2017 ANNUAL GROUNDWATER REPORT
Property: Centurion Pipeline LP, Artesia Tank Farm
Section 10, Township 18 South, Range 27 East
Artesia, Eddy County, New Mexico
NMOCD Reference # 2RP-6

Apex Project No. 7250715068
April 2018

Prepared for:

Centurion Pipeline LP
3300 North A St
Midland, Texas 79705

Attention: Mr. Dusty Wilson

Prepared by:

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Section 10, Township 18 South, Range 27 East
Artesia, Eddy County, New Mexico
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Apex Project No. 725070489018

1.0 EXECUTIVE SUMMARY

In March 1993, a release of crude oil was discovered at the Artesia Pump Station 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 down 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.

Subsequent to New Mexico Oil Conservation Division (NMOCD) approval, all of the 14 monitoring well 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 generally trends associated with biodegradation of the residual petroleum hydrocarbons and 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.

Based on the results of the groundwater monitoring activities in July 2017, Apex has the following findings and recommendations:

- **Based on the annual analytical results of the July 2017 groundwater monitoring event, BTEX concentrations were not identified in monitoring wells MW-1 and MW-2 above the laboratory sample detection limits (SDLs), which are below the applicable New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards.**

- **Report the results of the annual groundwater sampling to the NMOCD; and,**

- **Continue the groundwater monitoring program on an annual basis to evaluate observe any potential source of contamination from the Artesia Tank Farm.**

2.0 INTRODUCTION

2.1 Site Description

The Centurion 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, hereinafter referred to as the "Site or subject Site". 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 in Appendix A.

2.2 Project Objective

The 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 BTEX utilizing Environmental Protection Agency (EPA) Method 8260.

2.3 Standard of Care

Apex services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same period. Apex makes no warranties, express or implied, as to the services performed hereunder. Additionally, Apex does not

warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

2.4 Reliance

This report has been prepared for the exclusive use of Centurion Pipeline LP, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Centurion Pipeline LP, and Apex. Any unauthorized distribution or reuse is at the client's sole risk. The foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.

3.0 SITE CHARACTERIZATION

3.1 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 located in the Artesia Group which consists of fine grain sandstones, evaporates, and dolostone.

3.2 Groundwater Flow Direction

Previous reports prepared by Antea Group indicate the groundwater flow direction (gradient) at the Site is generally south south-west. The shallow groundwater in the vicinity of 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 in Appendix A.

4.0 REGULATORY GUIDELINES

4.1 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 Office of 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 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 WQCC *Groundwater Quality Standards* of:

- 10 micrograms per liter (µg/L) for benzene
- 750 µg/L for toluene
- 750 µg/L for ethylbenzene
- 620 µg/L for xylenes

5.0 SAMPLING PROGRAM

5.1 Groundwater Sampling Program

Apex's groundwater sampling program consisted of collecting one (1) groundwater sample from each monitoring well. One (1) groundwater sampling event occurred during 2017. The groundwater sampling event in July 2017 included both monitoring wells on-site.

Before sample collection, Apex gauged depth to fluids in each monitoring well utilizing an electronic water level meter, capable of detecting phase separated hydrocarbons (PSH). PSH was not identified in either of the monitoring wells.

After Apex gauged depths to fluids in each monitoring well, each monitoring well was micro-purged utilizing low-flow sampling techniques for sample collection. Low-flow refers to the velocity with which groundwater enters the pump intake, and that is imparted from the formation pore water in the immediate vicinity of the well screen. It does not necessarily refer to the flow rate of water discharged at the surface which can be affected by flow regulators or restrictions. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system to the extent practical taking into account established Site sampling objectives. Flow rates on the order of 0.1 to 0.5 Liters/minute (L/min) were maintained during the sampling activities.

The utilization of low-flow minimal drawdown techniques enables the isolation of the screened interval groundwater from the overlying stagnant casing water. The pump intake is placed within the screened interval such that the groundwater recovered is drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

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 ALS Laboratories in Houston, Texas for standard turn-around times.

Groundwater sample analytical results are presented in Table 1 in Appendix C.

6.0 LABORATORY ANALYTICAL METHODS

6.1 Laboratory Analytical Program

Groundwater samples were analyzed for BTEX utilizing EPA Method SW-846 8260.

