

# SITE DELINEATION AND REMEDIATION/RECLAMATION WORKPLAN

Chevron Corporation
Hudgens #001
Lea County, New Mexico
Unit Letter "J", Section 11, Township 16 South, Range 36 East
Latitude 32.93498° North, Longitude 103.32315° West
NMOCD Reference #: nCOH0807129681

Prepared For:

**Chevron Corporation** 6301 Deauville Blvd. Midland, TX 79706

Prepared By:

Etech Environmental & Safety Solutions, Inc.

P.O. Box 62228 Midland, Texas 79711

September 1, 2022

Blake Estep Project Manager

Black Eith

Jeff Kindley, P.G. Senior Project Manager

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### **INTRODUCTION**

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Chevron Corporation, has prepared this *Site Delineation and Remediation/Reclamation Workplan* for the Release Site known as Hudgens #001. The legal description of the Release Site is Unit Letter "J", Section 11, Township 16 South, Range 36 East, in Lea County, New Mexico. The Release Site GPS coordinates are 32.93498° North and 103.32315° West. A "Topographic Map" and "Aerial Proximity Map" are provided as Figures 1 & 2, respectfully.

On February 4, 2008, approximately five (5) barrels of crude oil was released with approximately two (2) barrels of crude oil recovered, for a net loss of three (3) barrels. A copy of the Release Notification and Corrective Action (NMCOD Form C-141) is provided as Appendix A.

Photographic documentation for the Release Site is provided as Appendix B.

### NMOCD SITE CLASSIFICATION

New Mexico Oil Conservation Division (NMOCD) assessment and cleanup levels for hydrocarbon and produced water releases are based on depth to groundwater and karst status and follow the criteria in the revised August 2018 Title 19 Chapter 15 part 29 New Mexico Administrative Code (19.15.29 NMAC) regulations. Groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE), New Mexico Bureau of Geology & Mineral Resources (NMBGMR), and United States Geological Survey (USGS) were accessed to determine if any registered water wells were located within a half-mile of the site. The databases identified fiftytwo (52) water wells within a ½-mile radius. Four (4) water wells are located within one thousand (1,000) feet (ft) of the release. The closest water well located within 500 feet of the release is NMOSE Well # L-00135-POD4 with a depth to water of seventy-five (75) feet below ground surface (bgs). The average depth to water in a half-mile radius is seventy-five (75) feet bgs. The site is listed as being in a low Karst Topography region. See Figure 3 "USGS Well Proximity Map" for well proximity to site. See Appendix C for maps, along with water well data, detailing the site relative to groundwater locations. Since the equipment and tank battery has been removed and a water well is located < 1000 feet from site the Cleanup Standards for reclamation is as follows:

- Benzene 10 mg/Kg (ppm)
- Total BTEX 50 mg/Kg (ppm)
- Total TPH 100 mg/Kg (ppm)
- Chloride 600 mg/Kg (ppm)

### INITIAL SITE ASSESSMENT AND DELINEATION

On January 5, 2022, Etech was onsite to perform the initial assessment and delineation of the release. Two (2) auger holes (Auger Hole 1 and Auger Hole 2) were installed in the inferred spill area to depths ranging from six (6) inches bgs to twelve (12) inches bgs. Refusal was encountered in both Auger Holes at a depth of twelve (12) inches bgs. Samples were submitted to Eurofins in Midland, Texas to be analyzed for Total Petroleum Hydrocarbons (TPH) by EPA method 8015M, chloride by EPA method E300.0, and Benzene, Toluene, Ethylbenzene & Xylenes (BTEX) by EPA method 8021B. A "Site Sample Location Map" is provided as Figure 4.

Laboratory results indicated TPH, and BTEX concentrations were below the NMOCD required remedial action levels (RRAL's) in each of the submitted soil samples (refer to Table 1). However, the chlorides were above the NMOCD reclamation standards of 600 milligram per kilogram (mg/Kg) for all samples.

Laboratory analytical reports are provided in Appendix D.

### SOIL DELINEATION AND REMEDIATION/RECLAMATION WORKPLAN

Etech proposes to complete delineation and remediation/reclamation in accordance with NMOCD rules and regulations which will entail the following:

- Impacted soils will be excavated to appropriate depths based on delineation data and stockpiled on plastic awaiting disposal.
- During excavation activities soils will be field screened utilizing chloride test kits and a PID meter for determination of laboratory sampling and additional excavation, if warranted.
- Upon completion of the excavation, confirmation soil samples will be collected every two hundred (200) square feet from the base and sidewalls (representing no more than 50 linear feet) of the excavated areas. Additional, discrete grab samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary. Samples will be submitted to Permian Basin Environmental Labs of Texas (PBELAB) for analysis of BTEX by EPA Method 8021B, TPH by EPA Method 8015M, and chlorides by EPA method E300.0.
- The impacted soils will be transported off-site for disposal at an NMOCD approved disposal facility.
- Upon completion of delineation, remediation and requisite soil sampling, the site will be backfilled with locally sourced, non-impacted "like" material from an approved off-site facility and brought back to grade.
- A closure report with final C-141 will be submitted to the NMOCD upon completion of remediation activities.

Once the soil delineation and remediation/reclamation work plan has been approved by the NMOCD, Chevron will commence and complete remediation activities ninety (90) days and submit a "Remediation Summary and Site Closure Request Report" to the NMOCD.

### **LIMITATIONS**

Etech has prepared this Closure Request Report to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Etech has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report. This report has been prepared for the benefit of Chevron Corporation. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Etech and/or Chevron Corporation.

### **DISTRIBUTION**

Copy 1: New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, New Mexico 87505

Copy 2: Amy Barnhill

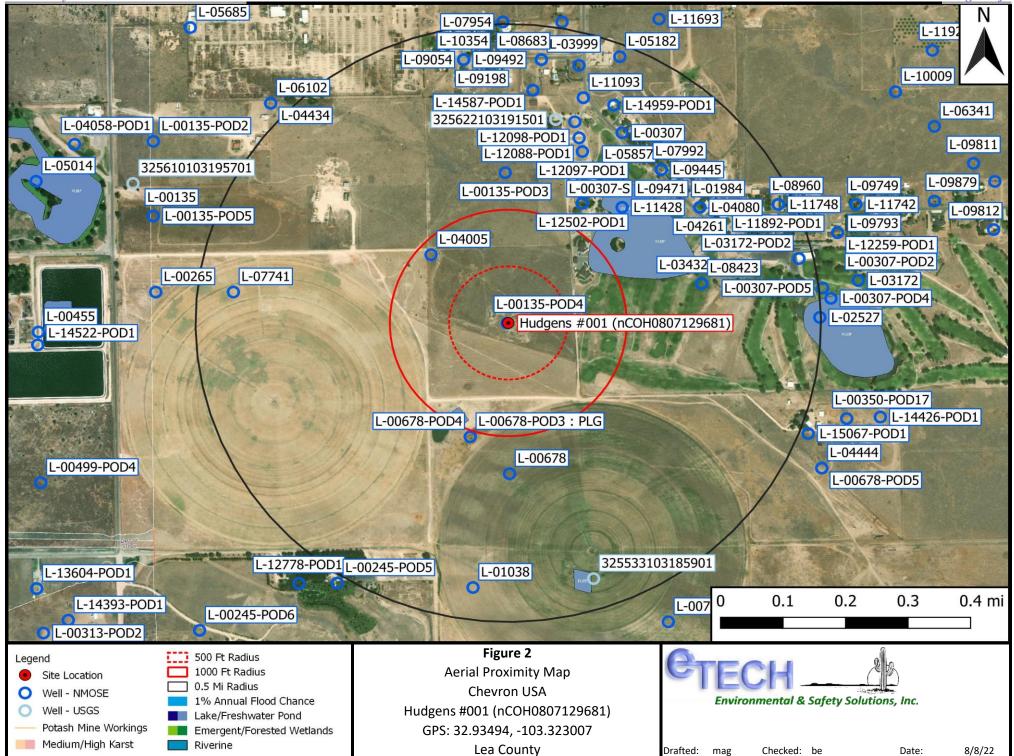
Chevron Corporation 6301 Deauville Blvd. Midland, Texas 79706

