

REVIEWED

By Mike Buchanan at 11:09 am, Sep 25, 2023



2021 ANNUAL GROUNDWATER MONITORING REPORT

Artesia Tank Farm
Section 10, Township 18 South, Range 27 East
Artesia, Eddy County, New Mexico
NMOCD Reference # 2RP-6



Original Preparation Date:

March 24, 2022

Prepared for:

CENTURION PIPELINE LP

516 Veterans Airpark Lane Bldg. B
Midland TX 79705

Prepared By:

APEX Companies, LLC.

505 N. Big Spring Street, Suite 301A
Midland, TX 79701

Apex Project No. CEN21-001

Review of the 2021
Annual Groundwater
Monitoring Report:

**Content is
satisfactory**

1. Continue to monitor
groundwater wells and
sample as prescribed
by NMOCD.

2 Continue removal of
LNAPL when
appropriate conditions
are present and
document these
activities.

3. Submit the 2022 and
2023 Annual
Groundwater Reports,
unless already
uploaded. GW
Monitoring Report must
be submitted no later
than April 1, 2024.



2021 ANNUAL GROUNDWATER MONITORING REPORT

Artesia Tank Farm
Section 10, Township 18 South, Range 27 East
Artesia, Eddy County, New Mexico
NMOCD Reference # 2RP-6



A handwritten signature in cursive script, reading 'John Faught'.

John Faught
Geologist

A handwritten signature in cursive script, reading 'Aaron Sides'.

Aaron Sides
Project Manager





TABLE OF CONTENTS

1.0 – INTRODUCTION	1
1.1 - Site Background	1
1.2 - Site Description	1
1.3 - Project Objective	2
2.0 - SITE CHARACTERIZATION	2
2.1 – Site Geology and Hydrogeology	2
2.2 - Groundwater Flow	2
3.0 - REGULATORY GUIDELINES	2
3.1 – Site Ranking	2
4.0 - GROUNDWATER SAMPLING PROGRAM	4
4.1 - Groundwater Sampling Program	4
5.0 - LABORATORY ANALYTICAL METHODS	4
5.1 - Laboratory Analytical Methods	4
6.0 - DATA EVALUATION	4
6.1 - Annual Groundwater Analytical Monitoring	4
7.0 - FINDINGS AND CONCLUSIONS	5
8.0 - RECOMMENDATIONS	5

FIGURES

Figure 1 – Topographic Map
Figure 2 – Site Vicinity Map
Figure 3 – Site Details Map
Figure 4 – Groundwater Gradient Map June 10, 2010

TABLES

Table 1 – Groundwater Analytical Results
Table 2 – Groundwater Elevations

APPENDICES

Appendix A – Laboratory Analytical data & Chain of Custody Documentation



1.0 – INTRODUCTION

1.1 - Site Background

In March 1993, a release of crude oil was discovered at the Artesia Tank Farm located approximately 12 miles southeast of Artesia, New Mexico, referred to hereinafter as the “Site”. In August 1993, an initial assessment, which included the installation of 23 soil borings, concluded that impacts from light non-aqueous phase liquid (LNAPL) extended approximately 1,700 feet along Scoggin Draw. An interceptor trench and an associated groundwater separation/air-stripper remediation system was installed in November 1994 to control and remediate the LNAPL and dissolved-phase hydrocarbon plume associated with the release. A total of fourteen monitoring wells (MW-1 through MW-14) were eventually installed along Scoggin Draw to evaluate/monitor the extent of the groundwater impact. Quarterly reporting was performed throughout the operation of the remediation system, which was shut down in early 1997 and dismantled in the fall of 1998.

After New Mexico Oil Conservation Division (NMOCD) approval, all 14 monitoring wells were plugged and abandoned. Monitoring wells MW-4, MW-6, MW-7, MW-12, and MW-13 were plugged and abandoned on June 19, 2003. On August 18, 2005, monitoring wells MW-5, MW-8 and MW-14 were plugged and abandoned. On November 12 and 13, 2013 monitoring wells MW-1, MW-2, MW-2A, MW-3, MW-3A, MW-3B, MW-9, MW-10 and MW-11 were also plugged and abandoned.

On June 29, 2007, the NMOCD was notified that effective July 1, 2007, the Operator of Record for the Site, and the associated water development easement (WM-72) transferred from BP Pipelines (North America) Inc. to Centurion Pipeline LP (Centurion).

A status report was submitted on April 4, 2012, entitled “Status Update Report”. The laboratory analytical results in 2014 indicate that historical chemicals of concern (COC) concentrations in groundwater underlying areas outside the pump station compound were below the applicable New Mexico Water Quality Commission human health standard. The historical data provided in reports prepared by RT Hicks Consulting, Delta Environmental Consultants and the Antea Group shows general trends associated with biodegradation of the residual petroleum hydrocarbons and that the dissolved-phase contaminant plume is non-mobile and decreasing.

Additional remediation at the Site has been deferred until the Site is more accessible for removal of LNAPL. The NMOCD approved the completion of two (2) sentinel wells placed down gradient of potential contamination. The monitoring wells (MW-1 and MW-2) were installed in October 2016 by Apex. The results of the investigation and sampling activities are included in the “2016 Environmental Site Investigation and Annual Groundwater Report” prepared by Apex and dated December 2016. Annual groundwater samples are collected from the two monitoring wells and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX). The results are submitted in an annual groundwater monitoring report for submittal to the NMOCD.