Laboratory results for groundwater samples are summarized in Table 1, Appendix B. Laboratory results, including the executed chain-of-custody forms are provided in Appendix C.

7.0 DATA EVALUATION

7.1 Annual Groundwater Analytical Monitoring

Before sample collection, Apex gauged the depth to groundwater to the nearest 0.01 foot utilizing an electronic water level meter. Groundwater samples were collected from monitoring wells MW-1 and MW-2 on July 12, 2017.

Benzene, Toluene, Ethylbenzene and Xylene

The laboratory analytical results for monitoring well MW-1 and MW-2 for benzene, toluene, ethylbenzene, and xylene were <0.60 µg/L), <0.50 µg/L, <0.50 µg/L, and <0.50 µg/L, respectively, which are below the applicable NMAC 19.15.29 Remediation Plan and below the applicable WQCC regulations.

8.0 FINDINGS AND CONCLUSIONS

Based on analytical results of the annual groundwater sampling event, Apex has the following findings and conclusions:

- Based on the annual analytical results of the July 2017 groundwater monitoring event, BTEX concentrations were not identified in monitoring wells MW-1 and MW-2 above the laboratory SDLs, which are below applicable WQCC.

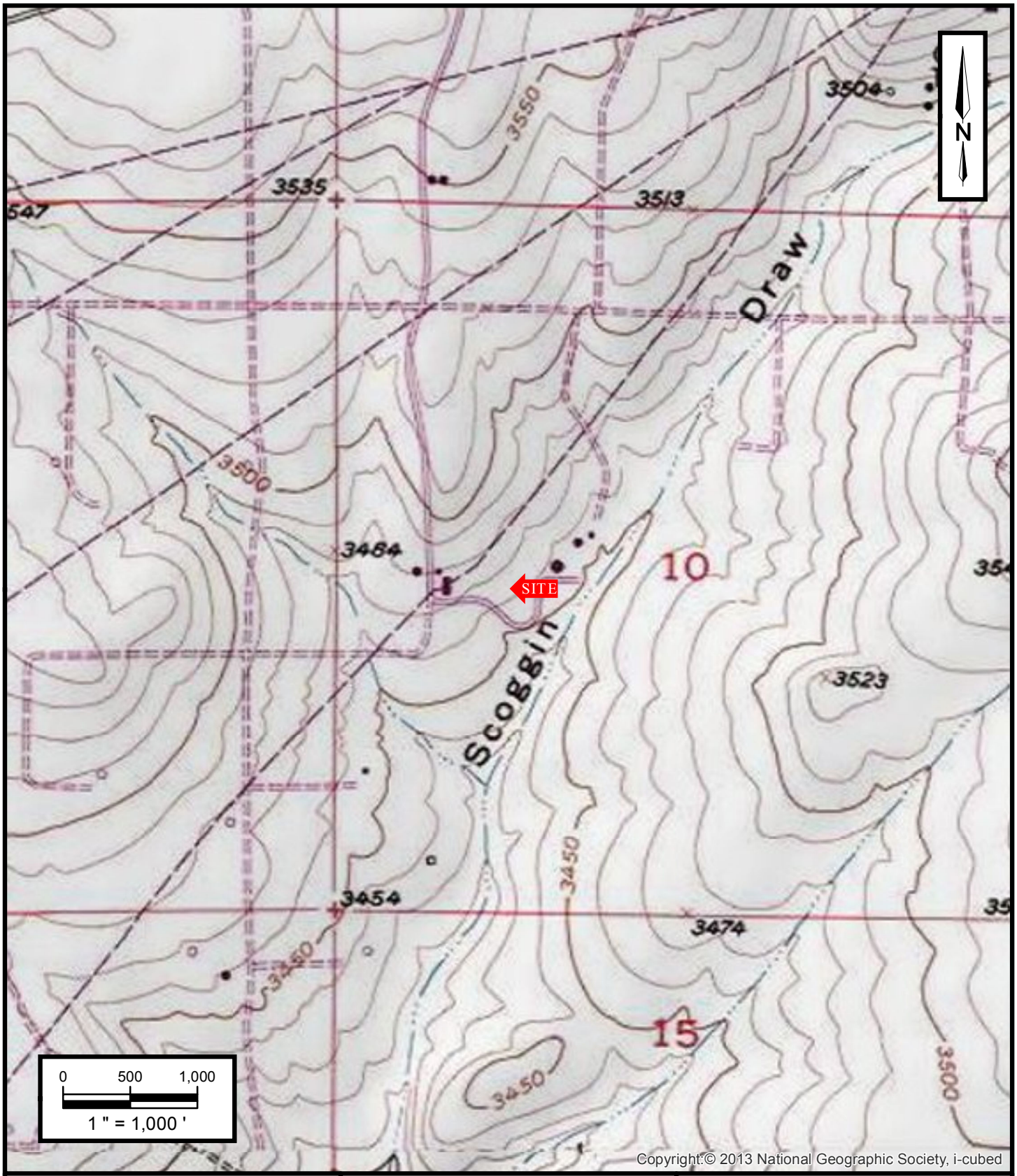
9.0 RECOMMENDATIONS

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 observe any potential source of contamination from the Artesia Tank Farm.**

APPENDIX A

Figures



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

Project No. 725070489018

Apex
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Phone: (432) 695-6016
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A Subsidiary of Apex Companies, LLC

FIGURE 1

Topographic Map

Spring Lake, New Mexico Quadrangle
1955

Z:\Houston South\Drafting\Midland 07\2015\7250715068\Figure 1.mxd 11/12/2015 NAD 1983 2011 StatePlane New Mexico East FIPS 3001 Ft US Projected Coordinate System

