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 32.93467º North, Longitude 103.32289º West
NMOCD Reference #: nPAC0801736858

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

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 32.93467º North and 103.32289º West. A "Topographic Map" and "Aerial Proximity Map" are provided as Figures 1 & 2, respectfully.

On January 1, 2008, a valve froze causing it to fail resulting in the release at the Hudgens #001 site (Release Site). Approximately forty (40) barrels of produced water was released with approximately thirty-two (32) barrels of produced water recovered, for a net release of eight (8) 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 fifty-two (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 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 forty-eight (48) 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 300.0, 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 300.0.
- 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 remediation activities. Upon completion of remediation activities, Chevron will complete the activities within ninety (90) days of approval 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.

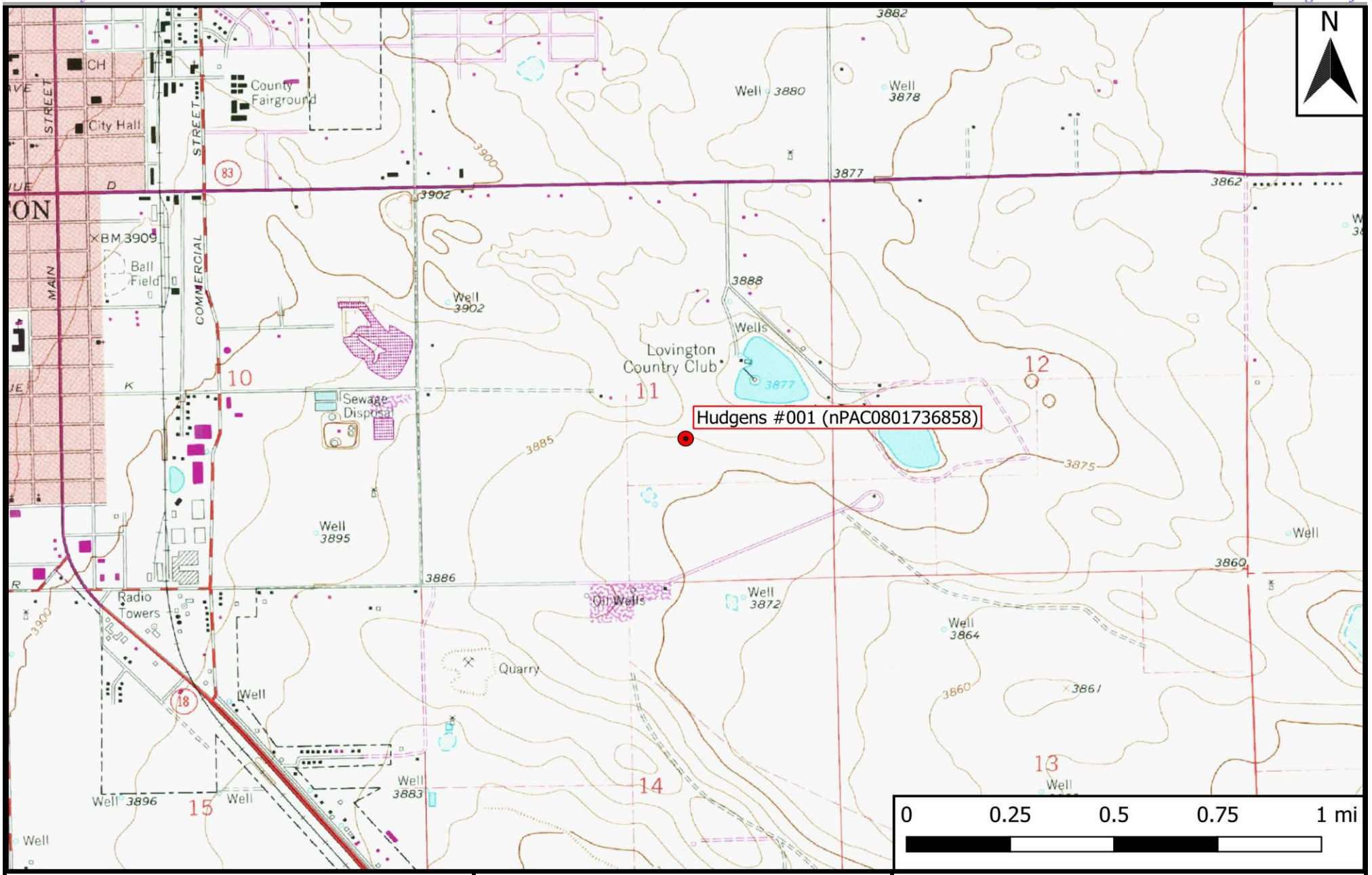
DISTRIBUTION

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



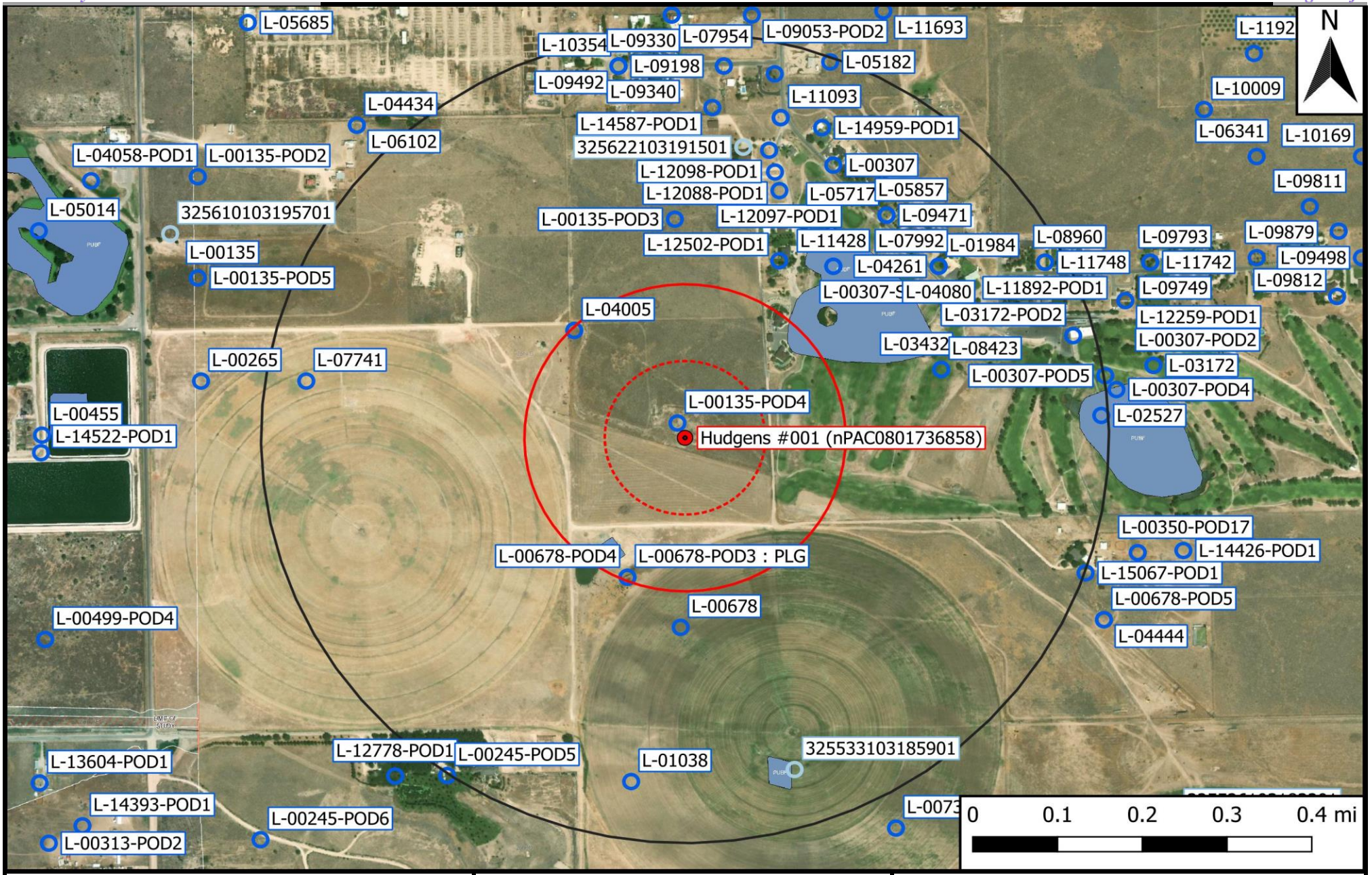
Legend

- Site Location

Figure 1
Topographic Map
Chevron USA
Hudgens #001 (nPAC0801736858)
GPS: 32.934674, -103.322889
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: be Date: 8/8/22



Legend

- Site Location
- Well - NMOSE
- Well - USGS
- Potash Mine Workings
- Medium/High Karst
- 500 Ft Radius
- 1000 Ft Radius
- 0.5 Mi Radius
- 1% Annual Flood Chance
- Lake/Freshwater Pond
- Emergent/Forested Wetlands
- Riverine

Figure 2

Aerial Proximity Map

Chevron USA

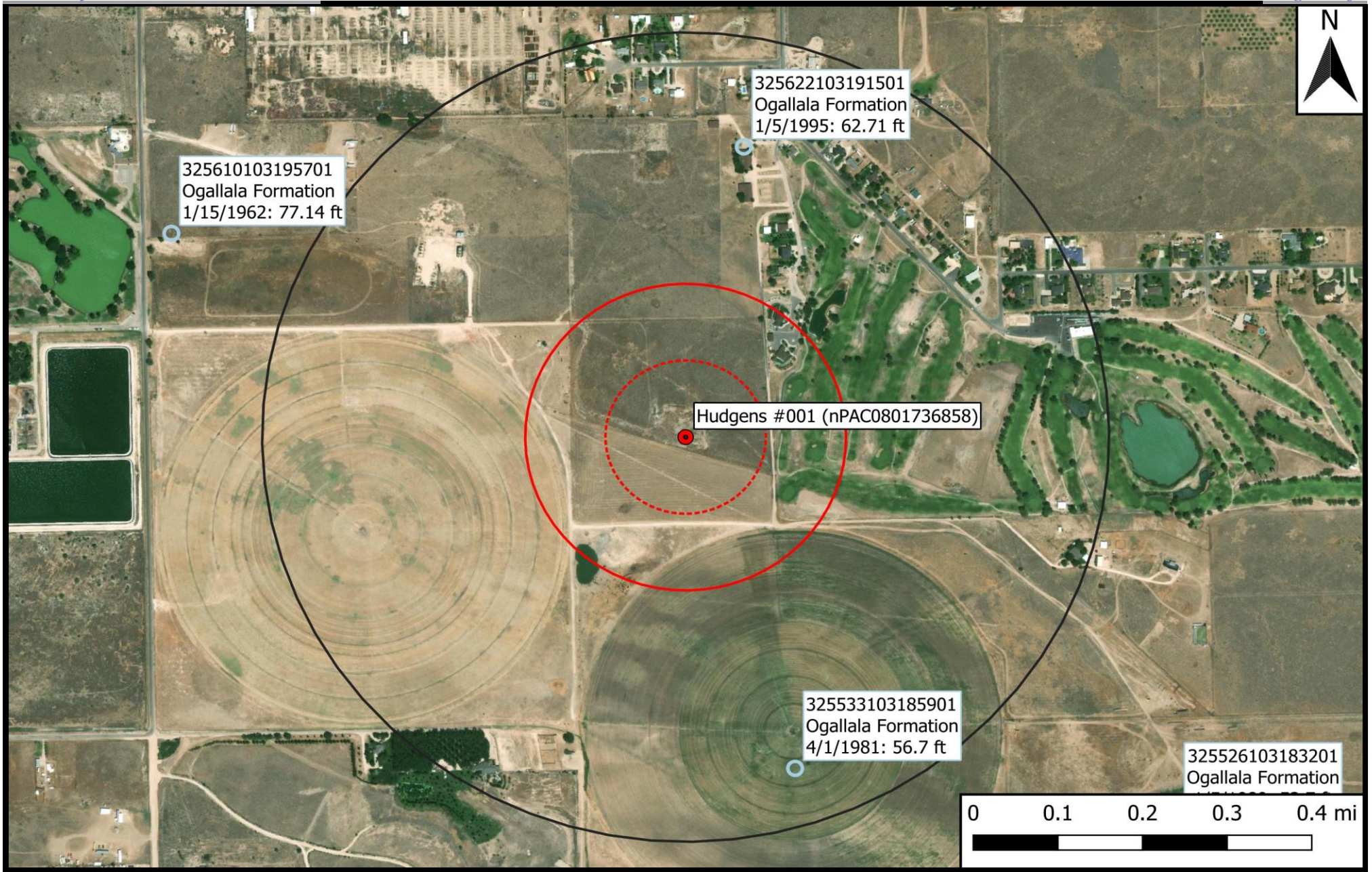
Hudgens #001 (nPAC0801736858)