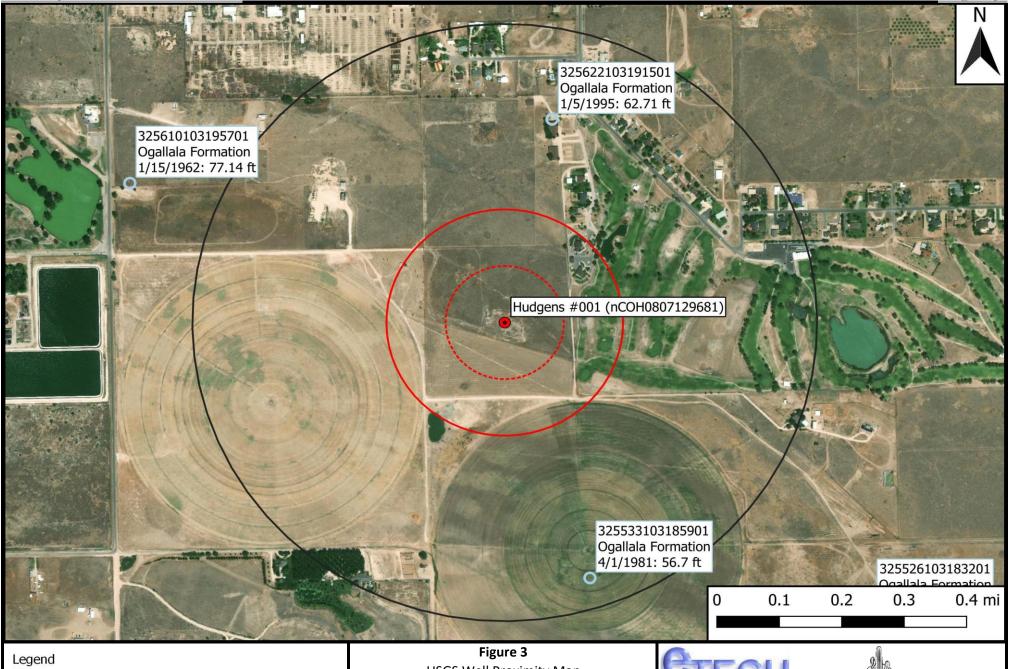
Copy 3: Etech Environmental & Safety Solutions, Inc.

P.O. Box 62228

Midland, Texas 79711

### **FIGURES**





Site Location

Well - USGS

500 Ft Radius
1000 Ft Radius

☐ 0.5 Mi Radius

USGS Well Proximity Map Chevron USA Hudgens #001 (nCOH0807129681) GPS: 32.93494, -103.323007

GPS: 32.93494, -103.323007 Lea County





Environmental & Safety Solutions, Inc.

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Checked: be

Date:

8/8/22



### **TABLES**

### TABLE 1

#### CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL - DELINEATION

#### CHEVRON USA

#### HUDGENS #001

#### LEA COUNTY, NEW MEXICO

				METHODS: SW 846-8021B				METHOD: SW 8015M				E 300.0			
SAMPLE LOCATION	DEPTH	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C <sub>6</sub> -C <sub>12</sub>	TPH DRO C <sub>12</sub> -C <sub>28</sub>	TPH DRO & GRO $\mathrm{C}_6\text{-}\mathrm{C}_{28}$	TPH ORO C <sub>28</sub> -C <sub>35</sub>	TOTAL TPH C <sub>6</sub> -C <sub>35</sub>	CHLORIDE
NMOCD I	RRAL		10 mg/Kg						50 mg/Kg					100 mg/Kg	600 mg/Kg
AH-1	0-6"	1/5/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,400
AH-1	6-12"	1/5/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,670
AH-2	0-6"	1/5/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6,350
AH-2	6-12"	1/5/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,510

Bold and Yellow Highlighted indicates Analyte Above NMOCD Regulatory Limit

ND - Analyte Not Detected at or above the laboratory reporting limit
\*\* - Sample area was eliminated during further excavation activities.

### **APPENDICES**

Appendix A – Release Notification and Corrective Action (Form C-141)

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NCOH0807129681
District RP	
Facility ID	
Application ID	

### **Release Notification**

### **Responsible Party**

Responsible Party: Chevron USA				OGRID: 4	323		
Contact Name: Amy Barnhill				Contact Telephone: 432-687-7108			
Contact email: ABarnhill@chevron.com				Incident # (assigned by OCD)			
Contact mailing addre	ss: 6301 Deauville I	Blvd Midland, Tx	79706	•			
		Location	ı of R	elease So	ource		
Latitude 32.9349823_				Longitude	-103.3231506		
Latitude 32.9349823_		(NAD 83 in d		grees to 5 decin			
Site Name: Hudgens 0	01			Site Type:	Oil		
Date Release Discover	ed: 2-4-2008			API# (if app	plicable)		
Unit Letter Section		Range		Coun	nty		
J 11	16S	36E	Lea				
Surface Owner: State Federal Tribal Private (Name:  Nature and Volume of Release  Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)							
Crude Oil	Volume Release	ed (bbls) 5			Volume Recovered (bbls) 2		
Produced Water	Volume Release	ed (bbls)			Volume Recovered (bbls)		
	Is the concentra	tion of dissolved >10,000 mg/l?	chloride	in the	☐ Yes ☐ No		
Condensate	Volume Release	ed (bbls)			Volume Recovered (bbls)		
☐ Natural Gas	ll Gas Volume Released (Mcf)				Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units				Volume/Weight Recovered (provide units)			
Cause of Release: Historical Spill no details							

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				1

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Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the respon	nsible party consider this a major release?		
☐ Yes ⊠ No				
If YES, was immediate no	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?		
	Initial Ro	esponse		
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury		
The source of the rele	ease has been stopped.			
The impacted area ha	s been secured to protect human health and	the environment.		
Released materials ha	ave been contained via the use of berms or o	likes, absorbent pads, or other containment devices.		
All free liquids and re	ecoverable materials have been removed an	d managed appropriately.		
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.				
regulations all operators are public health or the environ failed to adequately investig addition, OCD acceptance o and/or regulations.	required to report and/or file certain release noti ment. The acceptance of a C-141 report by the C ate and remediate contamination that pose a thre f a C-141 report does not relieve the operator of	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger oCD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws		
Printed Name: Amy Barn	hill	Title: Water Advisor		
Signature:	hill	Date: 9-12-22		
email: ABarnhill@chevro	on.com	Telephone: 432-687-7108		
OCD Only				
Received by:		Date:		