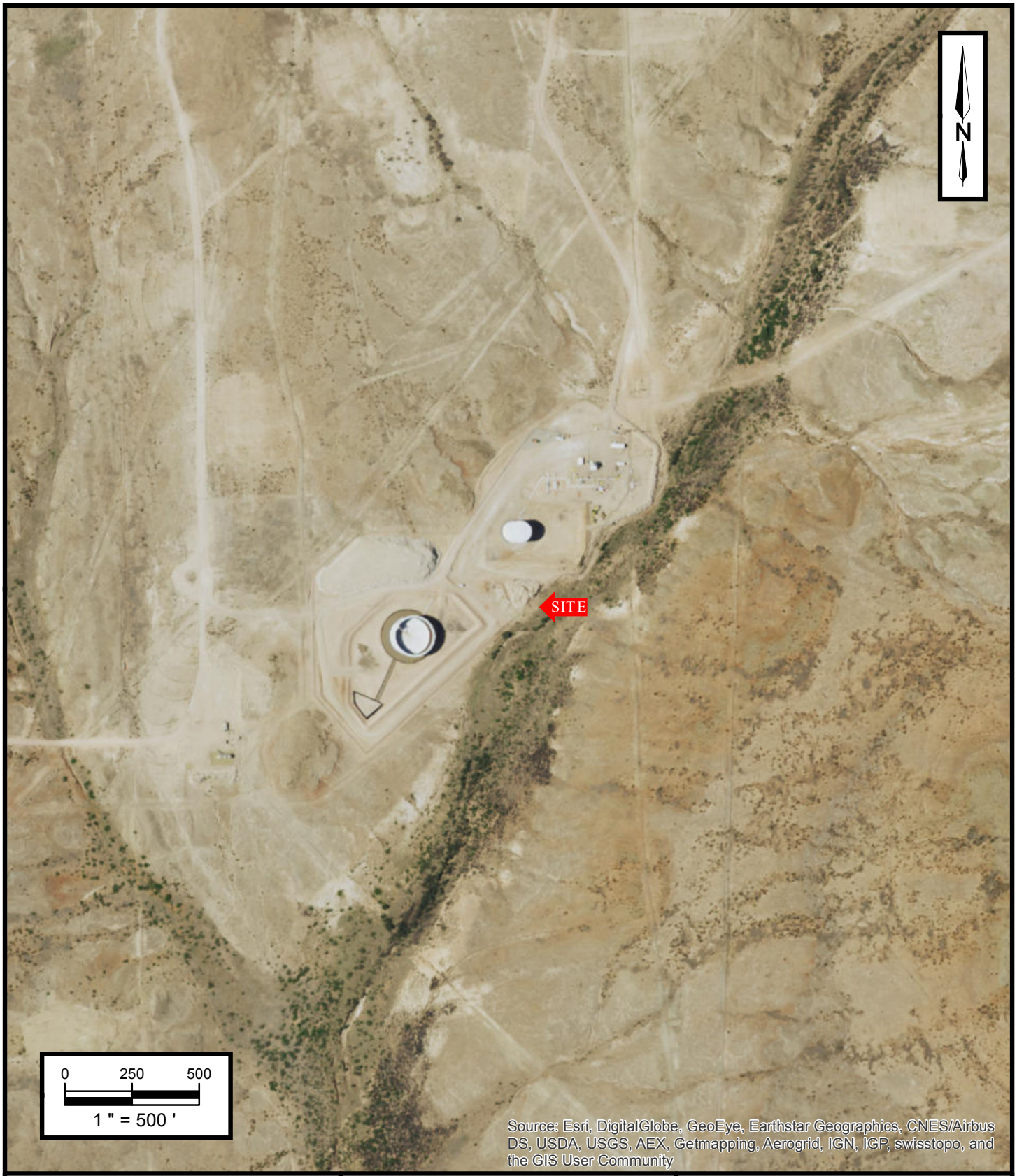

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FIGURE 2

Site Vicinity Map

Z:\Houston South\Drafting\Midland 07\2015\7250715068\Figure 2.mxd 11/12/2015 WGS 1984 Web Mercator Auxiliary Sphere Projected Coordinate System