GPS: 32.934674, -103.322889

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: be Date: 8/8/22



Legend
- Site Location
- Well - USGS
- 500 Ft Radius
- 1000 Ft Radius
- 0.5 Mi Radius

Figure 0
USGS Well Proximity Map
Chevron USA
Hudgens #001 (nPAC0801736858)
GPS: 32.934674, -103.322889
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: be Date: 8/8/22

Environmental & Safety Solutions, Inc.

Figure 4 Site Sample Location Map	Project Name:	Hudgens #001 (6858)	Project No.:	15312
	Date Sampled:	January 5, 2022	GPS:	32.934674, -103.322889

TABLES

TABLE 1

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

CHEVRON USA

HUDGENS #001

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	DEPTH	SAMPLE DATE	METHODS: SW 846-8021B						METHOD: SW 8015M						E 300.0
			BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH DRO & GRO C_6-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
NMOCD 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	**1,040**
AH-1	6-12"	1/5/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,820**
AH-2	0-6"	1/5/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3,380**
AH-2	6-12"	1/5/2022	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2,580**

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
1301 W. Grand Avenue, 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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company CHESAPEAKE OPERATING, INC.	Contact BRADLEY BLEVINS
Address P. O. BOX 190 HOBBS, NM 88241	Telephone No. 505-391-1462
Facility Name Hudgens SWD #1	Facility Type Disposal Well

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE API #30-025-29712

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	11	16S	36E	1980	SOUTH	1980	EAST	LEA

63'

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 40 BBLS	Volume Recovered 32 BBLS
Source of Release A valve froze and popped the ball valve	1/1/08 7:00 A.M. Date and Hour of Occurrence	1/01/08 10:00 A.M. Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A valve freeze and popped the ball valve releasing produced water inside the tank battery containment. Vaccum trucks dispatched to recover as much of the produced water as possible, recovered 32 bbls.

Describe Area Affected and Cleanup Action Taken.*
32 BBLS of produced water was recovered. Soil remediation activities commenced on 1/3/08. Soil will be excavated, sampled, and backfilled upon approval from NMOCD.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Cliff P. Brunson for Chesapeake Operating, Inc.	OIL CONSERVATION DIVISION
Printed Name: CLIFF P. BRUNSON	Approved by District Supervisor: Chris Williams
Title: PRESIDENT	Approval Date: 1/16/08 Expiration Date: 4/16/08
E-mail Address: CBRUNSON@BBCINTERNATIONAL.COM	Conditions of Approval: Attached ☐
Date: 1/09/08 Phone: 505-397-6388	

* Attach Additional Sheets If Necessary

RP#1712

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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: _____ Title: _____

Signature: _____ Date: 9-12-22

email: _____ Telephone:432-687-7108

OCD Only

Received by: Jocelyn Harimon Date: 09/12/2022

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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.

Deferral denied

☐ 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: _____ Title: _____

Signature: _____ Date: 9-12-22

email: _____ Telephone: 432-687-7108

OCD Only

Received by: Jocelyn Harimon Date: 09/12/2022

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

Signature: Brittany Hall Date: 12/8/2022

Appendix B – Photographic Documentation

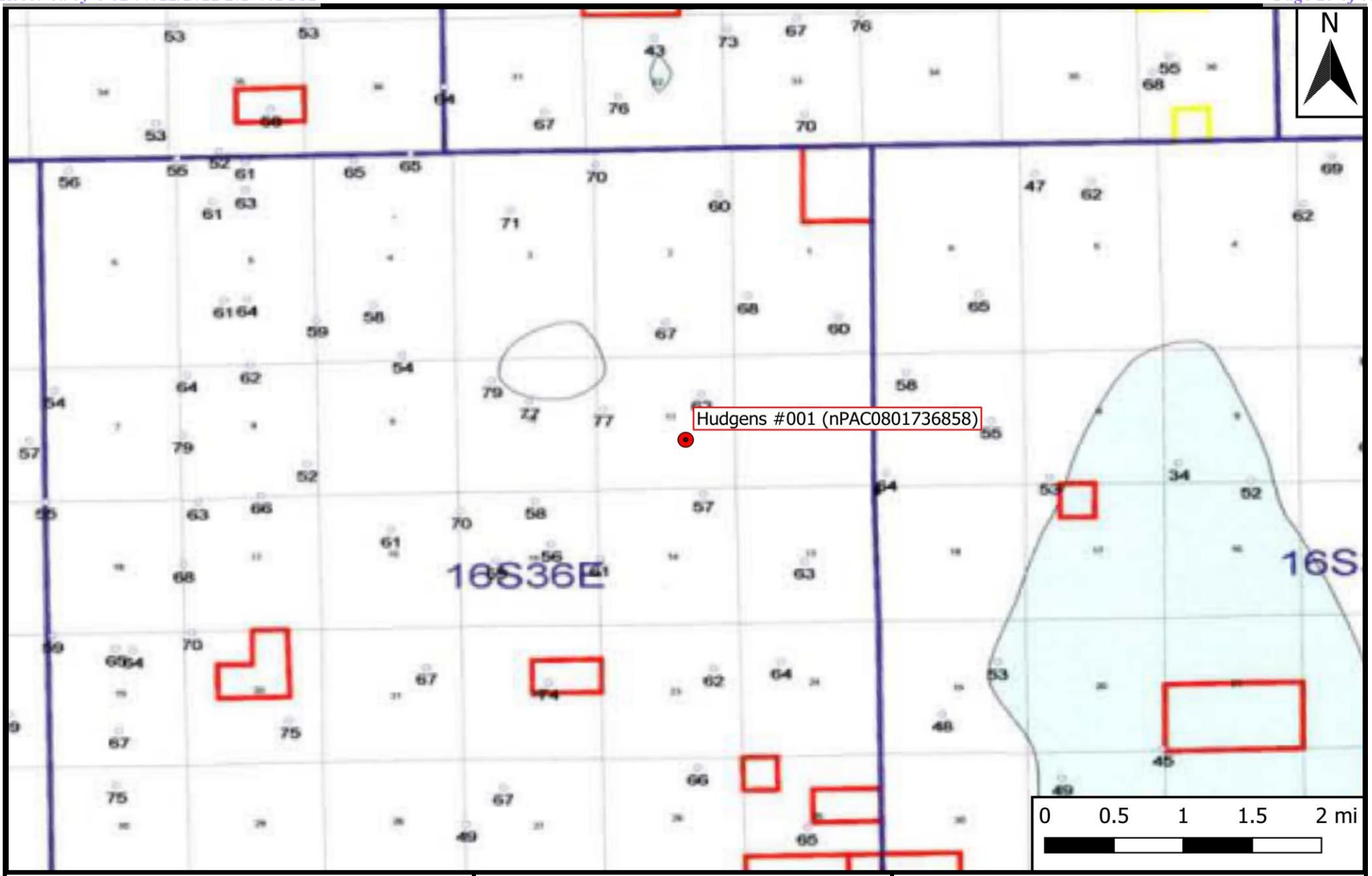
Project Name: *Hudgens #001*
Project No: *15312*

