</del>	<del>174.3</del>	<del>32.0</del>
CS-14A	10/16/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-15	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS-16	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS-17	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS-18	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0

Table 2  
Summary of Soil Analytical Data - Confirmation Assessment Samples  
Panama 13 Fed Battery  
Earthstone Energy  
Lea, County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride
								GRO (C6-C10)	DRO (C10-C28)	GRO + DRO (C6-C28)	MRO (C28-C35)	Total GRO/DRO/MRO (C6-C35)	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Table 1 Closure Criteria for Soil ≤ 50 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---	---	---	---	100 mg/kg	600 mg/kg
<del>CS-19</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>144</del>
<del>CS-20</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>210</del>	<del>210</del>	<del>22.2</del>	<del>232.2</del>	<del>96.0</del>
CS-20A	10/16/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-21	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS-22	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	14.3	14.3	<10.0	14.3	544
CS-23	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-24	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-25	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-26	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-27	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	72.9	72.9	<10.0	72.9	<16.0
<del>CS-28</del>	<del>10/9/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;16.0</del>
<del>CS-28A</del>	<del>10/26/2023</del>	<del>4'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>0.301</del>	<del>1.94</del>	<del>2.28</del>	<del>94.2</del>	<del>724</del>	<del>818.2</del>	<del>137</del>	<del>955.2</del>	<del>&lt;16.0</del>
CS-28B	10/31/2023	6'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-29	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-30	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-31	10/9/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
<del>CS-32</del>	<del>10/23/2023</del>	<del>4'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>960</del>
CS-32A	10/26/2023	5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,060
CS-33	10/23/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	15.7	15.7	<10.0	15.7	64.0
CS-34	10/23/2023	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
CS-35	10/26/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
CS-36	10/31/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-37	10/31/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
<del>CS-38</del>	<del>10/31/2023</del>	<del>1'</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.050</del>	<del>&lt;0.150</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;16.0</del>
CS-38A	11/3/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS-39	10/31/2023	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0

**Table 2**  
**Summary of Soil Analytical Data - Confirmation Assessment Samples**  
**Panama 13 Fed Battery**  
**Earthstone Energy**  
**Lea, County, New Mexico**

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride
								GRO (C6-C10)	DRO (C10-C28)	GRO + DRO (C6-C28)	MRO (C28-C35)	Total GRO/DRO/MRO (C6-C35)	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
			Table I Closure Criteria for Soil ≤ 50 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---	---	---	---	100 mg/kg	600 mg/kg
Sidewall Confirmation Samples													
SW-1	10/9/2023	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW-2	10/9/2023	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-3	10/9/2023	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	384
SW-4	10/9/2023	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW-5	10/16/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-6	10/16/2023	1-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW-7	10/16/2023	1-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW-8	10/16/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-9	10/16/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-10	10/16/2023	1-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW-11	10/16/2023	1-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-12	10/17/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW-13	10/23/2023	1-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW-14	10/26/2023	1-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
SW-14A	10/31/2023	1-5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SW-15	10/26/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-16	10/26/2023	1-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-17	10/26/2023	0-4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-17A	10/31/2023	1-6'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-18	10/31/2023	4-6'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW-19	10/31/2023	1-6'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-20	10/31/2023	1-6'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW-21	10/31/2023	0-5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,080
SW-22	10/31/2023	4-5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	512
SW-23	10/31/2023	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	79.3	79.3	30.6	109.9	48.0
SW-23A	11/3/2023	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
Differal Samples													
VD-1	10/31/2023	10'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112

**Notes:**

1. Values reported in mg/kg

2. &lt; = Value Less Than Reporting Limit (RL)

3. Bold indicates Analyte Detected

4. BTEX analyses by EPA Method SW 8021B

SP-1 Sample Point Excavated

5. TPH analyses by EPA Method SW 8015 Mod.

6. GRO/DRO/MRO - Gasoline/Diesel/Motor Oil

7. Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I Closure Criteria for the site.

8. Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table I Closure Criteria for the site (Surface to 4 Feet Below Grade).

9. --- Not Analyzed

# ATTACHMENT A: SITE CHARACTERIZATION DOCUMENTATION

---



# OCD Site Characterization Map

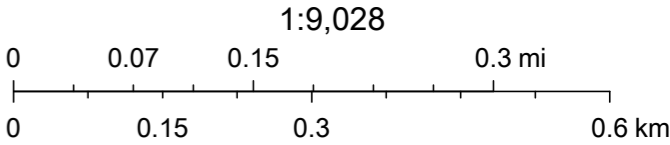


10/24/2023, 4:43:22 PM

 Site Location

Karst Occurrence Potential

 Low

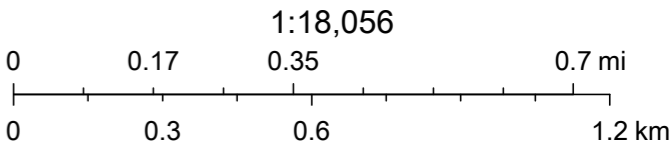


BLM, OCD, New Mexico Tech, USGS, Esri, HERE, Garmin, IPC, Maxar, NM OSE

# OSE POD Location Map



9/27/2023, 10:29:15 AM



Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

# Panama 13 Fed Battery

Significant Watercourse

## Legend

- 0.5 Mile Radius
- 300 FT Radius
- Panama 13 Fed Battery

T19S R33E

13

18

3700

Panama 13 Fed Battery

Google Earth



3000 ft



## Panama 13 Fed Battery



August 30, 2023

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# National Flood Hazard Layer FIRMette



103°37'W 32°39'35"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

103°36'22"W 32°39'5"N

Released to Imaging: 3/11/2024 8:24:18 AM

Basemap Imagery Source: USGS National Map 2023

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/30/2023 at 3:40 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

# **ATTACHMENT B: CONFIRMATION SAMPLING NOTIFICATIONS**

---

**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Ricardo Baer](#); [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Cc:** [Becky Haskell](#); [NTG Env Carlsbad](#)  
**Subject:** RE: [EXTERNAL] Panama 13 Federal Tank Battery  
**Date:** Wednesday, October 4, 2023 3:38:49 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

---

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Hi Ricardo,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

**Shelly Wells** \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Ricardo Baer <[RBaer@ntglobal.com](mailto:RBaer@ntglobal.com)>  
**Sent:** Wednesday, October 4, 2023 1:56 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Becky Haskell <[bhaskell@ntglobal.com](mailto:bhaskell@ntglobal.com)>; NTG Env Carlsbad <[ntg\\_env\\_carlsbad@ntglobal.com](mailto:ntg_env_carlsbad@ntglobal.com)>  
**Subject:** [EXTERNAL] Panama 13 Federal Tank Battery

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good Afternoon,

NTGE, on behalf of Earthstone Resources Operating, LLC, respectfully submits notification of sampling to be conducted at the below location.

Panama 13 Federal Tank Battery  
I-13-19S-33E  
Lea, NM  
nAPP2325138536

Sampling will begin at 8:00 a.m. on Monday, October 9, 2023, and continue through Friday, October 13, 2023. Please let me know if you have any questions.

Thank you,

**Ricardo Baer, CSHO<sup>2</sup>**

**Project Coordinator**

**(432) 556-2006**

[Rbaer@ntglobal.com](mailto:Rbaer@ntglobal.com)



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**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Ricardo Baer](#); [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Cc:** [Becky Haskell](#)  
**Subject:** RE: [EXTERNAL] Panama 13 Federal Tank Battery  
**Date:** Wednesday, October 11, 2023 2:11:03 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

---

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Hi Ricardo,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

**Shelly Wells** \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Ricardo Baer <[RBaer@ntglobal.com](mailto:RBaer@ntglobal.com)>  
**Sent:** Wednesday, October 11, 2023 12:39 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Becky Haskell <[bhaskell@ntglobal.com](mailto:bhaskell@ntglobal.com)>; NTG Env Carlsbad <[ntg\\_env\\_carlsbad@ntglobal.com](mailto:ntg_env_carlsbad@ntglobal.com)>  
**Subject:** [EXTERNAL] Panama 13 Federal Tank Battery

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Good Afternoon,

NTGE, on behalf of Earthstone Resources Operating, LLC, respectfully submits notification of sampling to be conducted at the below location.

Panama 13 Federal Tank Battery  
I-13-19S-33E  
Lea, NM  
nAPP2325138536

Sampling will begin at 8:00 a.m. on Monday, October 16, 2023, and continue through Friday, October 20, 2023. Please let me know if you have any questions.

Thank you,

**Ricardo Baer, CSHO<sup>2</sup>**

**Project Coordinator**

**(432) 556-2006**

[Rbaer@ntglobal.com](mailto:Rbaer@ntglobal.com)



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**From:** [Ricardo Baer](#)  
**To:** [ocd.enviro@emnrd.nm.gov](mailto:ocd.enviro@emnrd.nm.gov)  
**Cc:** [Becky Haskell](#); [NTG Env Carlsbad](#)  
**Subject:** Panama 13 Federal Tank Battery  
**Date:** Wednesday, October 18, 2023 2:48:21 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

---

Good Afternoon,

NTGE, on behalf of Earthstone Resources Operating, LLC, respectfully submits notification of sampling to be conducted at the below location.

Panama 13 Federal Tank Battery  
I-13-19S-33E  
Lea, NM  
nAPP2325138536

Sampling will begin at 8:00 a.m. on Monday, October 23, 2023, and continue through Friday, October 27, 2023. Please let me know if you have any questions.