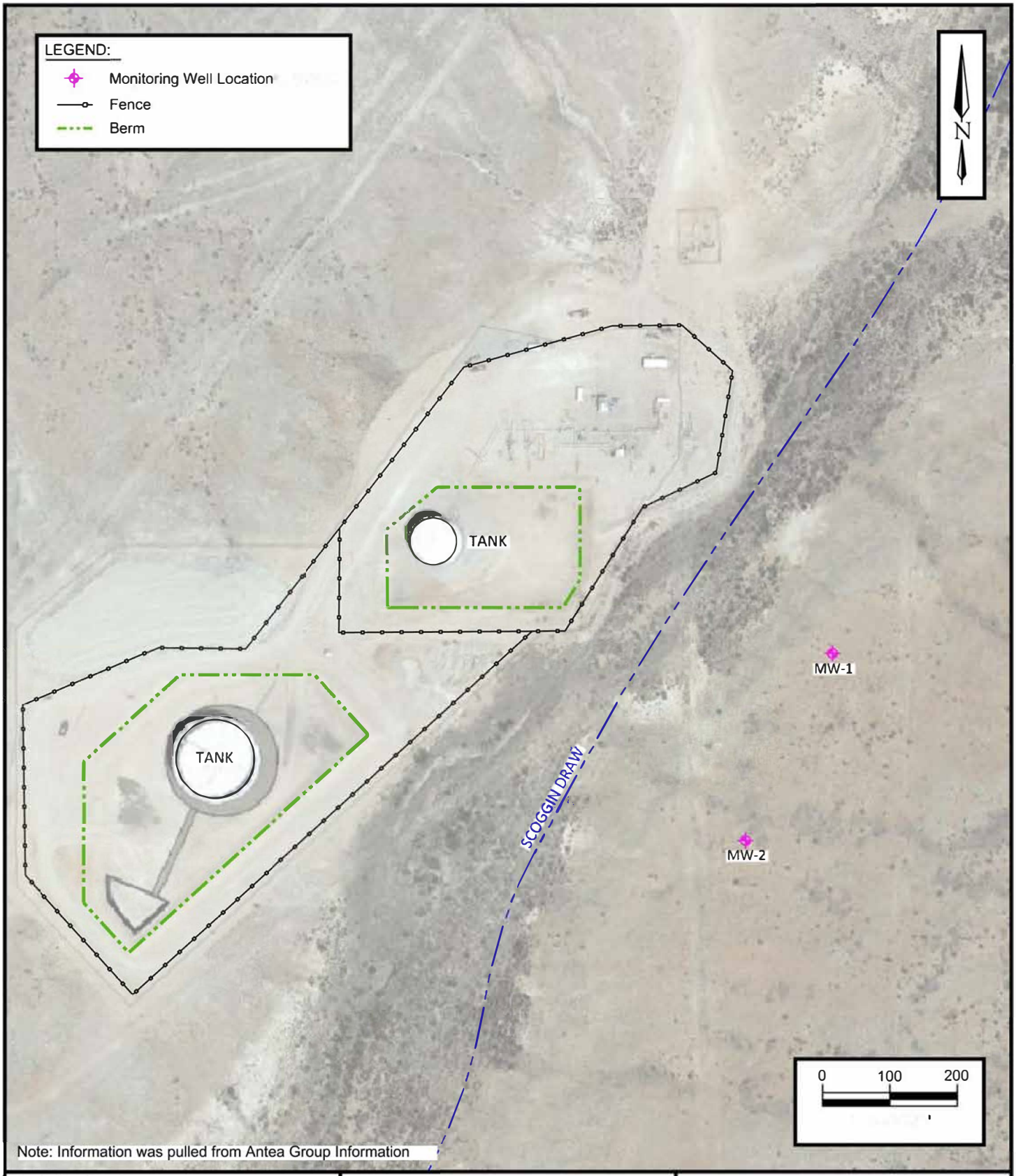

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FIGURE 3