Photographic Documentation

Photo No: **1.**	
Direction Taken: Southwest	
Description: View during assessment and delineation event.	

Photo No: **2.**	
Direction Taken: Northeast	
Description: View during assessment and delineation event.	

Appendix C – Depth to Groundwater Information



Legend

Site Location

Figure p

Inferred Depth to Groundwater Trend Map

Chevron USA

Hudgens #001 (nPAC0801736858)

GPS: 32.934674, -103.322889

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: be Date: 8/8/22

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

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 00135 POD4		L	LE		1	4	11	16S	36E	656779	3645322*	32	149	75	74
L 00678 POD3	R	L	LE	1	3	4	11	16S	36E	656684	3645017*	296	146	67	79
L 00678 POD4	R	L	LE	1	3	4	11	16S	36E	656684	3645017*	296	212	160	52
L 04005		L	LE				11	16S	36E	656583	3645505*	298	95	75	20
L 00678	R	L	LE		3	4	11	16S	36E	656785	3644918*	374	95		
L 12502 POD1		L	LE	3	4	2	11	16S	36E	656972	3645642	393	195		
L 00135 POD3		L	LE		3	2	11	16S	36E	656774	3645725*	432	125	78	47
L 00307 S		L	LE	3	4	2	11	16S	36E	657075	3645632*	440	205		
L 11428		L	LE	3	4	2	11	16S	36E	657075	3645632*	440	156		
L 03432		L	LE	2	2	4	11	16S	36E	657280	3645428*	505	110	68	42
L 08423		L	LE	2	2	4	11	16S	36E	657280	3645428*	505	120	72	48
L 12097 POD1		L	LE	1	4	2	11	16S	36E	656973	3645781	520	170		
L 12088 POD1		L	LE	1	4	2	11	16S	36E	656964	3645818	552	205		
L 05717		L	LE		4	2	11	16S	36E	657176	3645733*	583	110	67	43
L 05857		L	LE		4	2	11	16S	36E	657176	3645733*	583	100	65	35
L 07992		L	LE		4	2	11	16S	36E	657176	3645733*	583			
L 09445		L	LE		4	2	11	16S	36E	657176	3645733*	583	110		
L 09471		L	LE		4	2	11	16S	36E	657176	3645733*	583	110	72	38
L 01984		L	LE	4	4	2	11	16S	36E	657275	3645632*	589	95	55	40
L 04080		L	LE	4	4	2	11	16S	36E	657275	3645632*	589	103	75	28
L 04261		L	LE	4	4	2	11	16S	36E	657275	3645632*	589	110	94	16
L 12098 POD1		L	LE	2	3	2	11	16S	36E	656953	3645861	590	170		
L 00307		L	LE	1	4	2	11	16S	36E	657075	3645832*	608	100	50	50
L 14587 POD1		L	LE	4	1	2	11	16S	36E	656845	3645945	655	165	85	80
L 05922		L	LE			2	11	16S	36E	656975	3645926*	658	105	70	35
L 09389		L	LE			2	11	16S	36E	656975	3645926*	658	110		
L 11093		L	LE			2	11	16S	36E	656975	3645926*	658	120	70	50
L 14959 POD1		L	LE	1	4	2	11	16S	36E	657054	3645906	666	217	115	102
L 01038		L	LE	1	1	2	14	16S	36E	656691	3644613*	687	90	60	30
L 07741		L	LE	2	1	3	11	16S	36E	656074	3645405*	728	142	78	64
L 03999		L	LE	4	1	2	11	16S	36E	656867	3646028*	738	95	65	30
L 08682		L	LE	4	1	2	11	16S	36E	656867	3646028*	738	124	70	54
L 08683		L	LE	4	1	2	11	16S	36E	656867	3646028*	738	123	70	53

L 12093 POD1		L	LE	4	2	2	11	16S	36E	656964	3646012		739	170		
L 09053	R	L	LE	3	1	2	11	16S	36E	656667	3646028*		745	175	95	80
L 09054	R	L	LE	3	1	2	11	16S	36E	656667	3646028*		745	135	65	70
L 09054 POD2		L	LE	3	1	2	11	16S	36E	656667	3646028*		745	135	65	70
L 09195		L	LE	3	1	2	11	16S	36E	656667	3646028*		745	135	90	45
L 09198		L	LE	3	1	2	11	16S	36E	656667	3646028*		745	135	90	45
L 09330		L	LE	3	1	2	11	16S	36E	656667	3646028*		745	140	70	70
L 09331		L	LE	3	1	2	11	16S	36E	656667	3646028*		745	140	90	50
L 09340		L	LE	3	1	2	11	16S	36E	656667	3646028*		745	150	90	60
L 09492	R	L	LE	3	1	2	11	16S	36E	656667	3646028*		745	135	65	70
L 10354		L	LE	3	1	2	11	16S	36E	656667	3646028*		745	120	63	57
L 03172 POD2		L	LE	2	1	3	12	16S	36E	657530	3645494		764	210		
L 08960		L	LE	3	3	1	12	16S	36E	657477	3645640*		766	112	72	40
L 11748		L	LE	3	3	1	12	16S	36E	657477	3645640*		766	143	73	70
L 11892 POD1		L	LE	3	3	1	12	16S	36E	657477	3645640*		766	130	70	60
L 02527		L	LE		1	3	12	16S	36E	657584	3645337*		791	110	55	55
L 05182		L	LE	3	2	2	11	16S	36E	657069	3646036*		792	110	75	35