Thank you,

**Ricardo Baer, CSHO<sup>2</sup>**  
**Project Cordinator**  
**(432) 556-2006**  
[Rbaer@ntglobal.com](mailto:Rbaer@ntglobal.com)



**From:** [Rodgers, Scott, EMNRD](#)  
**To:** [Ricardo Baer](#); [Velez, Nelson, EMNRD](#); [Bratcher, Michael, EMNRD](#)  
**Cc:** [NTG Env Carlsbad](#); [Becky Haskell](#)  
**Subject:** RE: [EXTERNAL] Panama 13 Federal Tank Battery  
**Date:** Wednesday, October 25, 2023 3:50:14 PM  
**Attachments:** [image004.png](#)  
[image005.png](#)

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**Scott Rodgers • Environmental Specialist**  
Environmental Bureau  
EMNRD - Oil Conservation Division  
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113  
505.469.1830 | [scott.rodgers@emnrd.nm.gov](mailto:scott.rodgers@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/oed>



---

**From:** Ricardo Baer <[RBaer@ntglobal.com](mailto:RBaer@ntglobal.com)>  
**Sent:** Wednesday, October 25, 2023 2:48 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** NTG Env Carlsbad <[ntg\\_env\\_carlsbad@ntglobal.com](mailto:ntg_env_carlsbad@ntglobal.com)>; Becky Haskell <[bhaskell@ntglobal.com](mailto:bhaskell@ntglobal.com)>  
**Subject:** [EXTERNAL] Panama 13 Federal Tank Battery

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Good Afternoon,

NTGE, on behalf of Earthstone Resources Operating, LLC, respectfully submits notification of sampling to be conducted at the below location.

Panama 13 Federal Tank Battery  
I-13-19S-33E  
Lea, NM  
nAPP2325138536

Sampling will begin at 8:00 a.m. on Monday, October 30, 2023, and continue through Friday, November 3, 2023. Please let me know if you have any questions.

Thank you,

**Ricardo Baer, CSHO<sup>2</sup>**

**Project Coordinator**

**(432) 556-2006**

[Rbaer@ntglobal.com](mailto:Rbaer@ntglobal.com)



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## ATTACHMENT C: PHOTOGRAPHIC LOG

---



**PHOTOGRAPHIC LOG**

Earthstone Operating, LLC

**Photograph No. 1****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**  
View of Impacted Area**Photograph No. 2****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**  
View of Impacted Area**Photograph No. 3****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**  
View of Impacted Area

**PHOTOGRAPHIC LOG**

Earthstone Operating, LLC

**Photograph No. 4****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**

View of Initial Assessment Activities

**Photograph No. 5****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**

View of Initial Assessment Activities

**Photograph No. 6****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**

View of Remedial Action Activities



**PHOTOGRAPHIC LOG**

Earthstone Operating, LLC

**Photograph No. 7****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**  
View of Remedial Action Activities**Photograph No. 8****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**  
View of Remedial Action Activities**Photograph No. 9****Facility:** Panama 13 Fed Battery**County:** Lea County, New Mexico**Description:**  
View of Remedial Action Activities

# **ATTACHMENT D: LABORATORY ANALYTICAL REPORTS AND CHAIN-OF- CUSTODY DOCUMENTATION**

---





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

September 05, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA 13

Enclosed are the results of analyses for samples received by the laboratory on 08/29/23 15:56.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/29/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: V - 1 (0-.5') (H234702-01)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTX	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1250	16.0	08/30/2023	ND	400	100	400	7.69		

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	14.1	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 1 (1-1.5') (H234702-02)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09		
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347		
Total BTEX	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.2 % 49.1-148

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:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 1 (2-2.5') (H234702-03)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTEX	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/29/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: V - 1 (3-3.5') (H234702-04)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTEx	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 1 (4-4.5') (H234702-05)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09		
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347		
Total BTEX	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/30/2023	ND	400	100	400	7.69		

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/29/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: V - 1 (5-5.5') (H234702-06)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09		
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347		
Total BTEX	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 99.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 2 (0-.5') (H234702-07)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTEX	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/30/2023	ND	400	100	400	7.69		

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	113	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	22.5	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 95.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/29/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: V - 2 (1-1.5') (H234702-08)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09		
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347		
Total BTX	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B			mg/kg							
			Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/30/2023	ND	400	100	400	7.69		

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	08/30/2023	ND	194	96.8	200	10.2		
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01		
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND						

Surrogate: 1-Chlorooctane 96.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 2 (2-2.5') (H234702-09)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTEX	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/29/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: V - 2 (3-3.5') (H234702-10)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09		
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347		
Total BTEx	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/30/2023	ND	400	100	400	7.69		

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/29/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: V - 3 (0-.5') (H234702-11)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTEx	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	46.5	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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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:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 3 (1-1.5') (H234702-12)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTEx	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	10.4	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 95.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 3 (2-2.5') (H234702-13)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09		
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347		
Total BTEX	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/30/2023	ND	400	100	400	7.69	

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 96.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/29/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: V - 3 (3-3.5') (H234702-14)**

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	08/31/2023	ND	1.84	92.0	2.00	1.09		
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347		
Total BTX	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/30/2023	ND	400	100	400	7.69		

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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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:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/29/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/29/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shari Cisneros

**Sample ID: V - 3 (4-4.5') (H234702-15)**

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	09/01/2023	ND	1.82	90.9	2.00	2.11		
Toluene*	<0.050	0.050	09/01/2023	ND	1.77	88.7	2.00	1.70		
Ethylbenzene*	<0.050	0.050	09/01/2023	ND	1.84	92.0	2.00	2.52		
Total Xylenes*	<0.150	0.150	09/01/2023	ND	5.50	91.7	6.00	2.97		
Total BTX	<0.300	0.300	09/01/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/30/2023	ND	384	96.0	400	4.08		

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	08/30/2023	ND	194	96.8	200	10.2	
DRO >C10-C28*	<10.0	10.0	08/30/2023	ND	196	97.9	200	5.01	
EXT DRO >C28-C36	<10.0	10.0	08/30/2023	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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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".

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>NTU</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>													
Project Manager: <u>Becky Haskell</u>				P.O. #:																	
Address: <u>209 Winding St</u>				Company:																	
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>				Attn:																	
Phone #: <u>432-924-8056</u> Fax #:				Address:																	
Project #: <u>237770</u> Project Owner: <u>Earthstone</u>				City:																	
Project Name: <u>Panama IS</u>				State: Zip:																	
Project Location: <u>Lee County</u>				Phone #:																	
Sampler Name: <u>Mike Umbrell</u>				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.	Sample I.D.	(GRAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING		<u>Carlsbad</u> <u>BTEX</u> <u>PH</u>											
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :								ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME
<u>H234702</u>	<u>V-1 (0-.5)</u>	<u>6</u>	<u>1</u>			<u>X</u>														<u>8-29</u>	<u>2:00</u>
	<u>V-1 (1-1.5)</u>																				<u>2:05</u>
	<u>V-1 (2-2.5)</u>																				<u>2:10</u>
	<u>V-1 (3-3.5)</u>																				<u>2:15</u>
	<u>V-1 (4-4.5)</u>																				<u>2:20</u>
	<u>V-1 (5-5.5)</u>																				<u>2:25</u>
	<u>V-2 (0-.5)</u>																				<u>2:30</u>
	<u>V-2 (1-1.5)</u>																				<u>2:35</u>
	<u>V-2 (2-2.5)</u>																				<u>2:40</u>
	<u>V-2 (3-3.5)</u>																				<u>2:45</u>

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Relinquished By: <u>[Signature]</u>	Date: <u>8-29</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Time: <u>3:56pm</u>			All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS:
Time:			
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Sampler - UPS - Bus - Other:	Corrected Temp. °C	<input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	Bacteria (only) Sample Condition <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No
		CHECKED BY: (Initials) <u>SC</u>	Thermometer ID #113 Correction Factor -0.8°C

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <b>NT6E</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: <b>Beddy Haskel</b>				P.O. #:															
Address: <b>209 W McKay</b>				Company:															
City: <b>Carlsbad</b> State: <b>NM</b> Zip: <b>88220</b>				Attn:															
Phone #: <b>452-924-8056</b> Fax #:				Address:															
Project #: <b>237770</b> Project Owner: <b>Earthstone</b>				City:															
Project Name: <b>Parana 13</b>				State: Zip:															
Project Location: <b>Lea County</b>				Phone #:															
Sampler Name: <b>Tyler Lumball</b>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING		<b>Chlorides</b> <b>BTEX</b> <b>PH</b>			
				GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER				ACID/BASE	
				ICE / COOL		OTHER		DATE		TIME									
<b>H234702</b>		<b>V-3 (0-.5)</b>		<b>6</b>		<b>1</b>		<b>X</b>				<b>8-29</b>		<b>2:50</b>					
<b>11</b>		<b>V-3 (1-1.5)</b>										<b>2:55</b>							
<b>12</b>		<b>V-3 (2-2.5)</b>										<b>3:00</b>							
<b>13</b>		<b>V-3 (3-3.5)</b>										<b>3:05</b>							
<b>14</b>		<b>V-3 (4-4.5)</b>										<b>3:10</b>							
<b>15</b>																			