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# **Spill Calculations:**

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### **Site Assessment/Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)			
Did this release impact groundwater or surface water?	☐ Yes ☐ No			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No			
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No			
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No			
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No			
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No			
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No			
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No			
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No			
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No			
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No			
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ☐ No			
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.				
Characterization Report Checklist: Each of the following items must be included in the report.				
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.  Field data  Data table of soil contaminant concentration data  Depth to water determination  Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release  Boring or excavation logs  Photographs including date and GIS information  Topographic/Aerial maps  Laboratory data including chain of custody				

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

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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:		
Signature: Thile	Date: _9-12-22	
email:	Telephone:432-687-7108	
OCD Only		
Received by:	Date:	

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Facility ID		
Application ID		

### **Remediation Plan**

Remediation Plan Checklist: Each of the following items must b	e included in the plan
Detailed description of proposed remediation technique  Scaled sitemap with GPS coordinates showing delineation poin  Estimated volume of material to be remediated  Closure criteria is to Table 1 specifications subject to 19.15.29.  Proposed schedule for remediation (note if remediation plan times)	ts 12(C)(4) NMAC
<u>Deferral Requests Only</u> : Each of the following items must be con	ifirmed as part of any request for deferral of remediation.
deconstruction.	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	al Denied
Contamination does not cause an imminent risk to human health	n, the environment, or groundwater.
	e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name:	Title:
Printed Name:  Signature:	Date: _9-12-22
email:	Telephone: _432-687-7108
OCD Only	
<u>OCD OILLY</u>	
Received by:	Date:
Approved X Approved with Attached Conditions of	Approval
Signature: Ruttam Hall	Date: 12/8/2022

Appendix B – Photographic Documentation

### Photographic Documentation

**Project Name:** Hudgens #001 **Project No:** 15313

# 1/5/22, 5:34 PM Photo No: 1. **Direction Taken:** West Description: View during assessment and delineation event.

# 2. **Direction Taken:** Northeast Description: View during assessment and delineation event.

Photo No:



 $\label{lem:condition} \textbf{Appendix} \ \textbf{C} - \textbf{Depth to Groundwater Information}$ 

GPS: 32.93494, -103.323007 Lea County

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Date:

8/8/22



# Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) (R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

		POD Sub-		Q	Q	Q								W	/ater
POD Number	Code	basin	County	_	_	_		Tws	Rng	X	Y	DistanceDe	epthWellDep	thWater Co	lumn
L 00135 POD4		L	LE		1	4	11	16S	36E	656779	3645322*	2	149	75	74
<u>L 04005</u>		L	LE				11	16S	36E	656583	3645505*	270	95	75	20
<u>L 00678 POD3</u>	R	L	LE	1	3	4	11	16S	36E	656684	3645017*	320	146	67	79
<u>L 00678 POD4</u>	R	L	LE	1	3	4	11	16S	36E	656684	3645017*	320	212	160	52
<u>L 12502 POD1</u>		L	LE	3	4	2	11	16S	36E	656972	3645642	373	195		
<u>L 00135 POD3</u>		L	LE		3	2	11	16S	36E	656774	3645725*	402	125	78	47
<u>L 00678</u>	R	L	LE		3	4	11	16S	36E	656785	3644918*	404	95		
<u>L 00307 S</u>		L	LE	3	4	2	11	16S	36E	657075	3645632*	426	205		
<u>L 11428</u>		L	LE	3	4	2	11	16S	36E	657075	3645632*	426	156		
L 12097 POD1		L	LE	1	4	2	11	16S	36E	656973	3645781	497	170		
<u>L 03432</u>		L	LE	2	2	4	11	16S	36E	657280	3645428*	509	110	68	42
<u>L 08423</u>		L	LE	2	2	4	11	16S	36E	657280	3645428*	509	120	72	48
L 12088 POD1		L	LE	1	4	2	11	16S	36E	656964	3645818 🌑	528	205		
L 12098 POD1		L	LE	2	3	2	11	16S	36E	656953	3645861 🌑	565	170		
<u>L 05717</u>		L	LE		4	2	11	16S	36E	657176	3645733*	569	110	67	43
<u>L 05857</u>		L	LE		4	2	11	16S	36E	657176	3645733*	569	100	65	35
<u>L 07992</u>		L	LE		4	2	11	16S	36E	657176	3645733*	569			
<u>L 09445</u>		L	LE		4	2	11	16S	36E	657176	3645733*	569	110		
<u>L 09471</u>		L	LE		4	2	11	16S	36E	657176	3645733*	569	110	72	38
<u>L 01984</u>		L	LE	4	4	2	11	16S	36E	657275	3645632*	582	95	55	40
<u>L 04080</u>		L	LE	4	4	2	11	16S	36E	657275	3645632*	582	103	75	28
<u>L 04261</u>		L	LE	4	4	2	11	16S	36E	657275	3645632*	582	110	94	16
<u>L 00307</u>		L	LE	1	4	2	11	16S	36E	657075	3645832*	588	100	50	50
<u>L 14587 POD1</u>		L	LE	4	1	2	11	16S	36E	656845	3645945 🌕	627	165	85	80
<u>L 05922</u>		L	LE			2	11	16S	36E	656975	3645926*	634	105	70	35
<u>L 09389</u>		L	LE			2	11	16S	36E	656975	3645926*	634	110		
<u>L 11093</u>		L	LE			2	11	16S	36E	656975	3645926*	634	120	70	50
<u>L 14959 POD1</u>		L	LE	1	4	2	11	16S	36E	657054	3645906	644	217	115	102
<u>L 03999</u>		L	LE	4	1	2	11	16S	36E	656867	3646028*	711	95	65	30
<u>L 08682</u>		L	LE	4	1	2	11	16S	36E	656867	3646028*	711	124	70	54
<u>L 08683</u>		L	LE	4	1	2	11	16S	36E	656867	3646028*	711	123	70	53
<u>L 07741</u>		L	LE	2	1	3	11	16S	36E	656074	3645405*	712	142	78	64
<u>L 12093 POD1</u>		L	LE	4	2	2	11	16S	36E	656964	3646012	713	170		

sejyed by OGP: 9/12/2	2022 12:41 hmwrs oses	:41 PM	us/nmw	rrs/l	Rep	ort	Prox	y?que	eryData	a=%7B"repo	ort"%3A"waterCo	olumn"%2C%0	A"BasinDi	v"%3A"true	36.26 of 58
<u>L 01038</u>		L	LE	1	1	2	14	16S	36E	656691	3644613*	714	90	60	30
<u>L 09053</u>	R	L	LE	3	1	2	11	16S	36E	656667	3646028*	715	175	95	80
<u>L 09054</u>	R	L	LE	3	1	2	11	16S	36E	656667	3646028*	715	135	65	70
<u>L 09054 POD2</u>		L	LE	3	1	2	11	16S	36E	656667	3646028*	715	135	65	70
<u>L 09195</u>		L	LE	3	1	2	11	16S	36E	656667	3646028*	715	135	90	45
<u>L 09198</u>		L	LE	3	1	2	11	16S	36E	656667	3646028*	715	135	90	45
<u>L 09330</u>		L	LE	3	1	2	11	16S	36E	656667	3646028*	715	140	70	70
<u>L 09331</u>		L	LE	3	1	2	11	16S	36E	656667	3646028*	715	140	90	50
<u>L 09340</u>		L	LE	3	1	2	11	16S	36E	656667	3646028*	715	150	90	60
<u>L 09492</u>	R	L	LE	3	1	2	11	16S	36E	656667	3646028*	715	135	65	70
<u>L 10354</u>		L	LE	3	1	2	11	16S	36E	656667	3646028*	715	120	63	57
<u>L 08960</u>		L	LE	3	3	1	12	16S	36E	657477	3645640*	764	112	72	40
<u>L 11748</u>		L	LE	3	3	1	12	16S	36E	657477	3645640*	764	143	73	70
L 11892 POD1		L	LE	3	3	1	12	16S	36E	657477	3645640*	764	130	70	60
L 03172 POD2		L	LE	2	1	3	12	16S	36E	657530	3645494	768	210		
<u>L 05182</u>		L	LE	3	2	2	11	16S	36E	657069	3646036*	769	110	75	35
<u>L 02527</u>		L	LE		1	3	12	16S	36E	657584	3645337*	802	110	55	55