Average Depth to Water: **75 feet**

Minimum Depth: **50 feet**

Maximum Depth: **160 feet**

Record Count: 50

UTMNAD83 Radius Search (in meters):

Easting (X): 656793.3 **Northing (Y):** 3645292.77 **Radius:** 804.67

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

8/8/22 9:30 AM WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	L 00135 POD4	1	4		11	16S	36E	656779	3645322*

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

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	L 00678 POD3	1	3	4	11	16S	36E	656684	3645017*

Driller License:	183	**Driller Company:**	CAYTON WATER WELL DRILLING CO		
Driller Name:	JACK CAYTON				
Drill Start Date:	01/01/1957	**Drill Finish Date:**	01/31/1957	**Plug Date:**	03/25/1957
Log File Date:	05/02/1957	**PCW Rcv 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

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

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 00678 POD4	1	3	4	11	16S	36E	656684	3645017*

Driller License:	281	**Driller Company:**	PRUETT, OTIS H.		
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:**	800 GPM
Casing Size:	14.00	**Depth Well:**	212 feet	**Depth Water:**	160 feet

Water Bearing Stratifications:	Top	Bottom	Description
	74	80	Other/Unknown
	148	202	Other/Unknown

Casing Perforations:	Top	Bottom
	128	212

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64 Q16 Q4	Sec	Tws	Rng	X	Y
	L 04005		11	16S	36E	656583	3645505*

Driller License: 33 **Driller Company:** TATUM CLAUDE E.

Driller Name:

Drill Start Date: 09/20/1958 **Drill Finish Date:** 09/20/1958 **Plug Date:**

Log File Date: 10/27/1958 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 95 feet **Depth Water:** 75 feet

Water Bearing Stratifications:	Top	Bottom	Description
	75	95	Sandstone/Gravel/Conglomerate

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

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

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

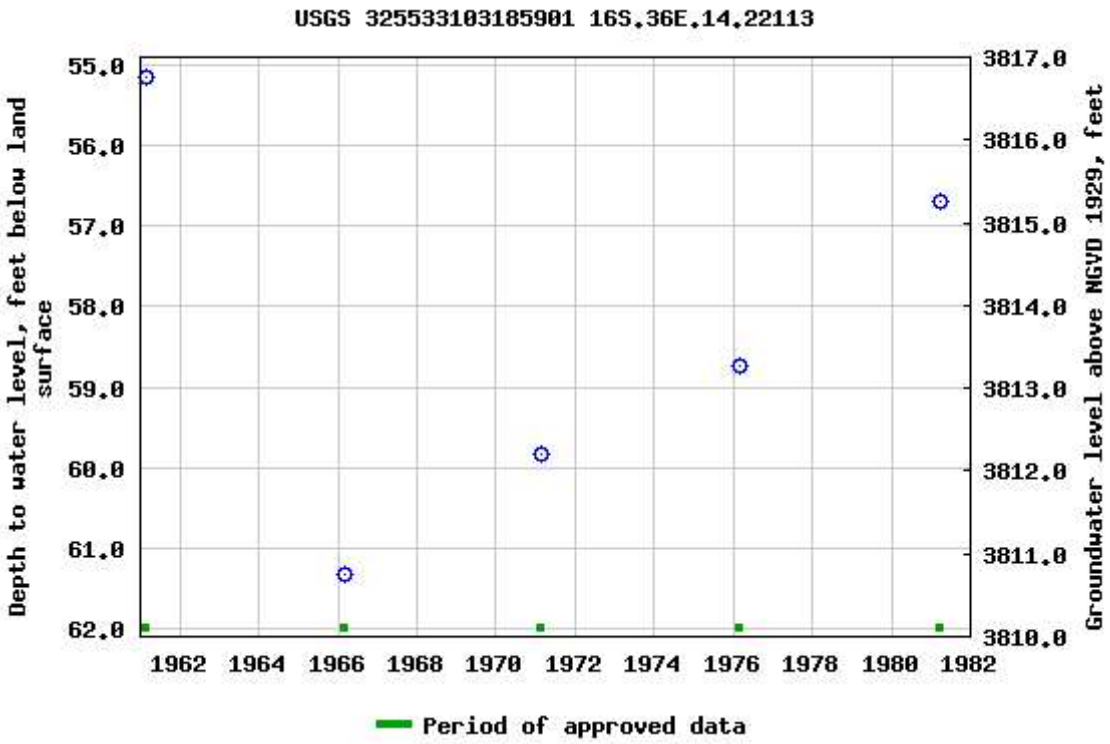
USGS 325533103185901 16S.36E.14.22113

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 (121OGLL) 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.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2022-08-08 11:22:15 EDT
0.58 0.51 nadww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click forNews Bulletins