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Relinquished By:		Date: <b>8-29</b>		Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Time: <b>3:56 PM</b>		Received By:		All Results are emailed. Please provide Email address:	
Delivered By: (Circle One)		Date:		Received By:		REMARKS:	
Sampler - UPS - Bus - Other:		Time:		Observed Temp. °C: <b>-1.4°C</b>		Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
				Corrected Temp. °C:		Bacteria (only) Sample Condition	
				Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact		Cool Intact Observed Temp. °C	
				CHECKED BY: (Initials)		Thermometer ID #113	
						Correction Factor -0.6°C	
						<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C	

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsonm.com



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September 05, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA 13

Enclosed are the results of analyses for samples received by the laboratory on 08/30/23 13:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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' at the beginning.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/30/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/30/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: H - 1 (0-.5') (H234724-01)**

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	08/31/2023	ND	1.86	92.8	2.00	0.173	
Toluene*	<0.050	0.050	08/31/2023	ND	1.81	90.4	2.00	0.0137	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.88	94.2	2.00	0.0851	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.65	94.1	6.00	0.494	
Total BTEx	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/31/2023	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	08/31/2023	ND	207	103	200	6.81	
DRO >C10-C28*	<10.0	10.0	08/31/2023	ND	210	105	200	6.02	
EXT DRO >C28-C36	<10.0	10.0	08/31/2023	ND					

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/30/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/30/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: H - 2 (0-.5') (H234724-02)**

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	08/31/2023	ND	1.86	92.8	2.00	0.173	
Toluene*	<0.050	0.050	08/31/2023	ND	1.81	90.4	2.00	0.0137	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.88	94.2	2.00	0.0851	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.65	94.1	6.00	0.494	
Total BTEX	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/31/2023	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	08/31/2023	ND	207	103	200	6.81	
DRO >C10-C28*	<10.0	10.0	08/31/2023	ND	210	105	200	6.02	
EXT DRO >C28-C36	<10.0	10.0	08/31/2023	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 08/30/2023  
Reported: 09/05/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/30/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: H - 3 (0-.5') (H234724-03)**

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	08/31/2023	ND	1.86	92.8	2.00	0.173		
Toluene*	<0.050	0.050	08/31/2023	ND	1.81	90.4	2.00	0.0137		
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.88	94.2	2.00	0.0851		
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.65	94.1	6.00	0.494		
Total BTX	<0.300	0.300	08/31/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/31/2023	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	08/31/2023	ND	207	103	200	6.81	
DRO >C10-C28*	<10.0	10.0	08/31/2023	ND	210	105	200	6.02	
EXT DRO >C28-C36	<10.0	10.0	08/31/2023	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 08/30/2023  
 Reported: 09/05/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 08/30/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: H - 4 (0-.5') (H234724-04)**

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	08/31/2023	ND	1.86	92.8	2.00	0.173	
Toluene*	<0.050	0.050	08/31/2023	ND	1.81	90.4	2.00	0.0137	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.88	94.2	2.00	0.0851	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.65	94.1	6.00	0.494	
Total BTEX	<0.300	0.300	08/31/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/31/2023	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	08/31/2023	ND	207	103	200	6.81	
DRO >C10-C28*	<10.0	10.0	08/31/2023	ND	210	105	200	6.02	
EXT DRO >C28-C36	<10.0	10.0	08/31/2023	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.8 % 49.1-148

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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".

---

Celey D. Keene, Lab Director/Quality Manager

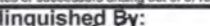
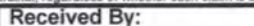
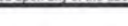


101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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Relinquished By: 		Date: 8/30 Time: 1:34		Received By: 		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____	
Relinquished By: _____		Date: 8/30/23 Time: 13:35		Received By: _____		REMARKS: _____	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____		Observed Temp. °C 13.9 Corrected Temp. °C + 0.4		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY:  (Initials) Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID #113 Correction Factor -0.6°C	
						Bacteria (only) Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No Corrected Temp. °C	

FORM-000 R 3.3 07/16/22

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



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

October 10, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA 13

Enclosed are the results of analyses for samples received by the laboratory on 10/09/23 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 "Coley 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:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 1 (1') (H235486-01)**

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/09/2023	ND	2.08	104	2.00	4.05	
Toluene*	<b>0.872</b>	0.050	10/09/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<b>2.10</b>	0.050	10/09/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<b>6.50</b>	0.150	10/09/2023	ND	6.04	101	6.00	3.55	
Total BTX	<b>9.47</b>	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 235 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>784</b>	16.0	10/10/2023	ND	448	112	400	7.41	

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*	<b>141</b>	50.0	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<b>5500</b>	50.0	10/09/2023	ND	197	98.6	200	4.82	QM-07, QR-03
EXT DRO >C28-C36	<b>909</b>	50.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 300 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 2 (1') (H235486-02)**

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	10/09/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/09/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.04	101	6.00	3.55	
Total BTEx	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 55.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 54.5 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 3 (1') (H235486-03)**

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	10/09/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/09/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.04	101	6.00	3.55	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 69.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 4 (1') (H235486-04)**

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	10/09/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/09/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.04	101	6.00	3.55	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	10/10/2023	ND	448	112	400	7.41	

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	51.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 81.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 5 (1') (H235486-05)**

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	10/09/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/09/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.04	101	6.00	3.55	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1540	16.0	10/10/2023	ND	448	112	400	7.41	

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	178	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	25.6	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 86.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 6 (1') (H235486-06)**

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	10/09/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/09/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.04	101	6.00	3.55	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/10/2023	ND	448	112	400	7.41	

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 85.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 7 (1') (H235486-07)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 8 (1') (H235486-08)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTEx	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/10/2023	ND	448	112	400	7.41	

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 9 (1') (H235486-09)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	0.054	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	0.257	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	0.915	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTEX	1.23	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 133 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/10/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	23.8	10.0	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	1460	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	253	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 148 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 10 (1') (H235486-10)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 81.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.9 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 11 (1') (H235486-11)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTEx	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.7 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 12 (1') (H235486-12)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 13 (1') (H235486-13)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	683	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	126	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 14 (1') (H235486-14)**

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	10/10/2023	ND	2.08	104	2.00	4.05	
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.25	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.02	101	2.00	4.37	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.04	101	6.00	3.55	
Total BTX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	160	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	14.3	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 89.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 15 (1') (H235486-15)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/10/2023	ND	448	112	400	7.41	

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 82.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 16 (1') (H235486-16)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEx	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/10/2023	ND	448	112	400	7.41		

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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 86.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 17 (1') (H235486-17)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 97.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 18 (1') (H235486-18)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 19 (1') (H235486-19)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 20 (1') (H235486-20)**

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	10/09/2023	ND	2.15	107	2.00	1.67		
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63		
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268		
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576		
Total BTEx	<0.300	0.300	10/09/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-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	10/10/2023	ND	432	108	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	10/09/2023	ND	179	89.7	200	5.88	
DRO >C10-C28*	210	10.0	10/09/2023	ND	197	98.6	200	4.82	
EXT DRO >C28-C36	22.2	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 79.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 21 (1') (H235486-21)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 22 (1') (H235486-22)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	14.3	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 23 (1') (H235486-23)**

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	10/09/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/09/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/09/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/09/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 24 (1') (H235486-24)**

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	10/10/2023	ND	2.15	107	2.00	1.67		
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63		
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268		
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576		
Total BTEX	<0.300	0.300	10/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 25 (1') (H235486-25)**

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	10/10/2023	ND	2.15	107	2.00	1.67		
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63		
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268		
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576		
Total BTEx	<0.300	0.300	10/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 26 (1') (H235486-26)**

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	10/10/2023	ND	2.15	107	2.00	1.67		
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63		
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268		
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576		
Total BTEX	<0.300	0.300	10/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 136 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 27 (1') (H235486-27)**

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	10/10/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
<b>DRO &gt;C10-C28*</b>	<b>72.9</b>	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: CS - 28 (1') (H235486-28)**

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	10/10/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 29 (1') (H235486-29)**

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	10/10/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576	
Total BTEx	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 30 (1') (H235486-30)**

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	10/10/2023	ND	2.15	107	2.00	1.67		
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63		
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268		
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576		
Total BTEx	<0.300	0.300	10/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 96.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: CS - 31 (1') (H235486-31)**

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	10/10/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW - 1 (0-1') (H235486-32)**

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	10/10/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: SW - 2 (0-1') (H235486-33)**

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	10/10/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576	
Total BTEx	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/09/2023  
 Reported: 10/10/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW - 3 (0-1') (H235486-34)**

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	10/10/2023	ND	2.15	107	2.00	1.67	
Toluene*	<0.050	0.050	10/10/2023	ND	2.04	102	2.00	1.63	
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.11	105	2.00	0.0268	
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.13	102	6.00	0.576	
Total BTEX	<0.300	0.300	10/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/09/2023  
Reported: 10/10/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/09/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: SW - 4 (0-1') (H235486-35)**

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	10/10/2023	ND	2.08	104	2.00	5.02		
Toluene*	<0.050	0.050	10/10/2023	ND	2.08	104	2.00	3.92		
Ethylbenzene*	<0.050	0.050	10/10/2023	ND	2.01	100	2.00	5.36		
Total Xylenes*	<0.150	0.150	10/10/2023	ND	6.05	101	6.00	6.62		
Total BTEx	<0.300	0.300	10/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/10/2023	ND	432	108	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	10/09/2023	ND	195	97.6	200	6.05	
DRO >C10-C28*	<10.0	10.0	10/09/2023	ND	217	108	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/09/2023	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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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.
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".