Average Depth to Water:

75 feet 50 feet

Minimum Depth:

Maximum Depth:

160 feet

**Record Count:** 50

<u>UTMNAD83 Radius Search (in meters):</u>

**Easting (X):** 656781.8 **Northing (Y):** 3645322 **Radius:** 804.67

#### \*UTM location was derived from PLSS - see Help

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

8/8/22 10:12 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number

Number Q64 Q16 Q4 Sec Tws Rng

X Y

L 00135 POD4

1 4 11 16S 36E

656779 3645322\*

9

**Driller License:** 421

**Driller Company:** 

GLENN'S WATER WELL SERVICE

**Driller Name:** 

**Drill Start Date:** 09/14/1970

**Drill Finish Date:** 

09/16/1970

Plug Date:

\_\_\_\_

Log File Date:

10/30/1970

PCW Rcv Date:

01/13/1971

Source:

Shallow

Pump Type:

TURBIN

Pipe Discharge Size:

4

**Estimated Yield:** 

500 GPM

**Casing Size:** 

Depth Well:

149 feet

Depth Water:

75 feet

Water Bearing Stratifications:

Top Bottom Description

75

149 Sandstone/Gravel/Conglomerate

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8/8/22 9:31 AM

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

656684

Well Tag POD Number Q64 Q16 Q4 Sec Tws Rng

3 4 11 16S 36E

X Y

3645017\*

Driller License: 183 Driller Company: CAYTON WATER WELL DRILLING CO

**Driller Name:** JACK CAYTON

L 00678 POD3

 Drill Start Date:
 01/01/1957
 Drill Finish Date:
 01/31/1957
 Plug Date:
 03/25/1957

 Log File Date:
 05/02/1957
 PCW Rev Date:
 Source:
 Shallow

Pump Type: Pipe Discharge Size: Estimated Yield:

Casing Size: 16.00 Depth Well: 146 feet Depth Water: 67 feet

Water Bearing Stratifications: Top Bottom Description
67 72 Sandstone/Gravel/Conglomerate

Casing Perforations: Top Bottom
65 146

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8/8/22 9:31 AM

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng X

L 00678 POD4 16S 36E 4 11

656684 3645017\*

**Driller License: Driller Company:** PRUETT, OTIS H. 281

**Driller Name:** OTIS H. PRUETT

**Drill Start Date:** 05/16/1960 **Drill Finish Date:**  05/25/1960 Plug Date:

Log File Date: 10/25/1960 PCW Rcv Date: 10/28/1960

Source: Shallow

**Pump Type: TURBIN** Pipe Discharge Size: **Estimated Yield: Casing Size:** 14.00 Depth Well: 212 feet

800 GPM Depth Water: 160 feet

Water Bearing Stratifications: Top **Bottom Description** 

> 74 80 Other/Unknown 148 202 Other/Unknown

**Casing Perforations:** Top **Bottom** 

> 128 212

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

8/8/22 9:31 AM

<sup>\*</sup>UTM location was derived from PLSS - see Help



# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

11

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng

656583 16S 36E

 $\mathbf{X}$ 

3645505\*

**Driller License:** 

L 04005

**Driller Company:** 

TATUM CLAUDE E.

**Driller Name:** 

09/20/1958

**Drill Finish Date:** 

09/20/1958

Plug Date:

**Drill Start Date:** Log File Date:

10/27/1958

**PCW Rcv Date:** 

Shallow

**Pump Type:** 

Source: **Estimated Yield:** 

**Casing Size:** 

Pipe Discharge Size:

Depth Well:

95 feet

Depth Water:

75 feet

Water Bearing Stratifications:

Top Bottom Description

75

95 Sandstone/Gravel/Conglomerate

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

8/8/22 9:31 AM

<sup>\*</sup>UTM location was derived from PLSS - see Help



USGS Home Contact USGS Search USGS

### **National Water Information System: Web Interface**

USGS Water Resources	Data Category:		Geographic Area:			
03d3 Water Resources	Groundwater	~	United States	<b>~</b>	GO	
				,		

Click for News Bulletins

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

### Search Results -- 1 sites found

Agency code = usgs site\_no list = • 325533103185901

### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

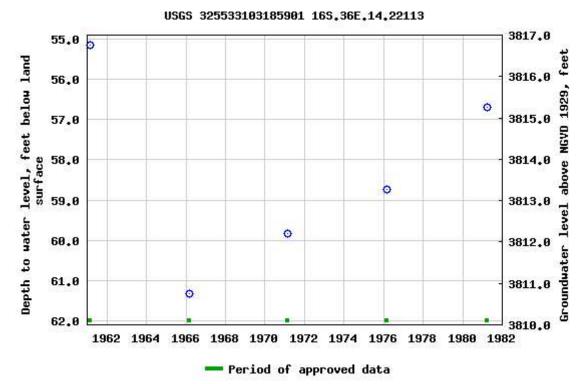
### USGS 325533103185901 16S.36E.14.22113

Available data for this site Groundwater: Field measurements 
GO

Lea County, New Mexico
Hydrologic Unit Code 12080003
Latitude 32°55'43", Longitude 103°19'13" NAD27
Land-surface elevation 3,872.00 feet above NGVD29
The depth of the well is 84 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Ogallala Formation (1210GLL) local aquifer.