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

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

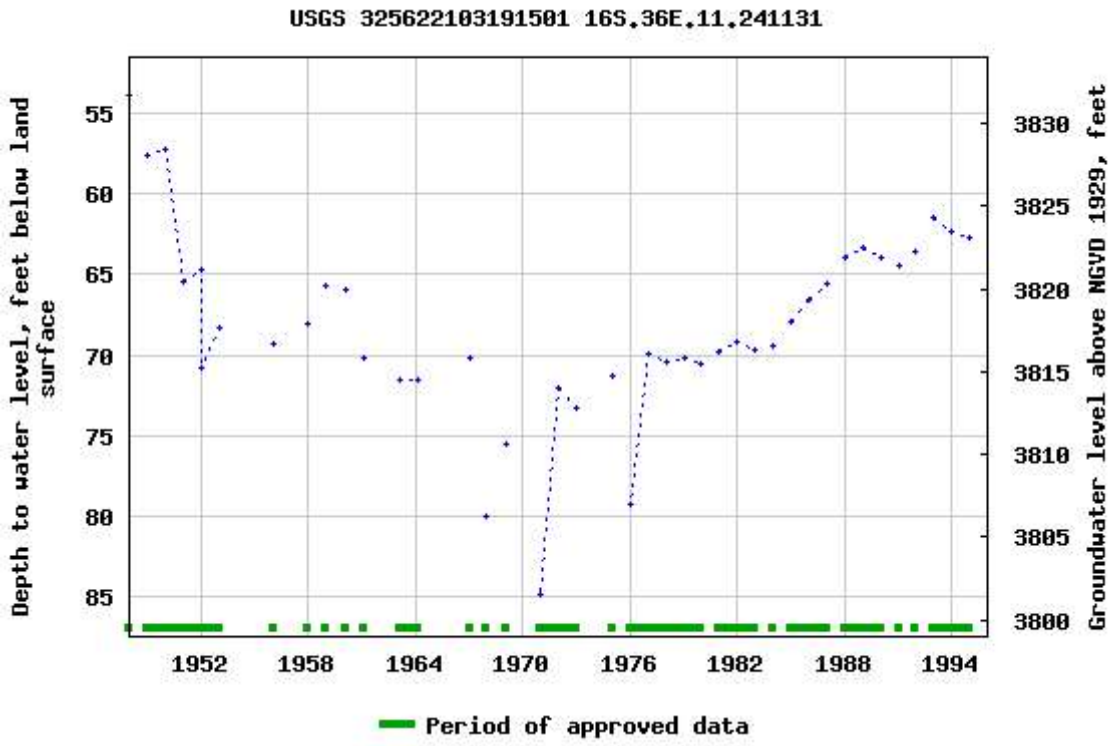
USGS 325622103191501 16S.36E.11.241131

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 12080003
Latitude 32°56'23", Longitude 103°19'16" NAD27
Land-surface elevation 3,886.00 feet above NGVD29
The depth of the well is 100 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) 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.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2022-08-08 11:22:16 EDT
0.58 0.51 nadww01

Appendix D – Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-9963-1
Client Project/Site: Hudgens #001 (6858)

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

Attn: Brandon Wilson

JKramer

Authorized for release by:
1/14/2022 2:17:58 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Laboratory Job ID: 880-9963-1

Table of Contents

Definitions/Glossary

Client: Etech Environmental & Safety Solutions Job ID: 880-9963-1
Project/Site: Hudgens #001 (6858)

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

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

Job ID: 880-9963-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-9963-1

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°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.

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

Client Sample Results

Client: Etech Environmental & Safety Solutions
Job ID: 880-9963-1
Project/Site: Hudgens #001 (6858)

Client Sample ID: Auger Hole 1
Lab Sample ID: 880-9963-1
Date Collected: 01/05/22 16:00
Matrix: Solid
Date Received: 01/07/22 13:05
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

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 03:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 03:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 03:07	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/07/22 14:31	01/11/22 03:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 03:07	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/07/22 14:31	01/11/22 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*133*	*S1+*	*70 - 130*	*01/07/22 14:31*	*01/11/22 03:07*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*01/07/22 14:31*	*01/11/22 03:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		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	U	49.9		mg/Kg			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 19:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 19:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/07/22 14:36*	*01/08/22 19:33*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/07/22 14:36*	*01/08/22 19:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1040**		5.00		mg/Kg			01/12/22 15:37	1

Client Sample ID: Auger Hole 1
Lab Sample ID: 880-9963-2
Date Collected: 01/05/22 16:02
Matrix: Solid
Date Received: 01/07/22 13:05
Sample Depth: 6-12"

Method: 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 03:27	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/07/22 14:31	01/11/22 03:27	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/07/22 14:31	01/11/22 03:27	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/07/22 14:31	01/11/22 03:27	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/07/22 14:31	01/11/22 03:27	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/07/22 14:31	01/11/22 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*01/07/22 14:31*	*01/11/22 03:27*	*1*

Eurofins Midland

Client Sample Results

Client: Etech Environmental & Safety Solutions
Job ID: 880-9963-1
Project/Site: Hudgens #001 (6858)

Client Sample ID: Auger Hole 1
Lab Sample ID: 880-9963-2

Date Collected: 01/05/22 16:02
Matrix: Solid
Date Received: 01/07/22 13:05
Sample Depth: 6-12"

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*01/07/22 14:31*	*01/11/22 03:27*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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	<49.9	U	49.9		mg/Kg			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 19:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 19:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/07/22 14:36	01/08/22 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*88*		*70 - 130*	*01/07/22 14:36*	*01/08/22 19:53*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/07/22 14:36*	*01/08/22 19:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1820**		24.8		mg/Kg			01/14/22 11:44	5

Client Sample ID: Auger Hole 2
Lab Sample ID: 880-9963-3

Date Collected: 01/05/22 16:04
Matrix: Solid
Date Received: 01/07/22 13:05
Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/07/22 14:31	01/11/22 03:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/07/22 14:31	01/11/22 03:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/07/22 14:31	01/11/22 03:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/07/22 14:31	01/11/22 03:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/07/22 14:31	01/11/22 03:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/07/22 14:31	01/11/22 03:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*01/07/22 14:31*	*01/11/22 03:48*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/07/22 14:31*	*01/11/22 03:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		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

Eurofins Midland

Client Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-9963-3
Matrix: Solid
Date Collected: 01/05/22 16:04
Date Received: 01/07/22 13:05
Sample Depth: 0-6"

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	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 20:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 20:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*01/07/22 14:36*	*01/08/22 20:13*	*1*
o-Terphenyl	*112*		*70 - 130*	*01/07/22 14:36*	*01/08/22 20:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3380**		25.0		mg/Kg			01/14/22 02:44	5

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-9963-4
Matrix: Solid
Date Collected: 01/05/22 16:06
Date Received: 01/07/22 13:05
Sample Depth: 6-12"

Method: 8021B - Volatile Organic Compounds (GC)