1.2 - Site Description

The Artesia Tank Farm is located 12 miles southeast of Artesia in Section 10, Township 18 South, and Range 27 East in Eddy County, New Mexico. The geodetic coordinates of the Site are latitude



32.761507° N, longitude 104.270481° W. The Site is surrounded by primarily undeveloped rangeland periodically interrupted by oil and gas production.

A Topographic Map is included in Figure 1, a Site Vicinity Map, composed from an aerial photograph, is included in Figure 2, and a Site Details Map is included in Figure 3.

1.3 - Project Objective

The project objective of the groundwater monitoring at the Site is to monitor the groundwater down-gradient of the Artesia Tank Farm. Apex collected groundwater analytical samples from monitoring wells MW-1 and MW-2. The samples were analyzed for Benzene, Toluene, Ethylbenzene and Xylene (BTEX) utilizing Environmental Protection Agency (EPA) Method 8021B.

2.0 - SITE CHARACTERIZATION

2.1 – Site Geology and Hydrogeology

The lithology encountered during previous investigation activities at the Site consisted primarily of evaporates with intermittent layers of fine-grained sand. The surface contained intermittent caliche nodules. The United States Agricultural Department soil survey indicates that the Site is in the Artesia Group which consists of fine grain sandstones, evaporates, and dolostone.

2.2 - Groundwater Flow

Previous reports prepared by Antea Group indicate the groundwater flow direction (gradient) at the Site is generally south south-west. The shallow groundwater near the Site generally flows toward and along the Scoggin Draw, located to the east of the Site. A 2010 groundwater Gradient Map, prepared using information from the Antea Group, is included as Figure 4.

3.0 - REGULATORY GUIDELINES

3.1 – Site Ranking

The Site is under the jurisdiction of the ENMRD OCD. Initial Site activities were performed in accordance with the ENMRD OCD *Guidelines for Remediation of Leaks, Spills and Releases*, in addition to the OCD rules, specifically New Mexico Administrative Code (NMAC) 19.15.29 *Remediation Plan*. This guidance establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action.

Apex utilized the general site characteristics and information available from the New Mexico Office of the State Engineer to determine the appropriate OCD “ranking” for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	20
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	10
	200 to 1,000 feet	10	
	>1,000 feet	0	
Ranking Criteria			Ranking Score
Total Ranking Score			30

Based on Apex's evaluation of the scoring criteria, the Site would have a maximum OCD Total Ranking Score of "30". This ranking is based on the following:

The depth to the initial groundwater-bearing zone is less than 50 feet below grade surface (bgs) as observed in on-site groundwater monitoring wells, resulting in a ranking of "20" for depth to groundwater.

No water sources or wellheads were identified within 1,000 feet of the Site, resulting in a ranking of "0" for proximity to a wellhead protection area.

The Site is located approximately 260 feet to the west of the dry cut bank of Scoggin Draw, resulting in a ranking of "10" for distance to surface water.

The cleanup goals for groundwater at the Site were derived from the Water Quality Control Commission (WQCC) *Groundwater Quality NMAC 20.6.2 Standards* of:

- 0.005 milligrams per liter (mg/L) for benzene,
- 1.0 mg/L for toluene,
- 0.7 mg/L for ethylbenzene, and
- 0.62 mg/L for xylenes.

4.0 - GROUNDWATER SAMPLING PROGRAM

4.1 - Groundwater Sampling Program

Apex's groundwater sampling program consisted of collecting one (1) groundwater sample from each monitoring well annually. Before sample collection, Apex gauged depth to fluids in each monitoring well utilizing an electronic oil/water interface meter, capable of detecting phase separated hydrocarbons (PSH).

Each monitoring well was purged utilizing low-flow sampling techniques. The groundwater samples were collected from each monitoring well once produced groundwater was consistent in color, clarity, pH, dissolved oxygen (DO), oxidation/reduction potential (ORP), temperature and conductivity.

Groundwater samples were collected and placed in laboratory prepared glassware, placed on ice in a cooler, and secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Xenco Laboratories in Midland, Texas for standard turn-around times.

5.0 - LABORATORY ANALYTICAL METHODS

5.1 - Laboratory Analytical Methods

Groundwater samples were analyzed for BTEX utilizing EPA Method SW-846 8021B. Laboratory results for groundwater samples are summarized in Table 1. Laboratory results, including the executed chain of custody forms are provided in Appendix A.

6.0 - DATA EVALUATION

Apex compared the reported BTEX concentrations or laboratory method detection limits (MDL) associated with the groundwater samples collected from the Site to the applicable New Mexico Water Quality Control Commission Groundwater Quality Standards (WQCC).

6.1 - Annual Groundwater Analytical Monitoring

Groundwater samples were collected from monitoring wells MW-1 and MW-2 on September 24, 2021.

The laboratory analytical results for monitoring well MW-1 for benzene, toluene, ethylbenzene, and total xylene were 0.00756 mg/L J, 0.00145 mg/L J, <0.00657 mg/L, and 0.000678 mg/L J, respectively, which are below the applicable NMAC 19.15.29 Remediation Plan and below the applicable WQCC regulations. The laboratory analytical results for monitoring well MW-2 for benzene, toluene, ethylbenzene, and total xylene were <0.00408 mg/L, <0.00367 mg/L, <0.00657 mg/L, and <0.00642 mg/L, respectively, which are below the applicable NMAC 19.15.29 Remediation Plan and below the applicable WQCC regulations.