### **Output formats**

Table of data	
Tab-separated data	
Graph of data	
Reselect period	



Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

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

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2022-08-08 11:22:15 EDT

0.58 0.51 nadww01





USGS Home Contact USGS Search USGS

### **National Water Information System: Web Interface**

USGS Water Resources	Data Category:	Geographic Area:		
	Groundwater ~	United States	~	GO
			`	

Click for News Bulletins

Table of data

Graph of data

Reselect period

Tab-separated data

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

### Search Results -- 1 sites found

**Agency code =** usgs **site\_no list =** • 325622103191501

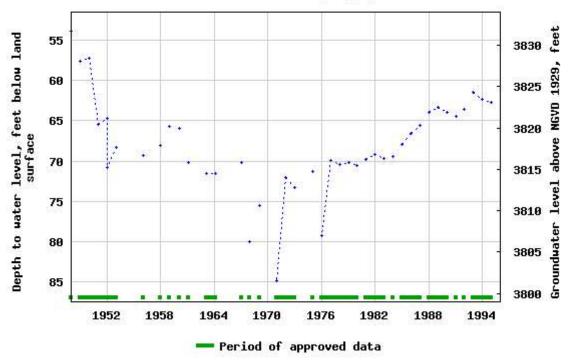
### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

### USGS 325622103191501 16S.36E.11.241131

Available data for this site	Groundwater:	Field measurements	<b>✓</b> GO	
Lea County, New Mexico				
Hydrologic Unit Code 1208	30003			
Latitude 32°56'23", Longi	tude 103°1	9'16" NAD27		
Land-surface elevation 3,8	386.00 feet	above NGVD29		
The depth of the well is 10	00 feet belov	w land surface.		
This well is completed in the	he High Plai	ns aquifer (N100	HGHPLN)	national aquifer.
This well is completed in the	he Ogallala	Formation (1210	GLL) local	aquifer.
	0	utput formats		

### USGS 325622103191501 165,36E,11,241131



Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

Questions about sites/data?
Feedback on this web site
Automated retrievals
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Data Tips
Explanation of terms
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U.S. Department of the Interior | U.S. Geological Survey

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

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2022-08-08 11:22:16 EDT

0.58 0.51 nadww01



Appendix D – Analytical Reports



# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-9962-1

Client Project/Site: Hudgens #001 (9681)

For:

Etech Environmental & Safety Solutions PO BOX 62228 Midland, Texas 79711

Attn: Brandon Wilson

MAMER

Authorized for release by: 1/13/2022 8:23:52 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS .....

Review your project results through

....



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 12/8/2022 8:30:58 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

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3

6

0

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4 4

12

13

Laboratory Job ID: 880-9962-1

Client: Etech Environmental & Safety Solutions Project/Site: Hudgens #001 (9681)

# **Table of Contents**

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12

TS

### Definitions/Glossary

Client: Etech Environmental & Safety Solutions

Job ID: 880-9962-1

Project/Site: Hudgens #001 (9681)

**Qualifiers** 

**GC VOA** 

 Qualifier
 Qualifier Description

 F1
 MS and/or MSD recovery exceeds control limits.

 S1+
 Surrogate recovery exceeds control limits, high biased.

 U
 Indicates the analyte was analyzed for but not detected.

GC Semi VOA

U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Eisted under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery

CFL Contains Free Liquid

CFU Colony Forming Unit

CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

**Eurofins Midland** 

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#### **Case Narrative**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

Job ID: 880-9962-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-9962-1

#### Receipt

The samples were received on 1/7/2022 1:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was  $5.4^{\circ}$ C

#### GC VOA

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

#### GC Semi VOA

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

#### HPI C/IC

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

2

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13

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-9962-1

Matrix: Solid

Job ID: 880-9962-1

Date Collected: 01/05/22 16:08 Date Received: 01/07/22 13:05

Sample Depth: 0-6"

_
Method: 8021B - Volatile Organic Compounds (GC
Analyte Result Qu

Method: 8021B - Volatile Orga	wethod: 8021B - Volatile Organic Compounds (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	<0.00198	U	0.00198		mg/Kg		01/07/22 14:31	01/11/22 00:44	1		
Toluene	<0.00198	U	0.00198		mg/Kg		01/07/22 14:31	01/11/22 00:44	1		
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/07/22 14:31	01/11/22 00:44	1		
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/07/22 14:31	01/11/22 00:44	1		
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/07/22 14:31	01/11/22 00:44	1		
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/07/22 14:31	01/11/22 00:44	1		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130				01/07/22 14:31	01/11/22 00:44	1		
1,4-Difluorobenzene (Surr)	93		70 - 130				01/07/22 14:31	01/11/22 00:44	1		

Method: Total BTEX - Total BTEX Calculation										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
l	Total BTEX	<0.00396	U	0.00396		mg/Kg			01/11/22 12:59	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<50.0	U	50.0		mg/Kg			01/11/22 14:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 17:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 17:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 17:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130	01/07/22 14:36	01/08/22 17:52	1
o-Terphenyl	91		70 - 130	01/07/22 14:36	01/08/22 17:52	1
<del>-</del>						

wethod: 300.0 - Anions, ion Unrom	iatograpny - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7400	49.9	mg/Kg			01/12/22 14:58	10

Client Sample ID: Auger Hole 1 Lab Sample ID: 880-9962-2

Date Collected: 01/05/22 16:10 **Matrix: Solid** Date Received: 01/07/22 13:05

Sample Depth: 6-12"

N	Method:	8021R	- Volatile	Organic	Compounds	(GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/07/22 14:31	01/11/22 01:04	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/07/22 14:31	01/11/22 01:04	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/07/22 14:31	01/11/22 01:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/07/22 14:31	01/11/22 01:04	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/07/22 14:31	01/11/22 01:04	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/07/22 14:31	01/11/22 01:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130				01/07/22 14:31	01/11/22 01:04	

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-9962-3

**Matrix: Solid** 

Date Collected: 01/05/22 16:10 Date Received: 01/07/22 13:05

Sample Depth: 6-12"

Lab Sample ID: 880-9962-2

Matrix: Solid

Job ID: 880-9962-1

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	84	70 - 130	01/07/22 14:31	01/11/22 01:04	1

**Method: Total BTEX - Total BTEX Calculation** 

Analyte	Result	Qualifier	RL	MDL	Unit	I	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			_	01/11/22 12:59	1

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

Analyte	•	•	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH			<49.9	IJ	49.9		ma/Ka			01/11/22 14:19	1	

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 18:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 18:12	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80	70 - 130	01/07/22 14:36	01/08/22 18:12	1
o-Terphenyl	91	70 - 130	01/07/22 14:36	01/08/22 18:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
l	Chloride	5670		50.0		mg/Kg			01/12/22 15:08	10

Client Sample ID: Auger Hole 2

Date Collected: 01/05/22 16:12 Date Received: 01/07/22 13:05

Sample Depth: 0-6"

Mathadi 0004D	Valatile Overen	ic Compounds (GC)
Memoo: Auzib	- voianie Urdan	ic Compounds (GC)

Motifica. Coz ID Volutilo Orga	ino compoundo (	(33)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 02:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 02:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 02:26	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/07/22 14:31	01/11/22 02:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 02:26	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/07/22 14:31	01/11/22 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130				01/07/22 14:31	01/11/22 02:26	1
1,4-Difluorobenzene (Surr)	107		70 - 130				01/07/22 14:31	01/11/22 02:26	1

Method:	Total R	TFY - T	ntal RT	FX Calcu	ılation

Analyte	Result	Qualifier	RL	MDL	Unit	)	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00401	U	0.00401		ma/Ka			01/11/22 12:59	1

Method: 8015 NM - Diesel	Range Organics	(DRO)	(GC)	١
Mictilioa. 00 10 Min - Diesei	Range Organics	(Divo)	$(\mathbf{c})$	ı.