Site Details Map

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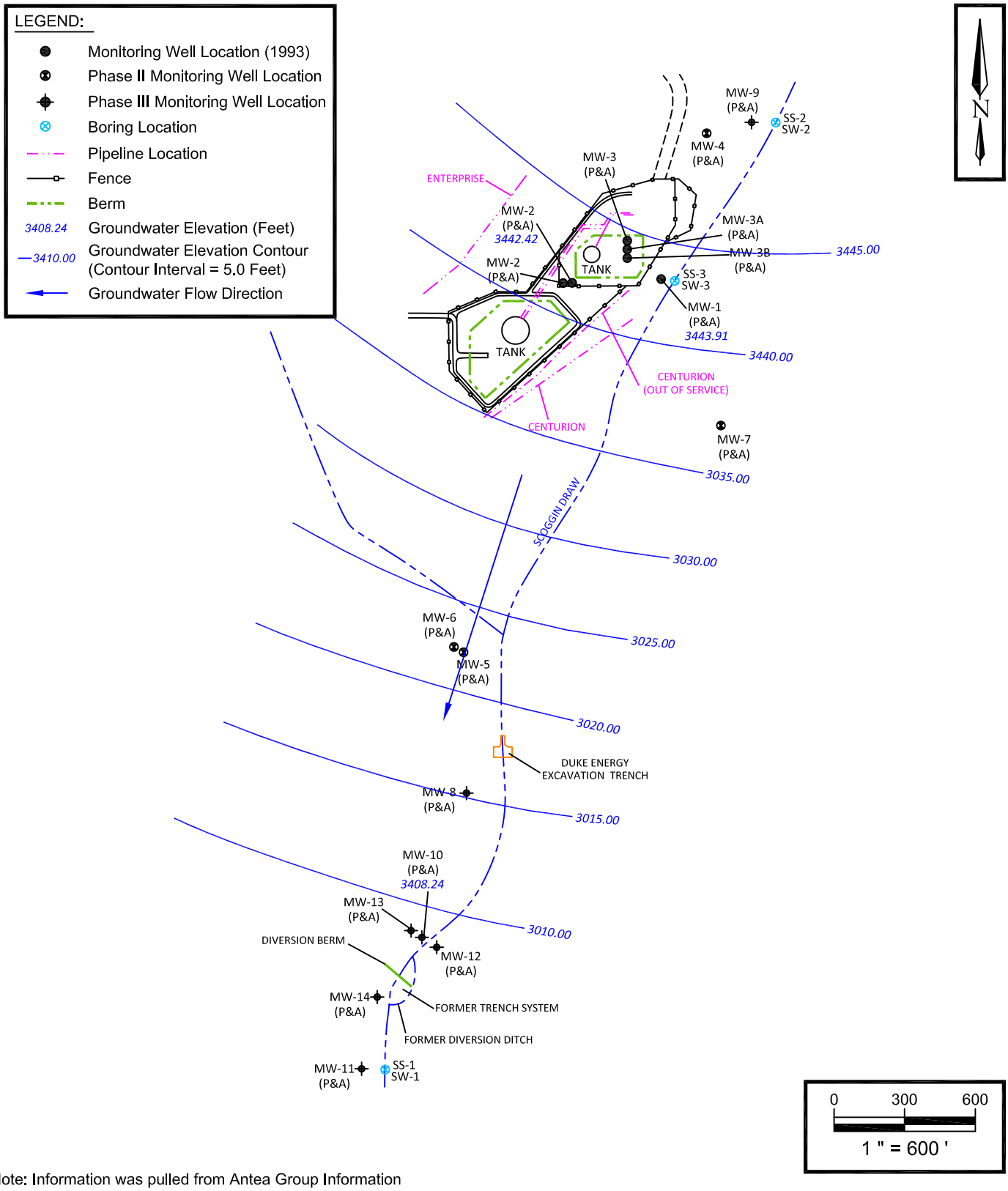