7.0 - FINDINGS AND CONCLUSIONS

Apex has the following findings and conclusions based on analytical results of the annual groundwater sampling event.

- The September 2021 BTEX concentrations in groundwater were not detected above the applicable WQCC regulatory limits, in samples collected from MW-1 and MW-2.

8.0 - RECOMMENDATIONS

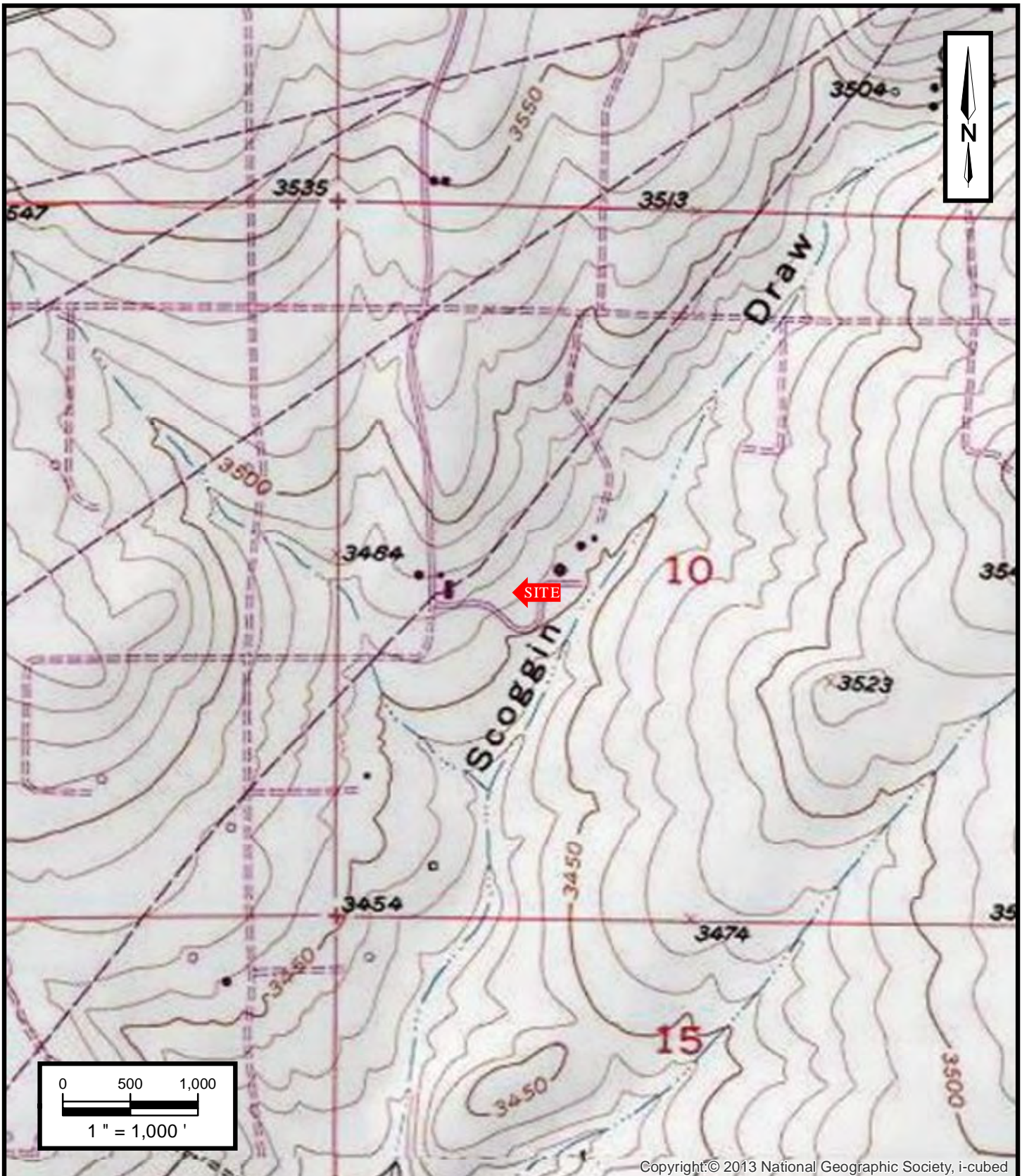
Based on the results of the groundwater monitoring activities, Apex has the following recommendations:

- Report the results of the investigation to the NMOCD; and
- Continue the groundwater monitoring program on an annual basis to evaluate potential impacts from the Artesia Tank Farm.