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 04:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 04:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 04:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/07/22 14:31	01/11/22 04:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/11/22 04:08	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/07/22 14:31	01/11/22 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*01/07/22 14:31*	*01/11/22 04:08*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/07/22 14:31*	*01/11/22 04:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		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

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	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 20:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 20:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/07/22 14:36	01/08/22 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*01/07/22 14:36*	*01/08/22 20:33*	*1*
o-Terphenyl	*91*		*70 - 130*	*01/07/22 14:36*	*01/08/22 20:33*	*1*

Client Sample Results

Client: Etech Environmental & Safety Solutions
Job ID: 880-9963-1
Project/Site: Hudgens #001 (6858)

Client Sample ID: Auger Hole 2
Lab Sample ID: 880-9963-4
Date Collected: 01/05/22 16:06
Matrix: Solid
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	2580		25.0		mg/Kg			01/14/22 02:50	5

Surrogate Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9960-A-1-A MS	Matrix Spike	108	108
880-9960-A-1-B MSD	Matrix Spike Duplicate	103	99
880-9963-1	Auger Hole 1	133 S1+	118
880-9963-2	Auger Hole 1	113	93
880-9963-3	Auger Hole 2	114	82
880-9963-4	Auger Hole 2	129	104
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

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9942-A-1-C MS	Matrix Spike	77	76
880-9942-A-1-D MSD	Matrix Spike Duplicate	85	85
880-9963-1	Auger Hole 1	84	96
880-9963-2	Auger Hole 1	88	100
880-9963-3	Auger Hole 2	97	112
880-9963-4	Auger Hole 2	79	91
LCS 880-16281/2-A	Lab Control Sample	103	106
LCSD 880-16281/3-A	Lab Control Sample Dup	108	112
MB 880-16281/1-A	Method Blank	82	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-16220/5-A
Matrix: Solid
Analysis Batch: 16342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16220

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/07/22 09:17	01/10/22 10:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/07/22 09:17	01/10/22 10:46	1

Surrogate	*MB %Recovery*	*MB 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*

Lab Sample ID: MB 880-16279/5-A
Matrix: Solid
Analysis Batch: 16342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/10/22 21:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/10/22 21:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/10/22 21:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/07/22 14:31	01/10/22 21:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/07/22 14:31	01/10/22 21:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/07/22 14:31	01/10/22 21:39	1

Surrogate	*MB %Recovery*	*MB 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
Prep Type: Total/NA
Prep Batch: 16279

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%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
o-Xylene	0.100	0.08407		mg/Kg		84	70 - 130

Surrogate	*LCS %Recovery*	*LCS 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
Analysis Batch: 16342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16279

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

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	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

Surrogate	*LCSD %Recovery*	*LCSD 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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%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		

Surrogate	*MS %Recovery*	*MS 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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	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

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
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

Analyte	MB Result	MB 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 13:27	1

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

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

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

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

Surrogate	*MB %Recovery*	*MB 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*

Lab Sample ID: LCS 880-16281/2-A
Matrix: Solid
Analysis Batch: 16324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16281

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

Surrogate	*LCS %Recovery*	*LCS 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

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*112*		*70 - 130*

Lab Sample ID: 880-9942-A-1-C MS
Matrix: Solid
Analysis Batch: 16324

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 16281

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	843.3		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1076		mg/Kg		105	70 - 130

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

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

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

Lab Sample ID: 880-9942-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 16324 — **Prep Batch: 16281**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	966.2		mg/Kg		95	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1231		mg/Kg		121	70 - 130	13	20

Surrogate	*MSD %Recovery*	*MSD 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**
Analysis Batch: 16545

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%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**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16545

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	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**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16545

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	15.0		250	290.0		mg/Kg		110	90 - 110

Lab Sample ID: 880-9960-A-4-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16545

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	15.0		250	286.0		mg/Kg		108	90 - 110	1	20

QC Sample Results

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-16440/1-A
Matrix: Solid
Analysis Batch: 16551

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/14/22 02:07	1

Lab Sample ID: LCS 880-16440/2-A
Matrix: Solid
Analysis Batch: 16551

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	264.3		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-16440/3-A
Matrix: Solid
Analysis Batch: 16551

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	269.4		mg/Kg		108	90 - 110	2	20

Lab Sample ID: 880-9963-2 MS
Matrix: Solid
Analysis Batch: 16551

Client Sample ID: Auger Hole 1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1820		1240	3087		mg/Kg		103	90 - 110		

Lab Sample ID: 880-9963-2 MSD
Matrix: Solid
Analysis Batch: 16551

Client Sample ID: Auger Hole 1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1820		1240	3093		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

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
880-9963-1	Auger Hole 1	Total/NA	Solid	5035	
880-9963-2	Auger Hole 1	Total/NA	Solid	5035	
880-9963-3	Auger Hole 2	Total/NA	Solid	5035	
880-9963-4	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
880-9963-1	Auger Hole 1	Total/NA	Solid	8021B	16279
880-9963-2	Auger Hole 1	Total/NA	Solid	8021B	16279
880-9963-3	Auger Hole 2	Total/NA	Solid	8021B	16279
880-9963-4	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: 16519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9963-1	Auger Hole 1	Total/NA	Solid	Total BTEX	
880-9963-2	Auger Hole 1	Total/NA	Solid	Total BTEX	
880-9963-3	Auger Hole 2	Total/NA	Solid	Total BTEX	
880-9963-4	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
880-9963-1	Auger Hole 1	Total/NA	Solid	8015NM Prep	
880-9963-2	Auger Hole 1	Total/NA	Solid	8015NM Prep	
880-9963-3	Auger Hole 2	Total/NA	Solid	8015NM Prep	
880-9963-4	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
880-9963-1	Auger Hole 1	Total/NA	Solid	8015B NM	16281

QC Association Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

GC Semi VOA (Continued)

Analysis Batch: 16324 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9963-2	Auger Hole 1	Total/NA	Solid	8015B NM	16281
880-9963-3	Auger Hole 2	Total/NA	Solid	8015B NM	16281
880-9963-4	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
880-9963-1	Auger Hole 1	Total/NA	Solid	8015 NM	
880-9963-2	Auger Hole 1	Total/NA	Solid	8015 NM	
880-9963-3	Auger Hole 2	Total/NA	Solid	8015 NM	
880-9963-4	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
880-9963-1	Auger Hole 1	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	