Analyte	•	•	Result	Qualifier	RL	MDL	Unit	I	D	Prepared	Analyzed	Dil Fac
Total TPH			<49.9	U	49.9		mg/Kg				01/11/22 14:19	1

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Date Collected: 01/05/22 16:12

**Client Sample ID: Auger Hole 2** 

Lab Sample ID: 880-9962-3

Lab Sample ID: 880-9962-4

Matrix: Solid

Matrix: Solid

Job ID: 880-9962-1

Date Received: 01/07/22 13:05 Sample Depth: 0-6"

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 18:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 18:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 18:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130				01/07/22 14:36	01/08/22 18:53	1
o-Terphenyl	91		70 - 130				01/07/22 14:36	01/08/22 18:53	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
						_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: Auger Hole 2

Date Collected: 01/05/22 16:14

Date Received: 01/07/22 13:05

Sample Depth: 6-12"

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/07/22 14:31	01/11/22 02:46	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/07/22 14:31	01/11/22 02:46	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/07/22 14:31	01/11/22 02:46	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/07/22 14:31	01/11/22 02:46	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/07/22 14:31	01/11/22 02:46	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/07/22 14:31	01/11/22 02:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130				01/07/22 14:31	01/11/22 02:46	1
1,4-Difluorobenzene (Surr)	111		70 - 130				01/07/22 14:31	01/11/22 02:46	1
Method: Total BTEX - Total BTEX	Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/11/22 12:59	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)							
Method: 8015 NM - Diesel Range Analyte		O) (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	RL	MDL	Unit mg/Kg	D	Prepared	Analyzed 01/11/22 14:19	Dil Fac
Analyte	Result   <50.0	Qualifier U		MDL		<u>D</u>	Prepared		
Analyte Total TPH	Result <50.0	Qualifier U				<u>D</u>	Prepared Prepared		1
Analyte Total TPH  Method: 8015B NM - Diesel Rang	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0		mg/Kg			01/11/22 14:19	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0  e Organics (Dige Result	Qualifier U  RO) (GC) Qualifier U	50.0		mg/Kg		Prepared	01/11/22 14:19  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	Result <pre></pre> <pre></pre>	Qualifier U  RO) (GC) Qualifier U	50.0 RL 50.0		mg/Kg  Unit mg/Kg		Prepared 01/07/22 14:36	01/11/22 14:19  Analyzed  01/08/22 19:13	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U	50.0 RL 50.0 50.0		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 01/07/22 14:36 01/07/22 14:36	01/11/22 14:19  Analyzed  01/08/22 19:13  01/08/22 19:13	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U	50.0  RL 50.0  50.0  50.0		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 01/07/22 14:36 01/07/22 14:36 01/07/22 14:36	Analyzed 01/08/22 19:13 01/08/22 19:13	

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-9962-4

Matrix: Solid

Date Collected: 01/05/22 16:14 Date Received: 01/07/22 13:05

Sample Depth: 6-12"

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3510		24.8		mg/Kg			01/12/22 15:28	5

5

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## **Surrogate Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED4	DED 74	Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-9960-A-1-A MS	Matrix Spike	108	108	
880-9960-A-1-B MSD	Matrix Spike Duplicate	103	99	
880-9962-1	Auger Hole 1	131 S1+	93	
880-9962-2	Auger Hole 1	123	84	
880-9962-3	Auger Hole 2	138 S1+	107	
880-9962-4	Auger Hole 2	139 S1+	111	
LCS 880-16279/1-A	Lab Control Sample	101	99	
LCSD 880-16279/2-A	Lab Control Sample Dup	105	95	
MB 880-16220/5-A	Method Blank	98	106	
MB 880-16279/5-A	Method Blank	108	97	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-9942-A-1-C MS	Matrix Spike	77	76	
880-9942-A-1-D MSD	Matrix Spike Duplicate	85	85	
880-9962-1	Auger Hole 1	80	91	
880-9962-2	Auger Hole 1	80	91	
880-9962-3	Auger Hole 2	78	91	
880-9962-4	Auger Hole 2	90	105	
LCS 880-16281/2-A	Lab Control Sample	103	106	
_CSD 880-16281/3-A	Lab Control Sample Dup	108	112	
MB 880-16281/1-A	Method Blank	82	98	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

### QC Sample Results

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-16220/5-A

**Matrix: Solid** Analysis Batch: 16342

Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene

o-Xylene Xylenes, Total Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 16220

ME	MB						•	
Resul	t Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
< 0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
<0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
<0.00400	U	0.00400		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
<0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1

mg/Kg

MDL Unit

mg/Kg

MB MB

MR MR

<0.00200 U

Result Qualifier

<0.00400 U

Surrogate	%Recovery (	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/07/22 09:17	01/10/22 10:46	1
1,4-Difluorobenzene (Surr)	106		70 - 130	01/07/22 09:17	01/10/22 10:46	1

0.00400

Lab Sample ID: MB 880-16279/5-A

**Matrix: Solid** 

Analyte

Benzene

**Analysis Batch: 16342** 

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

Analyzed

01/10/22 21:39

01/10/22 10:46

01/07/22 09:17

Prepared

01/07/22 14:31

Prep Batch: 16279

Dil Fac

Toluene <0.00200 U 0.00200 mg/Kg 01/07/22 14:31 01/10/22 21:39 Ethylbenzene <0.00200 U 0.00200 mg/Kg 01/07/22 14:31 01/10/22 21:39 01/07/22 14:31 01/10/22 21:39 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 01/10/22 21:39 o-Xylene <0.00200 U 0.00200 mg/Kg 01/07/22 14:31 Xylenes, Total <0.00400 U 0.00400 01/07/22 14:31 01/10/22 21:39 mg/Kg

0.00200

RL

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/07/22 14:31	01/10/22 21:39	1
1,4-Difluorobenzene (Surr)	97		70 - 130	01/07/22 14:31	01/10/22 21:39	1

Lab Sample ID: LCS 880-16279/1-A

**Matrix: Solid** 

Analysis Batch: 16342

Client Sample ID: Lab Control Sample

70 - 130

84

Prep Type: Total/NA Prep Batch: 16279

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09238 mg/Kg 92 70 - 130 Toluene 0.100 0.08627 mg/Kg 86 70 - 130 Ethylbenzene 0.100 0.08328 mg/Kg 83 70 - 130 m-Xylene & p-Xylene 0.200 0.1716 mg/Kg 86 70 - 130

0.100

Chiles

0.08407

LCCD LCCD

mg/Kg

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1.4-Difluorobenzene (Surr)	99	70 - 130

Lab Sample ID: LCSD 880-16279/2-A

**Matrix: Solid** 

o-Xylene

**Analysis Batch: 16342** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 16279

	Spike	LCSD LCSD				70Kec.		KFD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09219	mg/Kg		92	70 - 130	0	35	

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### QC Sample Results

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-16279/2-A **Matrix: Solid** 

Analysis Batch: 16342

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 16279

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08649		mg/Kg		86	70 - 130	0	35
Ethylbenzene	0.100	0.08511		mg/Kg		85	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1746		mg/Kg		87	70 - 130	2	35
o-Xylene	0.100	0.08698		mg/Kg		87	70 - 130	3	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-9960-A-1-A MS

**Matrix: Solid** 

Analysis Batch: 16342

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 16279

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U F1	0.100	0.06756	F1	mg/Kg		68	70 - 130	
Toluene	<0.00198	U F1	0.100	0.05938	F1	mg/Kg		59	70 - 130	
Ethylbenzene	<0.00198	U F1	0.100	0.05428	F1	mg/Kg		54	70 - 130	
m-Xylene & p-Xylene	<0.00396	U F1	0.200	0.1102	F1	mg/Kg		55	70 - 130	
o-Xylene	<0.00198	U F1	0.100	0.05533	F1	mg/Kg		55	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	108	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: 880-9960-A-1-B MSD