Figures



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Centurion Pipeline
Artesia Tank Farm
 Artesia, Eddy County, New Mexico
 32.761507 N, 104.270481 W

Project No. 725010670005

**Apex**

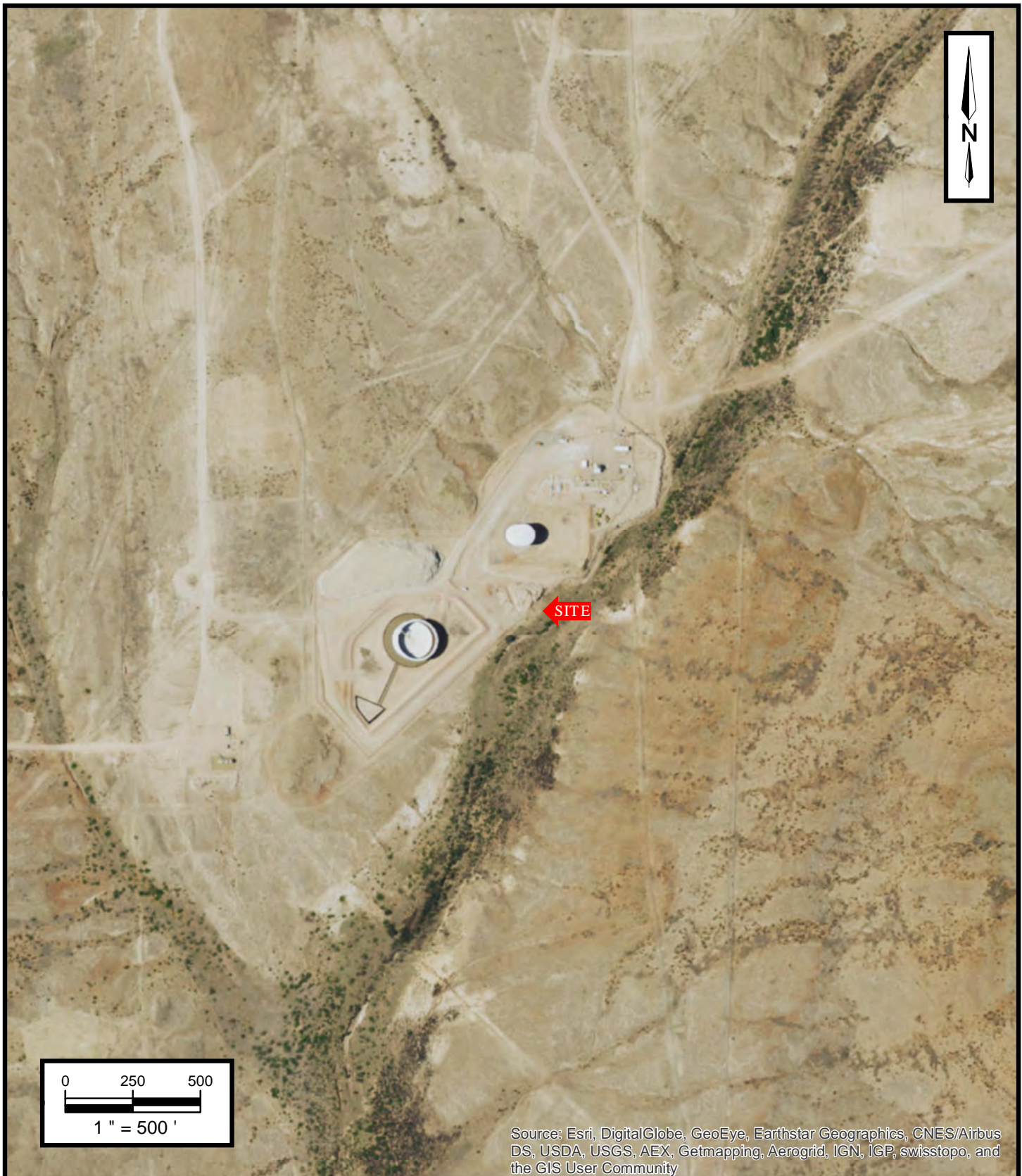
505 N Big Spring St., Suite 301A
 Midland, Texas 79701
 Phone: (432) 695-6016