Note: Information was pulled from Antea Group Information

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FIGURE 4

Groundwater Gradient Map
June 10, 2010

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APPENDIX B

Tables

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

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10	750	750	620
MW-1	11/30/16	0.60	<0.50	<0.50	<0.50
	07/12/17	<0.60	<0.50	<0.50	<0.50
MW-2	11/30/16	2.3 J	<0.50	<0.50	3.5 J
	07/12/17	<0.60	<0.50	<0.50	<0.50

ND - Non detectable

NA - Not available

µg/L- micrograms per Liter

J - Analyte detected below quantitation limit

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)	Corrected Groundwater Elevation (Feet AMSL)
MW-1	11/30/16	NS	60.00	28.99	ND
	07/12/17	NS	62.88	30.84	ND
MW-2	11/30/16	NS	60.00	27.98	ND
	07/12/17	NS	62.38	29.98	ND

BTOC - Below the top of casing
AMSL - Above Mean Sea Level
NS - Not surveyed
ND - Not Determined

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

July 20, 2017

Adrian Baker
Apex Titan
505 N. Big Spring Street, Suite 301A
Midland, TX 79701

Work Order: **HS17070699**

Laboratory Results for: **Centurion Artesia Tank Farm**

Dear Adrian,

ALS Environmental received 3 sample(s) on Jul 13, 2017 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: Dane.Wacasey
Dane J. Wacasey

Client: Apex Titan
Project: Centurion Artesia Tank Farm
Work Order: HS17070699

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS17070699-01	MW-1	Water		12-Jul-2017 13:10	13-Jul-2017 08:26	☐
HS17070699-02	MW-2	Water		12-Jul-2017 14:10	13-Jul-2017 08:26	☐
HS17070699-03	Trip Blank	Water	NON ALS	12-Jul-2017 00:01	13-Jul-2017 08:26	☑

Client: Apex Titan **CASE NARRATIVE**
Project: Centurion Artesia Tank Farm
Work Order: HS17070699

GCMS Volatiles by Method SW8260

Batch ID: R298446

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Apex Titan
Project: Centurion Artesia Tank Farm
Sample ID: MW-1
Collection Date: 12-Jul-2017 13:10

ANALYTICAL REPORT
WorkOrder:HS17070699
Lab ID:HS17070699-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		**Method:SW8260**					Analyst: AKP
Benzene		U	0.00060	0.0050	mg/L	1	19-Jul-2017 21:53
Ethylbenzene		U	0.00050	0.0050	mg/L	1	19-Jul-2017 21:53
Toluene		U	0.00050	0.0050	mg/L	1	19-Jul-2017 21:53
Xylenes, Total		U	0.00050	0.0050	mg/L	1	19-Jul-2017 21:53
Total BTEX		U	0.00050	0.0050	mg/L	1	19-Jul-2017 21:53
Surr: 1,2-Dichloroethane-d4	*99.3*			*70-126*	*%REC*	*1*	*19-Jul-2017 21:53*
Surr: 4-Bromofluorobenzene	*98.5*			*81-113*	*%REC*	*1*	*19-Jul-2017 21:53*
Surr: Dibromofluoromethane	*101*			*77-123*	*%REC*	*1*	*19-Jul-2017 21:53*
Surr: Toluene-d8	*101*			*82-127*	*%REC*	*1*	*19-Jul-2017 21:53*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Apex Titan
Project: Centurion Artesia Tank Farm
Sample ID: MW-2
Collection Date: 12-Jul-2017 14:10