**Matrix: Solid** 

Analysis Batch: 16342

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 16279

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00198	U F1	0.0998	0.07272		mg/Kg		73	70 - 130	7	35
Toluene	<0.00198	U F1	0.0998	0.06335	F1	mg/Kg		63	70 - 130	6	35
Ethylbenzene	<0.00198	U F1	0.0998	0.05857	F1	mg/Kg		58	70 - 130	8	35
m-Xylene & p-Xylene	<0.00396	U F1	0.200	0.1183	F1	mg/Kg		59	70 - 130	7	35
o-Xylene	<0.00198	U F1	0.0998	0.05836	F1	mg/Kg		58	70 - 130	5	35

MSD MSD

Surrogate	76Recovery	Qualifier	LIIIIII
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-16281/1-A

**Matrix: Solid** 

Analysis Batch: 16324

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

Prep Batch: 16281

мв мв Result Qualifier MDL Unit Prepared <50.0 U 50.0 01/07/22 14:36 01/08/22 13:27 Gasoline Range Organics mg/Kg

(GRO)-C6-C10

### **QC Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

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

Lab Sample ID: MB 880-16281/1-A Matrix: Solid

Lab Sample ID: LCS 880-16281/2-A

**Matrix: Solid** 

Analysis Batch: 16324

Analysis Batch: 16324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 16281

ı									
	Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		01/07/22 14:36	01/08/22 13:27	1
	C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/07/22 14:36	01/08/22 13:27	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	01/07/22 14:36	01/08/22 13:27	1
o-Terphenyl	98		70 - 130	01/07/22 14:36	01/08/22 13:27	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 16281

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 792.8 79 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1073 mg/Kg 107 70 - 130 C10-C28)

LCS LCS

ICED ICED

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	103	70 _ 130
o-Terphenyl	106	70 - 130

Lab Sample ID: LCSD 880-16281/3-A

Matrix: Solid Analysis Batch: 16324 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 16281

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	876.3		mg/Kg		88	70 - 130	10	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1179		mg/Kg		118	70 - 130	9	20	
C10-C28)										

C10-C28)

	LC3D	LUSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 880-9942-A-1-C MS

Released to Imaging: 12/8/2022 8:30:58 AM

Matrix: Solid

Analysis Batch: 16324

Client Sample ID: Matrix Spike

Trop Type: Totalities

Prep Batch: 16281

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	843.3		mg/Kg		83	70 - 130	
Diesel Range Organics (Over	<49.9	U	996	1076		mg/Kg		105	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	76		70 - 130

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nple ID: Matrix Spike Prep Type: Total/NA Lab Sample ID: 880-9942-A-1-D MSD

### QC Sample Results

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

70 - 130

121

Prep Batch: 16281

13

Analysis Batch: 16324 Sample Sample Spike MSD MSD RPD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U 999 966.2 mg/Kg 95 70 - 130 14 20 (GRO)-C6-C10

1231

mg/Kg

C10-C28)

**Matrix: Solid** 

MSD MSD

<49.9 U

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

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	85		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-16437/1-A Client Sample ID: Method Blank

**Matrix: Solid Prep Type: Soluble** 

999

Analysis Batch: 16545

Diesel Range Organics (Over

мв мв

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/K	9		01/12/22 10:42	1

Lab Sample ID: LCS 880-16437/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 16545** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	257.9		mg/Kg		103	90 - 110	

Lab Sample ID: LCSD 880-16437/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 16545** 

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	260.2		mg/Kg		104	90 - 110	1	20	

Lab Sample ID: 880-9960-A-4-D MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 16545** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	15.0		250	290.0		ma/Ka	_	110	90 110	

Lab Sample ID: 880-9960-A-4-E MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Analysis Batch: 16545

Analysis Daton. 10040											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	15.0		250	286.0		ma/Ka		108	90 - 110		20

**Eurofins Midland** 

**Prep Type: Soluble** 

## **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

#### **GC VOA**

### Prep Batch: 16220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-16220/5-A	Method Blank	Total/NA	Solid	5035	

#### Prep Batch: 16279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-1	Auger Hole 1	Total/NA	Solid	5035	
880-9962-2	Auger Hole 1	Total/NA	Solid	5035	
880-9962-3	Auger Hole 2	Total/NA	Solid	5035	
880-9962-4	Auger Hole 2	Total/NA	Solid	5035	
MB 880-16279/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-16279/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-16279/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9960-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-9960-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### **Analysis Batch: 16342**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-1	Auger Hole 1	Total/NA	Solid	8021B	16279
880-9962-2	Auger Hole 1	Total/NA	Solid	8021B	16279
880-9962-3	Auger Hole 2	Total/NA	Solid	8021B	16279
880-9962-4	Auger Hole 2	Total/NA	Solid	8021B	16279
MB 880-16220/5-A	Method Blank	Total/NA	Solid	8021B	16220
MB 880-16279/5-A	Method Blank	Total/NA	Solid	8021B	16279
LCS 880-16279/1-A	Lab Control Sample	Total/NA	Solid	8021B	16279
LCSD 880-16279/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	16279
880-9960-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	16279
880-9960-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	16279

#### **Analysis Batch: 16518**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batc	h
880-9962-1	Auger Hole 1	Total/NA	Solid	Total BTEX	
880-9962-2	Auger Hole 1	Total/NA	Solid	Total BTEX	
880-9962-3	Auger Hole 2	Total/NA	Solid	Total BTEX	
880-9962-4	Auger Hole 2	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

### Prep Batch: 16281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-1	Auger Hole 1	Total/NA	Solid	8015NM Prep	
880-9962-2	Auger Hole 1	Total/NA	Solid	8015NM Prep	
880-9962-3	Auger Hole 2	Total/NA	Solid	8015NM Prep	
880-9962-4	Auger Hole 2	Total/NA	Solid	8015NM Prep	
MB 880-16281/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-16281/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-16281/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-9942-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-9942-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 16324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-1	Auger Hole 1	Total/NA	Solid	8015B NM	16281

**Eurofins Midland** 

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## **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

### **GC Semi VOA (Continued)**

### **Analysis Batch: 16324 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-2	Auger Hole 1	Total/NA	Solid	8015B NM	16281
880-9962-3	Auger Hole 2	Total/NA	Solid	8015B NM	16281
880-9962-4	Auger Hole 2	Total/NA	Solid	8015B NM	16281
MB 880-16281/1-A	Method Blank	Total/NA	Solid	8015B NM	16281
LCS 880-16281/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	16281
LCSD 880-16281/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	16281
880-9942-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	16281
880-9942-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	16281

#### Analysis Batch: 16554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-1	Auger Hole 1	Total/NA	Solid	8015 NM	
880-9962-2	Auger Hole 1	Total/NA	Solid	8015 NM	
880-9962-3	Auger Hole 2	Total/NA	Solid	8015 NM	
880-9962-4	Auger Hole 2	Total/NA	Solid	8015 NM	