www.apexcos.com

A Subsidiary of Apex Companies, LLC

FIGURE 1**Topographic Map**

Spring Lake, New Mexico Quadrangle
 1955



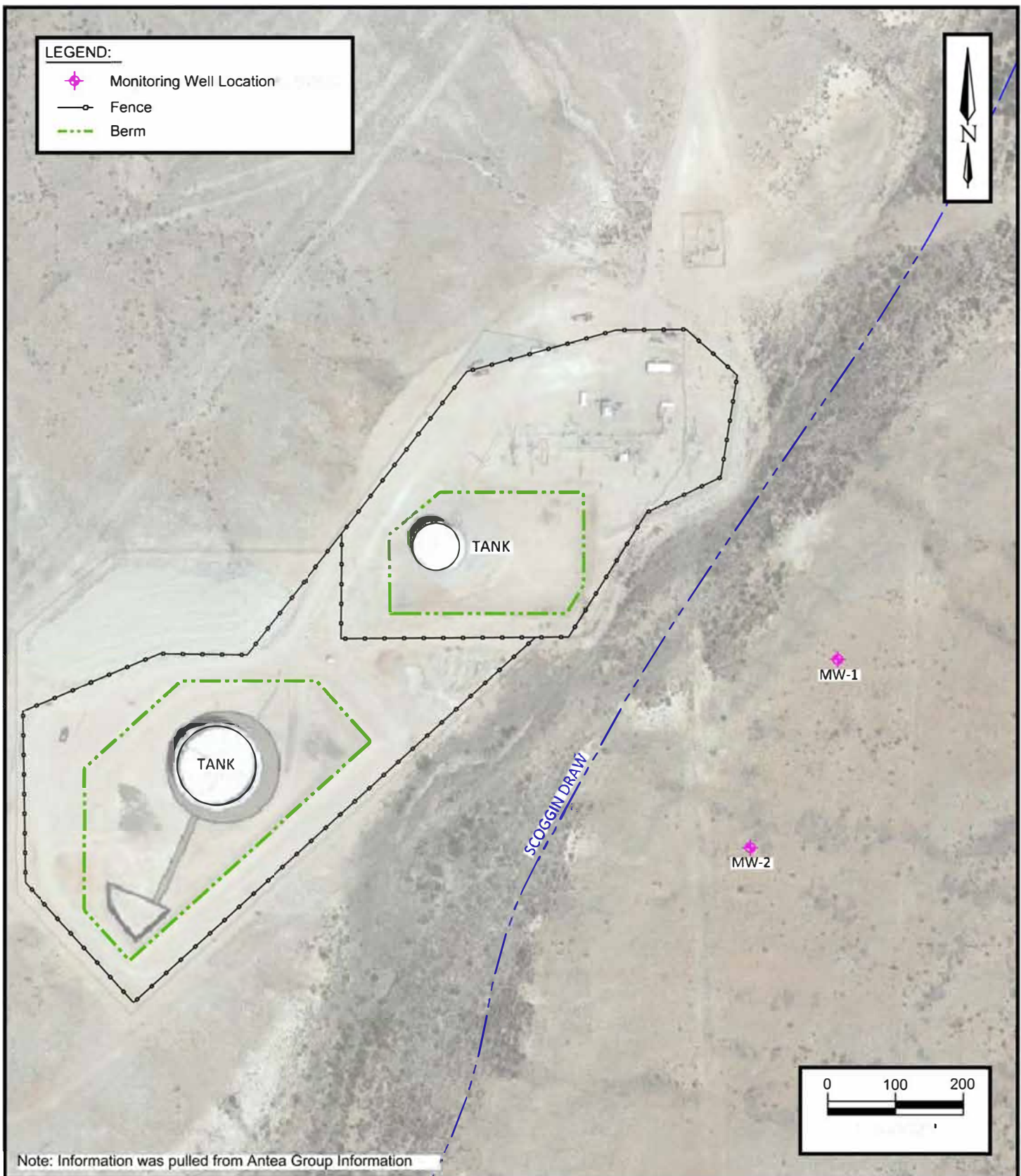
Centurion Pipeline
Artesia Tank Farm
Artesia, Eddy County, New Mexico
32.761507 N, 104.270481 W

Project No. 725010670005



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FIGURE 2
Site Vicinity Map



Centurion Pipeline
Artesia Tank Farm
Artesia, Eddy County, New Mexico
32.761507 N, 104.270481 W

Project No. 725010670005

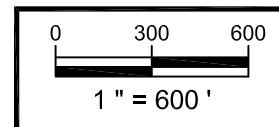
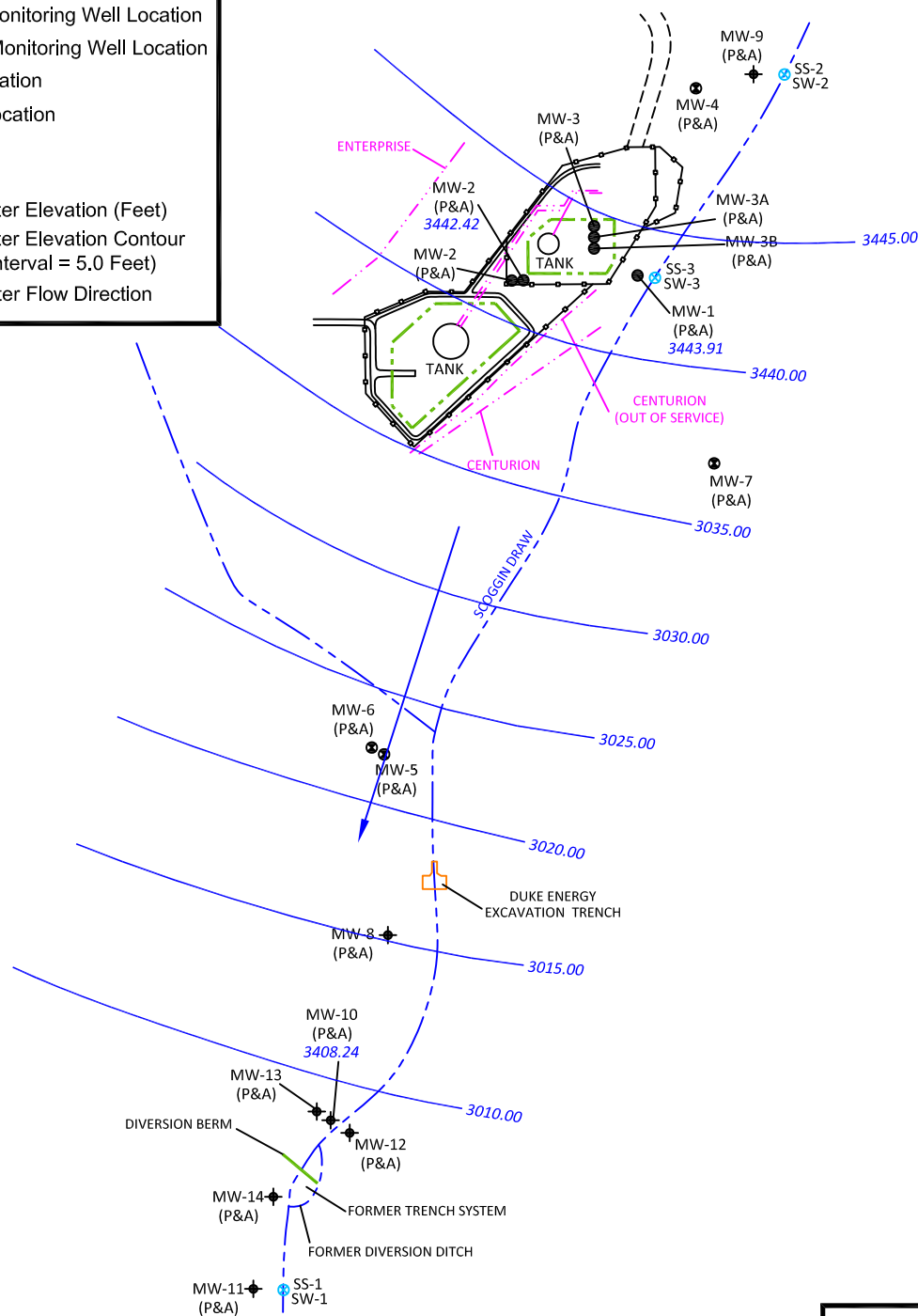