Celey D. Keene, Lab Director/Quality Manager










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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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Relinquished By: 		Date: 10-9	Received By: 	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: 16:57				All Results are emailed. Please provide Email address:	
Relinquished By:	Date: 10-9-23	Received By:		REMARKS:	
	Time: 12:00				
Delivered By: (Circle One)	Observed Temp. °C -0.5°C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:	Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID #140	Bacteria (only) Sample Condition
				Correction Factor 0°C	Cool <input type="checkbox"/> Yes <input type="checkbox"/> No
					Intact <input type="checkbox"/> Yes <input type="checkbox"/> No
					Observed Temp. °C
					Corrected Temp. °C



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> NTBE <b>Project Manager:</b> Becky Haskell <b>Address:</b> 209 W. McCarty St <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 432 924-8056 <b>Fax #:</b> <b>Project #:</b> 237770 <b>Project Owner:</b> Earthstone <b>Project Name:</b> <del>Panorama</del> <b>Project Location:</b> Ben Canyon <b>Sampler Name:</b> Taylor Humberli		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>													
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> 4235486 <b>Sample I.D.</b> 31 CS-31(1) 32 SW-1(0-1) 33 SW-2(0-1) 34 SW-3(0-1) 35 SW-4(0-1)		<b>MATRIX</b> GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		<b>PRESERV.</b> ACID/BASE: ICE / COOL OTHER:		<b>SAMPLING</b> DATE 10-9 TIME 10:30		Chlorides TPH BTEX									

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<b>Relinquished By:</b> [Signature] <b>Date:</b> 10-9 <b>Time:</b> 11:57 <b>Relinquished By:</b> [Signature] <b>Date:</b> 10-9-23 <b>Time:</b> 12:00	<b>Received By:</b> [Signature] <b>Date:</b> 10-9-23 <b>Time:</b> 12:00	<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b> <b>REMARKS:</b>
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:	<b>Observed Temp. °C</b> = 0.5°C <b>Corrected Temp. °C</b>	<b>Sample Condition</b> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No
<b>Turnaround Time:</b> Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> 24 hr.		<b>Bacteria (only) Sample Condition</b> Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C

FORM-000 R 3-4 07/11/23

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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October 17, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA 13

Enclosed are the results of analyses for samples received by the laboratory on 10/16/23 13:16.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received:	10/16/2023	Sampling Date:	10/16/2023
Reported:	10/17/2023	Sampling Type:	Soil
Project Name:	PANAMA 13	Sampling Condition:	Cool & Intact
Project Number:	237770	Sample Received By:	Tamara Oldaker
Project Location:	EARTHSTONE - LEA COUNTY		

**Sample ID: CS - 1A (4') (H235623-01)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296	
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577	
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636	
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45	
Total BTX	<0.300	0.300	10/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.5 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/16/2023  
Reported: 10/17/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: CS - 4A (4') (H235623-02)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45		
Total BTEx	<0.300	0.300	10/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 5A (4') (H235623-03)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45		
Total BTEx	<0.300	0.300	10/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 9A (4') (H235623-04)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296	
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577	
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636	
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45	
Total BTEx	<0.300	0.300	10/16/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 89.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 13A (4') (H235623-05)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45		
Total BTEx	<0.300	0.300	10/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
<b>DRO &gt;C10-C28*</b>	<b>18.9</b>	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 14A (4') (H235623-06)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45		
Total BTX	<0.300	0.300	10/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 20A (4') (H235623-07)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45		
Total BTEx	<0.300	0.300	10/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW - 5 (0-4') (H235623-08)**

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	10/16/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/16/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/16/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/16/2023	ND	5.99	99.8	6.00	1.45		
Total BTX	<0.300	0.300	10/16/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/16/2023  
Reported: 10/17/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW - 6 (1-4') (H235623-09)**

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	10/17/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/17/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/17/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/17/2023	ND	5.99	99.8	6.00	1.45		
Total BTX	<0.300	0.300	10/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW - 7 (1-4') (H235623-10)**

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	10/17/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/17/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/17/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/17/2023	ND	5.99	99.8	6.00	1.45		
Total BTEX	<0.300	0.300	10/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 84.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/16/2023  
Reported: 10/17/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW - 8 (0-4') (H235623-11)**

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	10/17/2023	ND	1.92	96.2	2.00	0.296	
Toluene*	<0.050	0.050	10/17/2023	ND	1.99	99.3	2.00	0.577	
Ethylbenzene*	<0.050	0.050	10/17/2023	ND	2.01	100	2.00	0.636	
Total Xylenes*	<0.150	0.150	10/17/2023	ND	5.99	99.8	6.00	1.45	
Total BTEX	<0.300	0.300	10/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW - 9 (0-4') (H235623-12)**

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	10/17/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/17/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/17/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/17/2023	ND	5.99	99.8	6.00	1.45		
Total BTEX	<0.300	0.300	10/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/16/2023  
Reported: 10/17/2023  
Project Name: PANAMA 13  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW - 10 (1-4') (H235623-13)**

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	10/17/2023	ND	1.92	96.2	2.00	0.296		
Toluene*	<0.050	0.050	10/17/2023	ND	1.99	99.3	2.00	0.577		
Ethylbenzene*	<0.050	0.050	10/17/2023	ND	2.01	100	2.00	0.636		
Total Xylenes*	<0.150	0.150	10/17/2023	ND	5.99	99.8	6.00	1.45		
Total BTEx	<0.300	0.300	10/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/17/2023	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	10/16/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/16/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/16/2023	ND					

Surrogate: 1-Chlorooctane 92.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/16/2023  
 Reported: 10/17/2023  
 Project Name: PANAMA 13  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW - 11 (1-4') (H235623-14)**

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	10/17/2023	ND	1.92	96.2	2.00	0.296	
Toluene*	<0.050	0.050	10/17/2023	ND	1.99	99.3	2.00	0.577	
Ethylbenzene*	<0.050	0.050	10/17/2023	ND	2.01	100	2.00	0.636	
Total Xylenes*	<0.150	0.150	10/17/2023	ND	5.99	99.8	6.00	1.45	
Total BTEX	<0.300	0.300	10/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/17/2023	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	10/17/2023	ND	167	83.5	200	0.485	
DRO >C10-C28*	<10.0	10.0	10/17/2023	ND	189	94.4	200	1.99	
EXT DRO >C28-C36	<10.0	10.0	10/17/2023	ND					

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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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 cursive script, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476				BILL TO		ANALYSIS REQUEST															
Company Name: NTCOE				P.O. #:																	
Project Manager: Becky Hasel				Company:																	
Address: 209 W McKay St				Attn:																	
City: Carlsbad State: NM Zip: 88220				Address:																	
Phone #: 432924856 Fax #:				City:																	
Project #: 237770 Project Owner: Earth Stone				State: Zip:																	
Project Name: Panama				Phone #:																	
Project Location: Lea County				Fax #:																	
Sampler Name: Cheryl Kumbal																					

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												
H235623		C	X	<input checked="" type="checkbox"/>	10-16	9:30												
1	CS-1A(4')																	
2	CS-4A(4')																	
3	CS-SA(4')																	
4	CS-9A(4')																	
5	CS-13A(4')																	
6	CS-14A(4')																	
7	CS-20A(4')																	
8	SW-S(0-4)																	
9	SW-6(1-4)																	
10	SW-7(1-4)																	

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Relinquished By: [Signature]		Date: 10-16	Received By: [Signature]		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: 1:16pm			Time:		All Results are emailed. Please provide Email address:	
Relinquished By:		Date:	Received By:		REMARKS:	
Time:			Time:			

Delivered By: (Circle One) <input type="radio"/> UPS <input type="radio"/> Bus <input type="radio"/> Other:	Observed Temp. °C -0.4 Corrected Temp. °C	Sample Condition Cool Intact <input checked="" type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) [Signature]	Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C
				Thermometer ID #140 Correction Factor 0°C 24hrs



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> NTCE <b>Project Manager:</b> Bechy Haschel <b>Address:</b> 209 W McLaugh St <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 432-924-8056 <b>Fax #:</b> <b>Project #:</b> 237-770 <b>Project Owner:</b> <del>Earth Stone</del> <b>Project Name:</b> Panama <b>Project Location:</b> Lea County <b>Sampler Name:</b> E. B. Kimball				<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>																	
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		GRAB OR (COMP. # CONTAINERS)		MATRIX		PRESERV.		SAMPLING											
								GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER		ACID/BASE ICE / COOL OTHER		DATE TIME											
		H235623		SW-8(0-4)		1		X		✓		10-16 10:00		chlorides TPH BTEX									
		11		SW-9(0-4)		1																	
		12		SW-10(1-4)		1																	
		13		SW-11(1-4)		1																	
		14																					

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.

Relinquished By:		Date: 10-16		Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Time: 1:14 pm		Received By:		All Results are emailed. Please provide Email address:			
Delivered By: (Circle One)		Observed Temp. °C: -0.4		Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		CHECKED BY: (Initials)		REMARKS:	
Sampler - UPS - Bus - Other:		Corrected Temp. °C:		Cool <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>		Bacteria (only) Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	
				Cool <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Thermometer ID #140		Observed Temp. °C:	
				No <input type="checkbox"/> Yes <input type="checkbox"/>		Correction Factor 0°C		Corrected Temp. °C:	

FORM 006-R 3.4 07/11/23

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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

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November 15, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA 13

Enclosed are the results of analyses for samples received by the laboratory on 10/17/23 15:46.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:15

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
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SW - 12 ( 0-4 )	H235684-01	Soil	17-Oct-23 15:00	17-Oct-23 15:46
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11/15/23 - Client changed the sample ID (see COC). This is the revised report and will replace the one sent on 10/18/23.