#### HPLC/IC

#### Leach Batch: 16437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-1	Auger Hole 1	Soluble	Solid	DI Leach	
880-9962-2	Auger Hole 1	Soluble	Solid	DI Leach	
880-9962-3	Auger Hole 2	Soluble	Solid	DI Leach	
880-9962-4	Auger Hole 2	Soluble	Solid	DI Leach	
MB 880-16437/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-16437/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-16437/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9960-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-9960-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Analysis Batch: 16545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9962-1	Auger Hole 1	Soluble	Solid	300.0	16437
880-9962-2	Auger Hole 1	Soluble	Solid	300.0	16437
880-9962-3	Auger Hole 2	Soluble	Solid	300.0	16437
880-9962-4	Auger Hole 2	Soluble	Solid	300.0	16437
MB 880-16437/1-A	Method Blank	Soluble	Solid	300.0	16437
LCS 880-16437/2-A	Lab Control Sample	Soluble	Solid	300.0	16437
LCSD 880-16437/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	16437
880-9960-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	16437
880-9960-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	16437

**Eurofins Midland** 

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Job ID: 880-9962-1

**Client Sample ID: Auger Hole 1** 

Date Collected: 01/05/22 16:08 Date Received: 01/07/22 13:05

Lab Sample ID: 880-9962-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	16279	01/07/22 14:31	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	16342	01/11/22 00:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16518	01/11/22 12:59	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16554	01/11/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	16281	01/07/22 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			16324	01/08/22 17:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	16437	01/10/22 13:11	CH	XEN MID
Soluble	Analysis	300.0		10			16545	01/12/22 14:58	CH	XEN MID

Client Sample ID: Auger Hole 1

Date Collected: 01/05/22 16:10

Date Received: 01/07/22 13:05

Lab Sample ID: 880-9962-2

Matrix: Solid

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 4.97 g 5 mL 16279 01/07/22 14:31 KL XEN MID Total/NA 8021B 5 mL 01/11/22 01:04 KLXEN MID Analysis 1 5 mL 16342 Total/NA Total BTEX 16518 01/11/22 12:59 XEN MID Analysis 1 A.I Total/NA Analysis 8015 NM 16554 01/11/22 14:19 XEN MID Total/NA 16281 01/07/22 14:36 DM XEN MID Prep 8015NM Prep 10.02 g 10 mL Total/NA Analysis 8015B NM 16324 01/08/22 18:12 AJ XEN MID Soluble 01/10/22 13:11 СН XEN MID Leach DI Leach 5 g 50 mL 16437 Soluble Analysis 300.0 10 16545 01/12/22 15:08 CH XEN MID

Client Sample ID: Auger Hole 2

Date Collected: 01/05/22 16:12

Date Received: 01/07/22 13:05

Lab Sample ID: 880-9962-3

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	16279	01/07/22 14:31	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	16342	01/11/22 02:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16518	01/11/22 12:59	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			16554	01/11/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	16281	01/07/22 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			16324	01/08/22 18:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	16437	01/10/22 13:11	CH	XEN MID
Soluble	Analysis	300.0		10			16545	01/12/22 15:18	CH	XEN MID

Client Sample ID: Auger Hole 2

Date Collected: 01/05/22 16:14

Date Received: 01/07/22 13:05

Lab Sample ID: 880-9962-4

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	16279	01/07/22 14:31	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	16342	01/11/22 02:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16518	01/11/22 12:59	AJ	XEN MID

### **Lab Chronicle**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Lab Sample ID: 880-9962-4

Matrix: Solid

Job ID: 880-9962-1

Client Sample ID: Auger Hole 2 Date Collected: 01/05/22 16:14 Date Received: 01/07/22 13:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			16554	01/11/22 14:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	16281	01/07/22 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			16324	01/08/22 19:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	16437	01/10/22 13:11	CH	XEN MID
Soluble	Analysis	300.0		5			16545	01/12/22 15:28	CH	XEN MID

#### Laboratory References:

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

## **Accreditation/Certification Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

#### **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>			
Texas	NE	ELAP	T104704400-21-22	06-30-22			
The following analytes the agency does not of		ut the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo			
Analysis Method	Prep Method	Matrix	Analyte				
Analysis Method 8015 NM		Matrix Solid	Analyte Total TPH				

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### **Method Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

Laboratory

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

**Eurofins Midland** 

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## **Sample Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: Hudgens #001 (9681)

Job ID: 880-9962-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-9962-1	Auger Hole 1	Solid	01/05/22 16:08	01/07/22 13:05	0-6"
880-9962-2	Auger Hole 1	Solid	01/05/22 16:10	01/07/22 13:05	6-12"
880-9962-3	Auger Hole 2	Solid	01/05/22 16:12	01/07/22 13:05	0-6"
880-9962-4	Auger Hole 2	Solid	01/05/22 16:14	01/07/22 13:05	6-12"

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# **Chain of Custody**

Work Order No: 9967

Houston TX (281) 240-4200 Dallas TX (214) 902-0300 San Antonio TX (210) 509-3334 Midland TX (432-704-5440) EL Paso TX (915)585-3443 Lubbock TX (806)794-1296

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Project Manager	Brandon Wilso	n	····		Bill to (if diffe														***************************************			ommen	*		
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Address	13000 W CR 1	00			Address										1		of Proj		-						
City, State ZIP	Odessa, Tx 79	765			City, State Z	IP								Rep	orting	Level	II 🔲	.evel	III 🔲	PST/L	JST [	]RRP	.evel I\	/ 🗆	
Phone	432-563-2200			Email	brandon@e	eteche	nv con	ı, blak	e@et	echer	ıv con	]			Del	verabl	es El	DD [		ΑE	DaPT		Othe	ſ	
Project Name	Hudgens #001	(9681)		Т	urn Around				·	W. ***	Al	NALY	SIS REC	QUE	ST						T	W	ork O	rder Not	es
Project Number	15313			Rou	tine 🔀										Τ				Т	T					
PO Number	15313			Rus	h							1						ı							
Sampler's Name	Blake Estep			Due	Date																				
SAMPLE RECE	EIPT Ten	np Blank	Yes (No	Wet Ice	(res) No	1																			
Temperature (°C)	53/	54	4	Thermomete	r ID	ers						İ													
Received Intact.	(Yes)			IV	28	Containers	2	8				İ									1				
Cooler Custody Sea	- Contracting -		Corre	ection Factor	10		S	321				İ									ľ	TAT ets	arte the	day recevie	d by the
Sample Custody Se	als Yes No	(N/A)	Tota	al Containers			801	8	es			ļ												ived by 4 30	
Sample Ider	ntification	Matrix	Date Sampled	Time Sampled	Depth	Numbe	TPH ≤	ВЕТЕХ	Chlorides													Sample Comments			nts
Auger H	łole 1	S	1/5/2022	16 08	0-6"	1	Х	Х	Х					*****	<b>†</b>										
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Auger H	lole 2	S	1/5/2022	16 12	0-6"	1	X	X	Х									1		1	,				
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Circle Method(	(s) and Metal(s)	to be an	alyzed	TCLP / SP	LP 6010 8F	RCRA	Sb A	s Ba	Be (	Cd Cr	Co (	Cu Pl	b Mn M	10 l	N S	e Ag	TI U			_				70 / 747	1 Hg
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Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 Battet	Litte on 13	17-22 13:05	2		
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### **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions Job Number: 880-9962-1

Login Number: 9962 List Source: Eurofins Midland

List Number: 1

Creator: Rodriguez, Leticia

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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 142429

#### **CONDITIONS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	142429
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Crea By		Condition Date
bha	The site remediation and closure must comply with 19.15.29.13 NMAC.	12/8/2022
bha	Submit a complete report through the OCD Permitting website by 03/10/2023.	12/8/2022