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FIGURE 3
Site Details Map

LEGEND:

- Monitoring Well Location (1993)
- ⊙ Phase II Monitoring Well Location
- ⊕ Phase III Monitoring Well Location
- ⊗ Boring Location
- Pipeline Location
- Fence
- Berm
- 3408.24 Groundwater Elevation (Feet)
- 3410.00 Groundwater Elevation Contour (Contour Interval = 5.0 Feet)
- Groundwater Flow Direction



Source: Historical Antea Group Information

**Centurion Pipeline
Artesia Tank Farm**Artesia, Eddy County, New Mexico
32.761507 N, 104.270481 W

Project No. 725010670005

**Apex**505 N. Big Springs Street, Suite 301A
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FIGURE 4**Groundwater Gradient Map
June 10, 2010**



Tables



TABLE 1
GROUNDWATER ANALYTICAL RESULTS
 Artesia Tank Farm, Eddy County, New Mexico

Sample I.D.	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		0.005	1.000	0.700	0.620
MW-1	11/30/16	0.00060	<0.00050	<0.00050	<0.00050
MW-1	07/12/17	<0.00060	<0.00050	<0.00050	<0.00050
MW-1	07/10/18	<0.000408	<0.000367	<0.000657	<0.00063
MW-1	09/27/19	<0.000408	<0.000367	<0.000657	<0.00063
MW-1	08/13/20	0.00047 J	* 0.00171 J	<0.000657	<0.00063
MW-1	09/24/21	0.000756 J	0.00145 J	<0.000657	0.000678 J
MW-2	11/30/16	0.0023 J	<0.00050	<0.00050	0.0035 J
MW-2	07/12/17	<0.00060	<0.00050	<0.00050	<0.00050
MW-2	07/10/18	<0.000408	<0.000367	<0.000657	<0.000630
MW-2	09/27/19	<0.000408	<0.000367	<0.000657	<0.000630
MW-2	08/13/20	0.00141 J	* 0.00175 J	<0.000657	0.00073 J
MW-2	09/24/21	<0.00408	<0.00367	<0.00657	<0.00642

J - Analyte detected below quantitation limit

* - detected in trip blank (0.00165 mg/L J)



TABLE 2 GROUNDWATER ELEVATIONS Artesia Tank Farm, Eddy County, New Mexico					
Monitoring Well ID	Measurement Date	Top-of-Casing Elevation (Feet AMSL)	Total Depth (Feet)	Depth to Water (Feet BTOC)	Groundwater Elevation (Feet AMSL)
MW-1	11/30/16	NS	60.00	28.99	ND
MW-1	07/12/17	NS	62.88	30.84	ND
MW-1	07/10/18	NS	---	---	ND
MW-1	09/27/19	NS	---	36.52	ND
MW-1	08/13/20	NS	62.60	33.67	ND
MW-1	09/24/21	NS	62.60	32.95	ND
MW-2	11/30/16	NS	60.00	27.98	ND
MW-2	07/12/17	NS	62.38	29.98	ND
MW-2	07/10/18	NS	---	---	ND
MW-2	09/27/19	NS	---	35.70	ND
MW-2	08/13/20	NS	62.30	33.02	ND
MW-2	09/24/21	NS	62.30	32.16	ND

BTOC - Below the top of casing

AMSL - Above Mean Sea Level

NS - Not surveyed

ND - Not Determined



APPENDIX A

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-6467-1

Laboratory Sample Delivery Group: CEN21-021

Client Project/Site: Artesia Tank Farm

For:

Apex Companies LLC
505 N Big Springs St
Suite 301A
Midland, Texas 79701

Attn: Aaron Sides

A handwritten signature in black ink, appearing to read "Mike Kimmel", is written over a horizontal line.

Authorized for release by:
9/30/2021 8:23:24 PM

Mike Kimmel, Project Manager
(214)902-0300
mike.kimmel@eurofinset.com

LINKS

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www.eurofinsus.com/Env

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.