Cardinal Laboratories

\*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:15

**SW - 12 ( 0-4 )****H235684-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	3101818	AC	18-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	mg/kg	50	3101806	MS	18-Oct-23	8021B	
Toluene*	<0.050	0.050	mg/kg	50	3101806	MS	18-Oct-23	8021B	
Ethylbenzene*	<0.050	0.050	mg/kg	50	3101806	MS	18-Oct-23	8021B	
Total Xylenes*	<0.150	0.150	mg/kg	50	3101806	MS	18-Oct-23	8021B	
Total BTEX	<0.300	0.300	mg/kg	50	3101806	MS	18-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)		94.1 %		71.5-134	3101806	MS	18-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	mg/kg	1	3101753	MS	18-Oct-23	8015B	
DRO >C10-C28*	<10.0	10.0	mg/kg	1	3101753	MS	18-Oct-23	8015B	
EXT DRO >C28-C36	<10.0	10.0	mg/kg	1	3101753	MS	18-Oct-23	8015B	

Surrogate: 1-Chlorooctane		105 %		48.2-134	3101753	MS	18-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane		116 %		49.1-148	3101753	MS	18-Oct-23	8015B	
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Cardinal Laboratories

\*=Accredited Analyte

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 client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage 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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:15

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 3101818 - 1:4 DI Water</b>									
<b>Blank (3101818-BLK1)</b>					Prepared & Analyzed: 18-Oct-23				
Chloride	ND	16.0	mg/kg						
<b>LCS (3101818-BS1)</b>					Prepared & Analyzed: 18-Oct-23				
Chloride	416	16.0	mg/kg	400		104	80-120		
<b>LCS Dup (3101818-BSD1)</b>					Prepared & Analyzed: 18-Oct-23				
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:15

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3101806 - Volatiles****Blank (3101806-BLK1)**

Prepared &amp; Analyzed: 18-Oct-23

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		92.2	71.5-134			

**LCS (3101806-BS1)**

Prepared &amp; Analyzed: 18-Oct-23

Benzene	2.04	0.050	mg/kg	2.00		102	82.8-130			
Toluene	2.15	0.050	mg/kg	2.00		107	86-128			
Ethylbenzene	2.16	0.050	mg/kg	2.00		108	85.9-128			
m,p-Xylene	4.41	0.100	mg/kg	4.00		110	89-129			
o-Xylene	2.06	0.050	mg/kg	2.00		103	86.1-125			
Total Xylenes	6.47	0.150	mg/kg	6.00		108	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0466		mg/kg	0.0500		93.2	71.5-134			

**LCS Dup (3101806-BSD1)**

Prepared &amp; Analyzed: 18-Oct-23

Benzene	2.00	0.050	mg/kg	2.00		99.8	82.8-130	2.38	15.8	
Toluene	2.07	0.050	mg/kg	2.00		103	86-128	3.80	15.9	
Ethylbenzene	2.05	0.050	mg/kg	2.00		103	85.9-128	5.18	16	
m,p-Xylene	4.16	0.100	mg/kg	4.00		104	89-129	5.88	16.2	
o-Xylene	1.92	0.050	mg/kg	2.00		96.1	86.1-125	6.97	16.7	
Total Xylenes	6.08	0.150	mg/kg	6.00		101	88.2-128	6.22	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0444		mg/kg	0.0500		88.7	71.5-134			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:15

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3101753 - General Prep - Organics****Blank (3101753-BLK1)**

Prepared: 17-Oct-23 Analyzed: 18-Oct-23

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	38.8		mg/kg	50.0		77.5	48.2-134			
Surrogate: 1-Chlorooctadecane	42.9		mg/kg	50.0		85.8	49.1-148			

**LCS (3101753-BS1)**

Prepared: 17-Oct-23 Analyzed: 18-Oct-23

GRO C6-C10	172	10.0	mg/kg	200		86.2	66.4-123			
DRO >C10-C28	160	10.0	mg/kg	200		80.2	66.5-118			
Total TPH C6-C28	333	10.0	mg/kg	400		83.2	77.6-123			
Surrogate: 1-Chlorooctane	40.9		mg/kg	50.0		81.8	48.2-134			
Surrogate: 1-Chlorooctadecane	42.4		mg/kg	50.0		84.9	49.1-148			

**LCS Dup (3101753-BSD1)**

Prepared: 17-Oct-23 Analyzed: 18-Oct-23

GRO C6-C10	173	10.0	mg/kg	200		86.7	66.4-123	0.565	17.7	
DRO >C10-C28	162	10.0	mg/kg	200		80.8	66.5-118	0.840	21	
Total TPH C6-C28	335	10.0	mg/kg	400		83.8	77.6-123	0.698	18.5	
Surrogate: 1-Chlorooctane	44.3		mg/kg	50.0		88.7	48.2-134			
Surrogate: 1-Chlorooctadecane	46.4		mg/kg	50.0		92.7	49.1-148			

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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".

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Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> NTUE <b>Project Manager:</b> Becky Hyskel <b>Address:</b> 209 W McKinley St <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 432-924-8054 <b>Fax #:</b> <b>Project #:</b> 237770 <b>Project Owner:</b> Earthstone <b>Project Name:</b> Panama 13 <b>Project Location:</b> Lea County <b>Sampler Name:</b> Cyler Umbrell				<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>																					
<b>FOR LAB USE ONLY</b>  <b>Lab I.D.</b> H235684 1		<b>Sample I.D.</b> SW-12 (0-4) *		<b>(G)RAB OR (C)OMP.</b> C		<b># CONTAINERS</b> 1		<b>MATRIX</b> GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				<b>PRESERV.</b> ACID/BASE: ICE / COOL OTHER:		<b>SAMPLING</b> DATE 10-17 TIME 3:00		TPH Chlorides BTEX											

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.

<b>Relinquished By:</b> 		<b>Date:</b> 10-17 <b>Time:</b> 3:48 pm		<b>Received By:</b> 		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b>	
<b>Relinquished By:</b>		<b>Date:</b> <b>Time:</b>		<b>Received By:</b>		<b>REMARKS:</b> * Customer Requested ID Change to 11/13/23	
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:		<b>Observed Temp. °C</b> -0.8 <b>Corrected Temp. °C</b>		<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		<b>CHECKED BY:</b> (Initials) TO	
<b>Turnaround Time:</b> Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> <b>Thermometer ID #140</b> <b>Correction Factor 0°C</b>		<b>Bacteria (only) Sample Condition</b> Cool <input type="checkbox"/> Intact <input type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		<b>Observed Temp. °C</b> <b>Corrected Temp. °C</b>		<b>24 hrs</b>	

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

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October 24, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA

Enclosed are the results of analyses for samples received by the laboratory on 10/23/23 14:12.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/23/2023  
 Reported: 10/24/2023  
 Project Name: PANAMA  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/23/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 32 (4') (H235793-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2023	ND	2.31	116	2.00	6.08	
Toluene*	<0.050	0.050	10/24/2023	ND	2.11	106	2.00	3.17	
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.17	109	2.00	5.45	
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.49	108	6.00	6.11	
Total BTX	<0.300	0.300	10/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	960	16.0	10/24/2023	ND	432	108	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	10/24/2023	ND	206	103	200	9.98	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	217	108	200	6.66	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
BECKY HASKELL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706  
Fax To:

Received: 10/23/2023  
Reported: 10/24/2023  
Project Name: PANAMA  
Project Number: 237770  
Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/23/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: CS - 33 (4') (H235793-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	2.31	116	2.00	6.08		
Toluene*	<0.050	0.050	10/24/2023	ND	2.11	106	2.00	3.17		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.17	109	2.00	5.45		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.49	108	6.00	6.11		
Total BTEx	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/24/2023	ND	432	108	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	10/24/2023	ND	206	103	200	9.98	
DRO >C10-C28*	15.7	10.0	10/24/2023	ND	217	108	200	6.66	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/23/2023  
 Reported: 10/24/2023  
 Project Name: PANAMA  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/23/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 34 (4') (H235793-03)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2023	ND	2.31	116	2.00	6.08	
Toluene*	<0.050	0.050	10/24/2023	ND	2.11	106	2.00	3.17	
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.17	109	2.00	5.45	
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.49	108	6.00	6.11	
Total BTX	<0.300	0.300	10/24/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	10/24/2023	ND	432	108	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	10/24/2023	ND	206	103	200	9.98	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	217	108	200	6.66	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 10/23/2023  
 Reported: 10/24/2023  
 Project Name: PANAMA  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 10/23/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW - 13 (0-4') (H235793-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/24/2023	ND	2.31	116	2.00	6.08		
Toluene*	<0.050	0.050	10/24/2023	ND	2.11	106	2.00	3.17		
Ethylbenzene*	<0.050	0.050	10/24/2023	ND	2.17	109	2.00	5.45		
Total Xylenes*	<0.150	0.150	10/24/2023	ND	6.49	108	6.00	6.11		
Total BTEx	<0.300	0.300	10/24/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/24/2023	ND	432	108	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	10/24/2023	ND	206	103	200	9.98	
DRO >C10-C28*	<10.0	10.0	10/24/2023	ND	217	108	200	6.66	
EXT DRO >C28-C36	<10.0	10.0	10/24/2023	ND					

Surrogate: 1-Chlorooctane 88.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

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".