Leach Batch: 16440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9963-2	Auger Hole 1	Soluble	Solid	DI Leach	
880-9963-3	Auger Hole 2	Soluble	Solid	DI Leach	
880-9963-4	Auger Hole 2	Soluble	Solid	DI Leach	
MB 880-16440/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-16440/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-16440/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9963-2 MS	Auger Hole 1	Soluble	Solid	DI Leach	
880-9963-2 MSD	Auger Hole 1	Soluble	Solid	DI Leach	

Analysis Batch: 16545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9963-1	Auger Hole 1	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

Analysis Batch: 16551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9963-2	Auger Hole 1	Soluble	Solid	300.0	16440
880-9963-3	Auger Hole 2	Soluble	Solid	300.0	16440

QC Association Summary

Client: Etech Environmental & Safety Solutions Job ID: 880-9963-1
Project/Site: Hudgens #001 (6858)

HPLC/IC (Continued)

Analysis Batch: 16551 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9963-4	Auger Hole 2	Soluble	Solid	300.0	16440
MB 880-16440/1-A	Method Blank	Soluble	Solid	300.0	16440
LCS 880-16440/2-A	Lab Control Sample	Soluble	Solid	300.0	16440
LCSD 880-16440/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	16440
880-9963-2 MS	Auger Hole 1	Soluble	Solid	300.0	16440
880-9963-2 MSD	Auger Hole 1	Soluble	Solid	300.0	16440

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-9963-1
Matrix: Solid
Date Collected: 01/05/22 16:00
Date Received: 01/07/22 13:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 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 03:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16519	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			10.03 g	10 mL	16281	01/07/22 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			16324	01/08/22 19:33	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	16437	01/10/22 13:11	CH	XEN MID
Soluble	Analysis	300.0		1			16545	01/12/22 15:37	CH	XEN MID

Client Sample ID: Auger Hole 1

Lab Sample ID: 880-9963-2
Matrix: Solid
Date Collected: 01/05/22 16:02
Date Received: 01/07/22 13:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 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 03:27	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16519	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 19:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	16440	01/10/22 13:15	CH	XEN MID
Soluble	Analysis	300.0		5			16551	01/14/22 11:44	CH	XEN MID

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-9963-3
Matrix: Solid
Date Collected: 01/05/22 16:04
Date Received: 01/07/22 13:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	16279	01/07/22 14:31	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	16342	01/11/22 03:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16519	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			10.01 g	10 mL	16281	01/07/22 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			16324	01/08/22 20:13	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	16440	01/10/22 13:15	CH	XEN MID
Soluble	Analysis	300.0		5			16551	01/14/22 02:44	CH	XEN MID

Client Sample ID: Auger Hole 2

Lab Sample ID: 880-9963-4
Matrix: Solid
Date Collected: 01/05/22 16:06
Date Received: 01/07/22 13:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	16279	01/07/22 14:31	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	16342	01/11/22 04:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			16519	01/11/22 12:59	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Etech Environmental & Safety Solutions
Job ID: 880-9963-1
Project/Site: Hudgens #001 (6858)

Client Sample ID: Auger Hole 2 **Lab Sample ID: 880-9963-4**
Date Collected: 01/05/22 16:06 **Matrix: Solid**
Date Received: 01/07/22 13:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			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 20:33	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	16440	01/10/22 13:15	CH	XEN MID
Soluble	Analysis	300.0		5			16551	01/14/22 02:50	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
Job ID: 880-9963-1
Project/Site: Hudgens #001 (6858)

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

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

Sample Summary

Client: Etech Environmental & Safety Solutions
Project/Site: Hudgens #001 (6858)

Job ID: 880-9963-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-9963-1	Auger Hole 1	Solid	01/05/22 16:00	01/07/22 13:05	0-6"
880-9963-2	Auger Hole 1	Solid	01/05/22 16:02	01/07/22 13:05	6-12"
880-9963-3	Auger Hole 2	Solid	01/05/22 16:04	01/07/22 13:05	0-6"
880-9963-4	Auger Hole 2	Solid	01/05/22 16:06	01/07/22 13:05	6-12"

Chain of Custody

XENCO LABORATORIES

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
Hobbs NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 9963

www xenco com Page 1 of 1

Project Manager	Brandon Wilson	Bill to (if different)	
Company Name	Etech Environmental	Company Name	
Address	13000 W CR 100	Address	
City, State ZIP	Odessa, Tx 79765	City, State ZIP	
Phone	432-563-2200	Email	brandon@etechenv com, blake@etechenv com

Work Order Comments

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

Project Name	Hudgens #001 (6858)	Turn Around	
Project Number	15312	Routine	☒
P O Number	15312	Rush	
Sampler's Name	Blake Estep	Due Date	

SAMPLE RECEIPT				
Temp Blank.	Yes (No)	Wet Ice	(Yes) No	
Temperature (°C)	5.3/5.4	Thermometer ID	IR8	
Received Intact:	(Yes) No			
Cooler Custody Seals	Yes No (N/A)	Correction Factor	10	
Sample Custody Seals	Yes No (N/A)	Total Containers		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH 8015M	BETEX 8021B	Chlorides
Auger Hole 1	S	1/5/2022	16 00	0-6"	1	X	X	X
Auger Hole 1	S	1/5/2022	16 02	6-12"	1	X	X	X
Auger Hole 2	S	1/5/2022	16 04	0-6"	1	X	X	X
Auger Hole 2	S	1/5/2022	16 06	6-12"	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab if received by 4 30pm

Sample Comments

880-9963 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** Hg

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 Blake Estep	Jessica R	1-7-22 13:05	2		
3			4		
5			6		

Login Sample Receipt Checklist

Client: Etech Environmental & Safety Solutions Job Number: 880-9963-1

Login Number: 9963 **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
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 142480

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 142480
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	The site must comply with 19.15.29.13 NMAC.	12/8/2022
bhall	1RP-1712 closed. Refer to incident #nPAC0801736858 in all future communication.	12/8/2022
bhall	Submit a complete report through the OCD permitting website by 3/10/2023.	12/8/2022