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Laboratory Job ID: 880-6467-1
SDG: CEN21-021

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	6
QC Sample Results	7
QC Association Summary	9
Lab Chronicle	10
Certification Summary	11
Method Summary	12
Sample Summary	13
Chain of Custody	14
Receipt Checklists	15

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14

Definitions/Glossary

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
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.
α	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: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Job ID: 880-6467-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative
880-6467-1

Receipt

The samples were received on 9/24/2021 3:41 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 5.6°C

GC VOA

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

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Client Sample Results

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Client Sample ID: MW-1

Lab Sample ID: 880-6467-1

Date Collected: 09/24/21 11:00

Matrix: Water

Date Received: 09/24/21 15:41

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.756	J	2.00	0.408	ug/L			09/30/21 05:51	1
Toluene	1.45	J	2.00	0.367	ug/L			09/30/21 05:51	1
Ethylbenzene	<0.657	U	2.00	0.657	ug/L			09/30/21 05:51	1
m-Xylene & p-Xylene	0.678	J	4.00	0.629	ug/L			09/30/21 05:51	1
o-Xylene	<0.642	U	2.00	0.642	ug/L			09/30/21 05:51	1
Xylenes, Total	0.678	J	4.00	0.642	ug/L			09/30/21 05:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130		09/30/21 05:51	1
1,4-Difluorobenzene (Surr)	107		70 - 130		09/30/21 05:51	1

Client Sample ID: MW-2

Lab Sample ID: 880-6467-2

Date Collected: 09/24/21 12:05

Matrix: Water

Date Received: 09/24/21 15:41

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<4.08	U	20.0	4.08	ug/L			09/30/21 11:03	10
Toluene	<3.67	U	20.0	3.67	ug/L			09/30/21 11:03	10
Ethylbenzene	<6.57	U	20.0	6.57	ug/L			09/30/21 11:03	10
m-Xylene & p-Xylene	<6.29	U	40.0	6.29	ug/L			09/30/21 11:03	10
o-Xylene	<6.42	U	20.0	6.42	ug/L			09/30/21 11:03	10
Xylenes, Total	<6.42	U	40.0	6.42	ug/L			09/30/21 11:03	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		09/30/21 11:03	10
1,4-Difluorobenzene (Surr)	102		70 - 130		09/30/21 11:03	10

Client Sample ID: FB-01

Lab Sample ID: 880-6467-3

Date Collected: 09/24/21 12:10

Matrix: Water

Date Received: 09/24/21 15:41

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<4.08	U	20.0	4.08	ug/L			09/30/21 11:30	10
Toluene	<3.67	U	20.0	3.67	ug/L			09/30/21 11:30	10
Ethylbenzene	<6.57	U	20.0	6.57	ug/L			09/30/21 11:30	10
m-Xylene & p-Xylene	<6.29	U	40.0	6.29	ug/L			09/30/21 11:30	10
o-Xylene	<6.42	U	20.0	6.42	ug/L			09/30/21 11:30	10
Xylenes, Total	<6.42	U	40.0	6.42	ug/L			09/30/21 11:30	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130		09/30/21 11:30	10
1,4-Difluorobenzene (Surr)	107		70 - 130		09/30/21 11:30	10

Eurofins Xenco, Midland

Surrogate Summary

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Method: 8021B - Volatile Organic Compounds (GC)**Matrix: Water****Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
880-6467-1	MW-1	108	107
880-6467-2	MW-2	102	102
880-6467-3	FB-01	111	107
LCS 880-8514/65	Lab Control Sample	102	109
LCSD 880-8514/66	Lab Control Sample Dup	106	108
MB 880-8514/39	Method Blank	63 S1-	93
MB 880-8514/70	Method Blank	64 S1-	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

QC Sample Results

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8514/39

Matrix: Water

Analysis Batch: 8514

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.408	U	2.00	0.408	ug/L			09/29/21 13:21	1
Toluene	<0.367	U	2.00	0.367	ug/L			09/29/21 13:21	1
Ethylbenzene	<0.657	U	2.00	0.657	ug/L			09/29/21 13:21	1
m-Xylene & p-Xylene	<0.629	U	4.00	0.629	ug/L			09/29/21 13:21	1
o-Xylene	<0.642	U	2.00	0.642	ug/L			09/29/21 13:21	1
Xylenes, Total	<0.642	U	4.00	0.642	ug/L			09/29/21 13:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63	S1-	70 - 130		09/29/21 13:21	1
1,4-Difluorobenzene (Surr)	93		70 - 130		09/29/21 13:21	1

Lab Sample ID: MB 880-8514/70

Matrix: Water

Analysis Batch: 8514

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.408	U	2.00	0.408	ug/L			09/30/21 02:51	1
Toluene	<0.367	U	2.00	0.367	ug/L			09/30/21 02:51	1
Ethylbenzene	<0.657	U	2.00	0.657	ug/L			09/30/21 02:51	1
m-Xylene & p-Xylene	<0.629	U	4.00	0.629	ug/L			09/30/21 02:51	1
o-Xylene	<0.642	U	2.00	0.642	ug/L			09/30/21 02:51	1
Xylenes, Total	<0.642	U	4.00	0.642	ug/L			09/30/21 02:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130		09/30/21 02:51	1
1,4-Difluorobenzene (Surr)	93		70 - 130		09/30/21 02:51	1