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Celey D. Keene, Lab Director/Quality Manager

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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>UTGE</b> Project Manager: <b>Becky Haskell</b> Address: <b>209 W McKay St</b> City: <b>Carlsbad</b> State: <b>NM</b> Zip: <b>88220</b> Phone #: <b>619-434-8056</b> Fax #: Project #: <b>237770</b> Project Owner: <b>Earthstone</b> Project Name: <b>Panama</b> Project Location: <b>Lee County</b> Sampler Name: <b>Ray W. Kumbali</b>				<b>BILL TO</b> P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:		<b>ANALYSIS REQUEST</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <b>FOR LAB USE ONLY</b>   <div style="display: flex;"> <div style="width: 20%;">Lab I.D.</div> <div style="width: 80%;">Sample I.D.</div> </div> <div style="margin-top: 10px;"> <b>H235793</b>            1 2 3 4         </div> <div style="margin-top: 10px;">           CS-32 (4)            CS-33 (4)            CS-34 (4)            SW-13 (4)         </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 20%;">           # CONTAINERS            GROUNDWATER            WASTEWATER            SOIL            OIL            SLUDGE            OTHER:         </div> <div style="width: 20%;">           MATRIX            GROUNDWATER            WASTEWATER            SOIL            OIL            SLUDGE            OTHER:         </div> <div style="width: 20%;">           PRESERV.            ACID/BASE:            ICE / COOL            OTHER:         </div> <div style="width: 20%;">           SAMPLING            DATE            TIME         </div> </div> <div style="margin-top: 10px;">           DATE: <b>10-23</b> TIME: <b>10:60</b> </div> </div> <div style="width: 70%; font-size: 2em; margin-top: 10px;"> <b>Chlorine's</b>  <b>PH</b>  <b>BTEX</b> </div>									
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Relinquished By: Relinquished By: Date: <b>10-23</b> Time: <b>2:12 pm</b> Received By: Date: Time:				Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address: REMARKS:											
Delivered By: (Circle One) Sampler - UPS - Bus - Other: Observed Temp. °C: <b>-1.1</b> Corrected Temp. °C:				Turnaround Time: <b>Standard</b> <input type="checkbox"/> <b>Rush</b> <input checked="" type="checkbox"/> Thermometer ID #140 Correction Factor 0°C Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No Corrected Temp. °C											

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November 06, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA 13 FED BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 10/26/23 12:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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,

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CS - 11A (4')	H235875-01	Soil	26-Oct-23 00:00	26-Oct-23 12:47
CS - 28A (4')	H235875-02	Soil	26-Oct-23 00:00	26-Oct-23 12:47
CS - 32A (5')	H235875-03	Soil	26-Oct-23 00:00	26-Oct-23 12:47
CS - 35 (1')	H235875-04	Soil	26-Oct-23 00:00	26-Oct-23 12:47
SW - 14 (1-4')	H235875-05	Soil	26-Oct-23 00:00	26-Oct-23 12:47
SW - 15 (0-4')	H235875-06	Soil	26-Oct-23 00:00	26-Oct-23 12:47
SW - 16 (1-4')	H235875-07	Soil	26-Oct-23 00:00	26-Oct-23 12:47
SW - 17 (0-4')	H235875-08	Soil	26-Oct-23 00:00	26-Oct-23 12:47

10/31/23 - Client changed some sample IDs (see COC). This is the revised report and will replace the one sent on 10/27/23.

11/01/23 - Client changed some sample IDs (see COC). This is the 2nd revision of the report and will replace the one sent on 10/31/23.

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

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**CS - 11A (4')**  
**H235875-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>16.0</b>		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Toluene*	<0.050	0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Ethylbenzene*	<0.050	0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total Xylenes*	<0.150	0.150	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total BTEX	<0.300	0.300	mg/kg	50	3102643	AW	26-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)		106 %		71.5-134	3102643	AW	26-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
DRO >C10-C28*	<10.0	10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
EXT DRO >C28-C36	<10.0	10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	

Surrogate: 1-Chlorooctane		88.8 %		48.2-134	3102603	MS	26-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane		82.0 %		49.1-148	3102603	MS	26-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**CS - 28A (4')**  
**H235875-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021****S-04**

Benzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Ethylbenzene*	<b>0.301</b>		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	GC-NC1
Total Xylenes*	<b>1.94</b>		0.150	mg/kg	50	3102643	AW	26-Oct-23	8021B	GC-NC1
Total BTEX	<b>2.28</b>		0.300	mg/kg	50	3102643	AW	26-Oct-23	8021B	GC-NC1

Surrogate: 4-Bromofluorobenzene (PID)		164 %		71.5-134		3102643	AW	26-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<b>94.2</b>		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
DRO >C10-C28*	<b>724</b>		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
EXT DRO >C28-C36	<b>137</b>		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	

Surrogate: 1-Chlorooctane		103 %		48.2-134		3102603	MS	26-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane		101 %		49.1-148		3102603	MS	26-Oct-23	8015B	
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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:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**CS - 32A (5')**  
**H235875-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>1060</b>		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3102643	AW	26-Oct-23	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	71.5-134		3102643	AW	26-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	

<i>Surrogate: 1-Chlorooctane</i>			81.9 %	48.2-134		3102603	MS	26-Oct-23	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			74.5 %	49.1-148		3102603	MS	26-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**CS - 35 (1')**  
**H235875-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	80.0		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3102643	AW	27-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3102643	AW	27-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3102643	AW	27-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3102643	AW	27-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3102643	AW	27-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134 3102643 AW 27-Oct-23 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	

Surrogate: 1-Chlorooctane 81.6 % 48.2-134 3102603 MS 26-Oct-23 8015B

Surrogate: 1-Chlorooctadecane 74.5 % 49.1-148 3102603 MS 26-Oct-23 8015B

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**SW - 14 (1-4")****H235875-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Toluene*	<0.050	0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Ethylbenzene*	<0.050	0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total Xylenes*	<0.150	0.150	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total BTEX	<0.300	0.300	mg/kg	50	3102643	AW	26-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)	108 %	71.5-134	3102643	AW	26-Oct-23	8021B
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B
DRO >C10-C28*	<10.0	10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B
EXT DRO >C28-C36	<10.0	10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B

Surrogate: 1-Chlorooctane	85.9 %	48.2-134	3102603	MS	26-Oct-23	8015B
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Surrogate: 1-Chlorooctadecane	77.9 %	49.1-148	3102603	MS	26-Oct-23	8015B
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**SW - 15 (0-4')****H235875-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3102643	AW	26-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	71.5-134		3102643	AW	26-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	

Surrogate: 1-Chlorooctane			83.7 %	48.2-134		3102603	MS	26-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			76.3 %	49.1-148		3102603	MS	26-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**SW - 16 (1-4")****H235875-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3102643	AW	26-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %		71.5-134	3102643	AW	26-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	

Surrogate: 1-Chlorooctane			84.2 %		48.2-134	3102603	MS	26-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			76.8 %		49.1-148	3102603	MS	26-Oct-23	8015B	
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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**SW - 17 (0-4')****H235875-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3102719	AC	27-Oct-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3102643	AW	26-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3102643	AW	26-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	71.5-134		3102643	AW	26-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3102603	MS	26-Oct-23	8015B	

Surrogate: 1-Chlorooctane			83.4 %	48.2-134		3102603	MS	26-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			76.1 %	49.1-148		3102603	MS	26-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 3102719 - 1:4 DI Water</b>									
<b>Blank (3102719-BLK1)</b>					Prepared & Analyzed: 27-Oct-23				
Chloride	ND	16.0	mg/kg						
<b>LCS (3102719-BS1)</b>					Prepared & Analyzed: 27-Oct-23				
Chloride	384	16.0	mg/kg	400	96.0	80-120			
<b>LCS Dup (3102719-BSD1)</b>					Prepared & Analyzed: 27-Oct-23				
Chloride	432	16.0	mg/kg	400	108	80-120	11.8	20	

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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3102643 - Volatiles****Blank (3102643-BLK1)**

Prepared &amp; Analyzed: 26-Oct-23

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0530		mg/kg	0.0500		106	71.5-134			

**LCS (3102643-BS1)**

Prepared &amp; Analyzed: 26-Oct-23

Benzene	2.04	0.050	mg/kg	2.00		102	82.8-130			
Toluene	2.10	0.050	mg/kg	2.00		105	86-128			
Ethylbenzene	2.11	0.050	mg/kg	2.00		105	85.9-128			
m,p-Xylene	4.28	0.100	mg/kg	4.00		107	89-129			
o-Xylene	2.01	0.050	mg/kg	2.00		101	86.1-125			
Total Xylenes	6.30	0.150	mg/kg	6.00		105	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0496		mg/kg	0.0500		99.2	71.5-134			

**LCS Dup (3102643-BS1)**

Prepared &amp; Analyzed: 26-Oct-23

Benzene	2.01	0.050	mg/kg	2.00		100	82.8-130	1.64	15.8	
Toluene	2.07	0.050	mg/kg	2.00		103	86-128	1.81	15.9	
Ethylbenzene	2.08	0.050	mg/kg	2.00		104	85.9-128	1.17	16	
m,p-Xylene	4.25	0.100	mg/kg	4.00		106	89-129	0.721	16.2	
o-Xylene	2.04	0.050	mg/kg	2.00		102	86.1-125	1.39	16.7	
Total Xylenes	6.29	0.150	mg/kg	6.00		105	88.2-128	0.0421	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0501		mg/kg	0.0500		100	71.5-134			