Lab Sample ID: LCS 880-8514/65

Matrix: Water

Analysis Batch: 8514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	100	79.30		ug/L		79	70 - 130
Toluene	100	87.34		ug/L		87	70 - 130
Ethylbenzene	100	89.62		ug/L		90	70 - 130
m-Xylene & p-Xylene	200	193.2		ug/L		97	70 - 130
o-Xylene	100	100.3		ug/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-8514/66

Matrix: Water

Analysis Batch: 8514

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	100	77.79		ug/L		78	70 - 130	2	20

Eurofins Xenco, Midland

QC Sample Results

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

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

Lab Sample ID: LCSD 880-8514/66

Matrix: Water

Analysis Batch: 8514

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	100	85.14		ug/L		85	70 - 130	3	20
Ethylbenzene	100	87.61		ug/L		88	70 - 130	2	20
m-Xylene & p-Xylene	200	189.5		ug/L		95	70 - 130	2	20
o-Xylene	100	99.76		ug/L		100	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

QC Association Summary

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

GC VOA

Analysis Batch: 8514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6467-1	MW-1	Total/NA	Water	8021B	
880-6467-2	MW-2	Total/NA	Water	8021B	
880-6467-3	FB-01	Total/NA	Water	8021B	
MB 880-8514/39	Method Blank	Total/NA	Water	8021B	
MB 880-8514/70	Method Blank	Total/NA	Water	8021B	
LCS 880-8514/65	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-8514/66	Lab Control Sample Dup	Total/NA	Water	8021B	

Eurofins Xenco, Midland

Lab Chronicle

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Client Sample ID: MW-1**Date Collected: 09/24/21 11:00****Date Received: 09/24/21 15:41****Lab Sample ID: 880-6467-1****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	5 mL	5 mL	8514	09/30/21 05:51	MR	XEN MID

Client Sample ID: MW-2**Date Collected: 09/24/21 12:05****Date Received: 09/24/21 15:41****Lab Sample ID: 880-6467-2****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	5 mL	5 mL	8514	09/30/21 11:03	MR	XEN MID

Client Sample ID: FB-01**Date Collected: 09/24/21 12:10****Date Received: 09/24/21 15:41****Lab Sample ID: 880-6467-3****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	5 mL	5 mL	8514	09/30/21 11:30	MR	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Laboratory: Eurofins Xenco, Midland

The accreditations/certifications listed below are applicable to this report.

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

- 1
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Method Summary

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
5030B	Purge and Trap	SW846	XEN MID

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Apex Companies LLC
Project/Site: Artesia Tank Farm

Job ID: 880-6467-1
SDG: CEN21-021

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6467-1	MW-1	Water	09/24/21 11:00	09/24/21 15:41
880-6467-2	MW-2	Water	09/24/21 12:05	09/24/21 15:41
880-6467-3	FB-01	Water	09/24/21 12:10	09/24/21 15:41

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APEX

Office Location Midland505 N. Big Spring St 301AMidland, TX 79701Project Manager A. SiderLaboratory Eurofins XenoceAddress 1211 W. FloridaMidland, TX 79701Contact Mike Kimmett

Phone: _____

PO/SO #: _____

Sampler's Name

Sampler's Signature

John FaughtJohn FaughtProj No CEN21-021Project Name Aretasia Tank FarmNo/Type of Containers 129

Matrix	Date	Time	Com p	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 E Glass Jar	P/O
W	9/24/21	1100		MW-1			3			X
W	1	1205		MW-2			3			X
W	1	1210		FB-01			3			X

Lab Sample ID (Lab Use Only)

ANALY' REQUI



880-6467 Chain of Custody

CHAIN OF CUSTODY RECORD

880-6467

Lab use only
Due DateTemp of coolers when received (C°) 9.1
5.6

1 2 3 4 5

Page 1 of 1Turn around time ☒ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% RushRelinquished by (Signature) [Signature] Date 9/24/21 Time 1541 Received by (Signature) [Signature] Date 9/24/21 Time 1541

Relinquished by (Signature) _____ Date _____ Time _____ Received by (Signature) _____ Date _____ Time _____

Relinquished by (Signature) _____ Date _____ Time _____ Received by (Signature) _____ Date _____ Time _____

Relinquished by (Signature) _____ Date _____ Time _____ Received by (Signature) _____ Date _____ Time _____

Matrix Container WW - Wastewater VOA - 40 ml vial W - Water AG - Amber / Or Glass 1 Liter S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - Sludge O - Oil

Apex TITAN, Inc • 505 N Big Spring Street, Suite 301A • Midland, Texas 79701 • Office 432-695-6016

Login Sample Receipt Checklist

Client: Apex Companies LLC

Job Number: 880-6467-1

SDG Number: CEN21-021

Login Number: 6467

List Number: 1

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

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.	True	
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 93790

CONDITIONS

Operator: CENTURION PIPELINE L.P. 516 Veterans Airpark Lane Midland, TX 79705	OGRID:
	237722
	Action Number: 93790
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2021 Annual Groundwater Monitoring Report: Content is satisfactory 1. Continue to monitor groundwater wells and sample as prescribed by NMOC. 2 Continue removal of LNAPL when appropriate conditions are present and document these activities. 3. Submit the 2022 and 2023 Annual Groundwater Reports, unless already uploaded. GW Monitoring Report must be submitted no later than April 1, 2024.	9/25/2023