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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13 FED BATTERY  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
06-Nov-23 16:31

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3102603 - General Prep - Organics****Blank (3102603-BLK1)**

Prepared &amp; Analyzed: 26-Oct-23

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	42.4		mg/kg	50.0		84.8	48.2-134			
Surrogate: 1-Chlorooctadecane	38.6		mg/kg	50.0		77.1	49.1-148			

**LCS (3102603-BS1)**

Prepared &amp; Analyzed: 26-Oct-23

GRO C6-C10	181	10.0	mg/kg	200		90.6	66.4-123			
DRO >C10-C28	147	10.0	mg/kg	200		73.3	66.5-118			
Total TPH C6-C28	328	10.0	mg/kg	400		81.9	77.6-123			
Surrogate: 1-Chlorooctane	42.1		mg/kg	50.0		84.2	48.2-134			
Surrogate: 1-Chlorooctadecane	40.4		mg/kg	50.0		80.7	49.1-148			

**LCS Dup (3102603-BS1)**

Prepared &amp; Analyzed: 26-Oct-23

GRO C6-C10	184	10.0	mg/kg	200		92.0	66.4-123	1.51	17.7	
DRO >C10-C28	169	10.0	mg/kg	200		84.6	66.5-118	14.3	21	
Total TPH C6-C28	353	10.0	mg/kg	400		88.3	77.6-123	7.45	18.5	
Surrogate: 1-Chlorooctane	41.7		mg/kg	50.0		83.5	48.2-134			
Surrogate: 1-Chlorooctadecane	40.6		mg/kg	50.0		81.2	49.1-148			

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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

### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
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 cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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Relinquished By: <i>[Signature]</i>		Date: <i>10.26.23</i>	Received By: <i>[Signature]</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Time: <i>12:47</i>	Received By:		All Results are emailed. Please provide Email address:	
Delivered By: (Circle One)		Date:	CHECKED BY: (Initials)		REMARKS: <i>** Customer requested Sample ID changes. TO 10/30/23 TO 11/1/23</i>	
Sampler - UPS - Bus - Other:		Time:	Observed Temp. °C <i>211</i>		Turnaround Time: <i>24hr</i> Standard <input type="checkbox"/> <i>Rush</i> <input checked="" type="checkbox"/>	
Corrected Temp. °C		Sample Condition	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		Bacteria (only) Sample Condition	
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cool <input type="checkbox"/> Intact <input type="checkbox"/>	
FORM-006 R 3.4 07/11/23				Thermometer ID #140		Observed Temp. °C
				Correction Factor 0°C		Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)

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

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November 15, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA 13

Enclosed are the results of analyses for samples received by the laboratory on 10/31/23 13:23.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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,

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CS 28 B (6')	H235959-01	Soil	31-Oct-23 09:00	31-Oct-23 13:23
VD - 1 (10')	H235959-02	Soil	31-Oct-23 09:00	31-Oct-23 13:23
CS 36 (1')	H235959-03	Soil	31-Oct-23 09:00	31-Oct-23 13:23
CS 37 (1')	H235959-04	Soil	31-Oct-23 09:00	31-Oct-23 13:23
CS 38 (1')	H235959-05	Soil	31-Oct-23 09:00	31-Oct-23 13:23
CS 39 (1')	H235959-06	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 17 A (1-6)	H235959-07	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 18 (4-6)	H235959-08	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 19 (1-6)	H235959-09	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 20 (1-6)	H235959-10	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 21 (0-5)	H235959-11	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 22 (4-5)	H235959-12	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 23 (0-1)	H235959-13	Soil	31-Oct-23 09:00	31-Oct-23 13:23
SW - 14 A (1-5)	H235959-14	Soil	31-Oct-23 09:00	31-Oct-23 13:23

11/03/23 - Client changed the sample ID on -02 (see COC). This is the revised report and will replace the one sent on 11/01/23.

11/15/23 - Client changed the sample ID on -11 (see COC). This is the 2nd revision of the report and will replace the one sent on 11/03/23.

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**CS 28 B (6')**  
**H235959-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			85.2 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			86.4 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**VD - 1 (10')**  
**H235959-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	112		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %		71.5-134	3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			87.7 %		48.2-134	3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			88.1 %		49.1-148	3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**CS 36 (1')**  
**H235959-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			103 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			89.0 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			89.1 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**CS 37 (1')**  
**H235959-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			92.8 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			93.6 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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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:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**CS 38 (1')**  
**H235959-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %		71.5-134	3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			90.5 %		48.2-134	3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			91.1 %		49.1-148	3103126	MS	31-Oct-23	8015B	
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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:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**CS 39 (1')**  
**H235959-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			99.7 %		71.5-134	3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			90.4 %		48.2-134	3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			91.3 %		49.1-148	3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 17 A (1-6)****H235959-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			103 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			84.6 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			86.1 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 18 (4-6)****H235959-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			91.0 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			92.1 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 19 (1-6)****H235959-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			89.0 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			90.7 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 20 (1-6)****H235959-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			88.3 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			89.5 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 21 (0-5)****H235959-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>2080</b>		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %		71.5-134	3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			84.0 %		48.2-134	3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			86.8 %		49.1-148	3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 22 (4-5)****H235959-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>512</b>		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050	0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050	0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150	0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300	0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)	102 %	71.5-134	3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0	10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0	10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane	90.5 %	48.2-134	3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane	92.8 %	49.1-148	3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 23 (0-1)****H235959-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %	71.5-134		3103123	JH	31-Oct-23	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<b>79.3</b>		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<b>30.6</b>		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			89.1 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			94.0 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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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:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**SW - 14 A (1-5)****H235959-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	176		16.0	mg/kg	4	3110108	AC	01-Nov-23	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3103123	JH	31-Oct-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3103123	JH	31-Oct-23	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	71.5-134		3103123	JH	31-Oct-23	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3103126	MS	31-Oct-23	8015B	

Surrogate: 1-Chlorooctane			84.1 %	48.2-134		3103126	MS	31-Oct-23	8015B	
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Surrogate: 1-Chlorooctadecane			86.0 %	49.1-148		3103126	MS	31-Oct-23	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 3110108 - 1:4 DI Water</b>									
<b>Blank (3110108-BLK1)</b>				Prepared & Analyzed: 01-Nov-23					
Chloride	ND	16.0	mg/kg						
<b>LCS (3110108-BS1)</b>				Prepared & Analyzed: 01-Nov-23					
Chloride	416	16.0	mg/kg	400		104 80-120			
<b>LCS Dup (3110108-BSD1)</b>				Prepared & Analyzed: 01-Nov-23					
Chloride	384	16.0	mg/kg	400		96.0 80-120	8.00	20	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3103123 - Volatiles****Blank (3103123-BLK1)**

Prepared &amp; Analyzed: 31-Oct-23

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0501		mg/kg	0.0500		100	71.5-134			

**LCS (3103123-BS1)**

Prepared &amp; Analyzed: 31-Oct-23

Benzene	1.87	0.050	mg/kg	2.00		93.6	82.8-130			
Toluene	1.98	0.050	mg/kg	2.00		99.2	86-128			
Ethylbenzene	2.00	0.050	mg/kg	2.00		100	85.9-128			
m,p-Xylene	4.06	0.100	mg/kg	4.00		101	89-129			
o-Xylene	1.90	0.050	mg/kg	2.00		94.8	86.1-125			
Total Xylenes	5.96	0.150	mg/kg	6.00		99.3	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0480		mg/kg	0.0500		96.0	71.5-134			

**LCS Dup (3103123-BS1)**

Prepared &amp; Analyzed: 31-Oct-23

Benzene	1.89	0.050	mg/kg	2.00		94.7	82.8-130	1.15	15.8	
Toluene	2.00	0.050	mg/kg	2.00		100	86-128	0.802	15.9	
Ethylbenzene	2.02	0.050	mg/kg	2.00		101	85.9-128	0.891	16	
m,p-Xylene	4.10	0.100	mg/kg	4.00		102	89-129	0.917	16.2	
o-Xylene	1.93	0.050	mg/kg	2.00		96.4	86.1-125	1.65	16.7	
Total Xylenes	6.02	0.150	mg/kg	6.00		100	88.2-128	1.15	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0482		mg/kg	0.0500		96.4	71.5-134			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
701 TRADEWINDS BLVD. SUITE C  
MIDLAND TX, 79706

Project: PANAMA 13  
Project Number: 237770  
Project Manager: BECKY HASKELL  
Fax To:

Reported:  
15-Nov-23 09:26

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3103126 - General Prep - Organics****Blank (3103126-BLK1)**

Prepared &amp; Analyzed: 31-Oct-23

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	49.8		mg/kg	50.0		99.6	48.2-134			
Surrogate: 1-Chlorooctadecane	50.3		mg/kg	50.0		101	49.1-148			

**LCS (3103126-BS1)**

Prepared &amp; Analyzed: 31-Oct-23

GRO C6-C10	197	10.0	mg/kg	200		98.5	66.4-123			
DRO >C10-C28	203	10.0	mg/kg	200		102	66.5-118			
Total TPH C6-C28	400	10.0	mg/kg	400		100	77.6-123			
Surrogate: 1-Chlorooctane	52.6		mg/kg	50.0		105	48.2-134			
Surrogate: 1-Chlorooctadecane	52.3		mg/kg	50.0		105	49.1-148			

**LCS Dup (3103126-BS1)**

Prepared &amp; Analyzed: 31-Oct-23

GRO C6-C10	204	10.0	mg/kg	200		102	66.4-123	3.24	17.7	
DRO >C10-C28	200	10.0	mg/kg	200		99.9	66.5-118	1.67	21	
Total TPH C6-C28	403	10.0	mg/kg	400		101	77.6-123	0.776	18.5	
Surrogate: 1-Chlorooctane	52.2		mg/kg	50.0		104	48.2-134			
Surrogate: 1-Chlorooctadecane	51.8		mg/kg	50.0		104	49.1-148			

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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".

---

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>NTGE</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: <u>Geddy Ashel</u>				P.O. #:				<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Chlorides</u>  <u>TPH</u>  <u>BTEX</u> </div> <div style="width: 65%;"></div> </div>											
Address: <u>201 W. Main</u>				Company:															
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>				Attn:															
Phone #: <u>4329248056</u> Fax #:				Address:															
Project #: <u>237770</u> Project Owner: <u>Earthstone</u>				City:															
Project Name: <u>Panama LS</u>				State: Zip:															
Project Location: <u>hca County</u>				Phone #:															
Sampler Name: <u>Cyberkambal</u>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		GRAB OR (COMP. # CONTAINERS		MATRIX		PRESERV.		SAMPLING									
						GROUNDWATER													
						WASTEWATER													
						SOIL													
						OIL													
						SLUDGE													
						OTHER:													
						ACID/BASE:													
						ICE / COOL													
						OTHER:													
										DATE		TIME							
<u>H235959</u>		<u>CS-288 (6')</u>		<u>1</u>		<u>X</u>		<u>✓</u>		<u>10-31</u>		<u>9:00</u>							
<u>* 2</u>		<u>VD-1 CS-328 (10')</u>		<u>1</u>															
<u>3</u>		<u>CS-36 (i)</u>		<u>1</u>															
<u>4</u>		<u>CS-37 (i)</u>		<u>1</u>															
<u>5</u>		<u>CS-38 (i)</u>		<u>1</u>															
<u>6</u>		<u>CS-39 (i)</u>		<u>1</u>															
<u>7</u>		<u>SW-17A (1-6)</u>		<u>1</u>															
<u>8</u>		<u>SW-18 (4-6)</u>		<u>1</u>															
<u>9</u>		<u>SW-19 (1-6)</u>		<u>1</u>															
<u>10</u>		<u>SW-20 (1-6)</u>		<u>1</u>															

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Relinquished By: <u>[Signature]</u>		Date: <u>10-31</u>	Received By: <u>[Signature]</u>		Verbal Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
		Time: <u>1:23pm</u>			All Results are emailed. Please provide Email address:	
Relinquished By:		Date:	Received By:		REMARKS: <u>* Customer requested ID changes to 11/3/23</u>	
		Time:				
Delivered By: (Circle One)		Observed Temp. °C: <u>-1.1</u>	Sample Condition		Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C:	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Bacteria (only) Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	
			CHECKED BY: (Initials) <u>GO</u>		Thermometer ID #140 Correction Factor 0°C	
					Observed Temp. °C Corrected Temp. °C	

FORM 006 R 3.4 07/11/23

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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>NTE</u>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																			
Project Manager: <u>Geddy Haskell</u>		P.O. #:		<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chlorides</div> <div>PH</div> <div>BTEX</div> </div>																			
Address: <u>201 W. Main</u>		Company:																					
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>		Attn:																					
Phone #: <u>4329248056</u> Fax #:		Address:																					
Project #: <u>237770</u> Project Owner: <u>Earthshare</u>		City:																					
Project Name: <u>Panama 13</u>		State: Zip:																					
Project Location: <u>hca County</u>		Phone #:																					
Sampler Name: <u>Cylee Campbell</u>		Fax #:																					
FOR LAB USE ONLY																							
Lab I.D.		Sample I.D.																					
<u>H235959</u>		<u>SW-21(0-2)</u>																					
<u>11</u>		<u>SW-22(4-5)</u>																					
<u>12</u>		<u>SW-23(0-1)</u>																					
<u>13</u>		<u>SW-14A(1-5)</u>																					
<u>14</u>																							

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Relinquished By: <u>[Signature]</u>		Date: <u>10-31</u>		Received By: <u>[Signature]</u>		Verbal Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: <u>1:23 pm</u>		Time: <u>1:23 pm</u>		Time: <u>1:23 pm</u>		All Results are emailed. Please provide Email address:			
Relinquished By:		Date:		Received By:		REMARKS: <u>* Customer requested ID changes. TO 11/13/23</u>			
Time:		Time:		Time:					
Delivered By: (Circle One)		Observed Temp. °C <u>-1.1</u>		Sample Condition		CHECKED BY: (Initials) <u>VO</u>		Turnaround Time: <u>24 hrs</u>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>				Standard <input checked="" type="checkbox"/> Bacteria (only) Sample Condition	
								Cool Intact Observed Temp. °C	
								No Yes No No Corrected Temp. °C	

FORM-000 R 3.4 07/11/23

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November 08, 2023

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: PANAMA

Enclosed are the results of analyses for samples received by the laboratory on 11/03/23 13:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 11/03/2023  
 Reported: 11/08/2023  
 Project Name: PANAMA  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 11/03/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW - 23 A (0-1') (H236053-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/06/2023	ND	1.96	98.1	2.00	1.19	
Toluene*	<0.050	0.050	11/06/2023	ND	2.01	100	2.00	0.947	
Ethylbenzene*	<0.050	0.050	11/06/2023	ND	2.03	101	2.00	1.73	
Total Xylenes*	<0.150	0.150	11/06/2023	ND	6.13	102	6.00	2.34	
Total BTEX	<0.300	0.300	11/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/06/2023	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	11/06/2023	ND	188	94.2	200	0.506	
DRO >C10-C28*	<10.0	10.0	11/06/2023	ND	172	85.8	200	0.468	
EXT DRO >C28-C36	<10.0	10.0	11/06/2023	ND					

Surrogate: 1-Chlorooctane 83.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.7 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

NTG ENVIRONMENTAL  
 BECKY HASKELL  
 701 TRADEWINDS BLVD. SUITE C  
 MIDLAND TX, 79706  
 Fax To:

Received: 11/03/2023  
 Reported: 11/08/2023  
 Project Name: PANAMA  
 Project Number: 237770  
 Project Location: EARTHSTONE - LEA COUNTY

Sampling Date: 11/03/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: CS - 38 A (1') (H236053-02)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/06/2023	ND	1.96	98.1	2.00	1.19	
Toluene*	<0.050	0.050	11/06/2023	ND	2.01	100	2.00	0.947	
Ethylbenzene*	<0.050	0.050	11/06/2023	ND	2.03	101	2.00	1.73	
Total Xylenes*	<0.150	0.150	11/06/2023	ND	6.13	102	6.00	2.34	
Total BTX	<0.300	0.300	11/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/06/2023	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	11/06/2023	ND	188	94.2	200	0.506	
DRO >C10-C28*	<10.0	10.0	11/06/2023	ND	172	85.8	200	0.468	
EXT DRO >C28-C36	<10.0	10.0	11/06/2023	ND					

Surrogate: 1-Chlorooctane 86.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 49.1-148

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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".

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Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 5 of 5

Company Name: <u>NTGE</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: <u>Bethy Taskel</u>				P.O. #:															
Address: <u>209 W McGray St</u>				Company:															
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>				Attn:															
Phone #: <u>432 924 8056</u> Fax #:				Address:															
Project #: <u>237770</u> Project Owner: <u>Earthstone</u>				City:															
Project Name: <u>Panama</u>				State: Zip:															
Project Location: <u>Lea County</u>				Phone #:															
Sampler Name: <u>Tyler Kimball</u>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		GRAB OR (C)OMP.		MATRIX		PRESERV.		SAMPLING		<u>Chlorides</u> <u>PH</u> <u>BTEX</u>							
				# CONTAINERS		GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		ACID/BASE: ICE / COOL OTHER:		DATE TIME									
<u>H236053</u>		<u>SW-23A (O-1)</u> <u>CS-38A (C)</u>		<u>CL</u> <u>CL</u>		<u>X</u> <u>X</u>				<u>11-3</u> <u>1</u>						<u>4:50</u> <u>1</u>			
<u>1</u>																			
<u>2</u>																			

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Relinquished By: <u>[Signature]</u>		Date: <u>11-3-23</u>	Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Time: <u>1:05pm</u>	Received By:		All Results are emailed. Please provide Email address:	
Delivered By: (Circle One)		Observed Temp. °C <u>-1.1</u>	Sample Condition		REMARKS:	
Sampler - UPS - Bus - Other:		Corrected Temp. °C	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
FORM-000-R 3-4 07/11/23			CHECKED BY: (Initials) <u>[Signature]</u>		Thermometer ID #140 Correction Factor 0°C	
			Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No		Corrected Temp. °C	

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)

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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 286795

CONDITIONS

Operator: Earthstone Operating, LLC 300 N. Marienfeld St Ste 1000 Midland, TX 79701	OGRID: 331165
	Action Number: 286795
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Deferral is approved. Remediation Due date will be left open until the site has been plugged and abandoned or a major facility deconstruction takes place.	3/11/2024