ANALYTICAL REPORT
WorkOrder:HS17070699
Lab ID:HS17070699-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	**Method:SW8260**						Analyst: AKP
Benzene		U	0.00060	0.0050	mg/L	1	19-Jul-2017 22:18
Ethylbenzene		U	0.00050	0.0050	mg/L	1	19-Jul-2017 22:18
Toluene		U	0.00050	0.0050	mg/L	1	19-Jul-2017 22:18
Xylenes, Total		U	0.00050	0.0050	mg/L	1	19-Jul-2017 22:18
Total BTEX		U	0.00050	0.0050	mg/L	1	19-Jul-2017 22:18
Surr: 1,2-Dichloroethane-d4	*104*			*70-126*	*%REC*	*1*	*19-Jul-2017 22:18*
Surr: 4-Bromofluorobenzene	*102*			*81-113*	*%REC*	*1*	*19-Jul-2017 22:18*
Surr: Dibromofluoromethane	*101*			*77-123*	*%REC*	*1*	*19-Jul-2017 22:18*
Surr: Toluene-d8	*101*			*82-127*	*%REC*	*1*	*19-Jul-2017 22:18*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Apex Titan
Project: Centurion Artesia Tank Farm
WorkOrder: HS17070699

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R298446	**Test Name :** VOLATILES - SW8260C			**Matrix:** Water		
HS17070699-01	MW-1	12 Jul 2017 13:10			19 Jul 2017 21:53	1
HS17070699-02	MW-2	12 Jul 2017 14:10			19 Jul 2017 22:18	1

Client: Apex Titan
Project: Centurion Artesia Tank Farm
WorkOrder: HS17070699

QC BATCH REPORT

Batch ID: R298446 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-170719** Units: **ug/L** Analysis Date: **19-Jul-2017 14:53**
Client ID: Run ID: **VOA2_298446** SeqNo: **4164283** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	5.0								
Total BTEX	U	5.0								
Surr: 1,2-Dichloroethane-d4	*50.33*	*0*	*50*	*0*	*101*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*49.41*	*0*	*50*	*0*	*98.8*	*82 - 115*				
Surr: Dibromofluoromethane	*50.34*	*0*	*50*	*0*	*101*	*73 - 126*				
Surr: Toluene-d8	*49.94*	*0*	*50*	*0*	*99.9*	*81 - 119*				

LCS Sample ID: **VLCSW-170719** Units: **ug/L** Analysis Date: **19-Jul-2017 14:04**
Client ID: Run ID: **VOA2_298446** SeqNo: **4164282** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	43.06	5.0	50	0	86.1	74 - 120				
Ethylbenzene	43.83	5.0	50	0	87.7	77 - 117				
Toluene	44.51	5.0	50	0	89.0	77 - 118				
Xylenes, Total	135	5.0	150	0	90.0	75 - 122				
Total BTEX	266.4	5.0	300	0	88.8	70 - 130				
Surr: 1,2-Dichloroethane-d4	*51.89*	*0*	*50*	*0*	*104*	*70 - 130*				
Surr: 4-Bromofluorobenzene	*50.58*	*0*	*50*	*0*	*101*	*82 - 115*				
Surr: Dibromofluoromethane	*48.28*	*0*	*50*	*0*	*96.6*	*73 - 126*				
Surr: Toluene-d8	*48.32*	*0*	*50*	*0*	*96.6*	*81 - 119*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Apex Titan
Project: Centurion Artesia Tank Farm
WorkOrder: HS17070699

QC BATCH REPORT

Batch ID: R298446 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS17070861-02MS** Units: **ug/L** Analysis Date: **19-Jul-2017 16:07**
Client ID: Run ID: **VOA2_298446** SeqNo: **4164285** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.81	5.0	50	0	89.6	70 - 127				
Ethylbenzene	45.75	5.0	50	0	91.5	70 - 124				
Toluene	46.37	5.0	50	0	92.7	70 - 123				
Xylenes, Total	139.6	5.0	150	0	93.1	70 - 130				
Total BTEX	276.5	5.0	300	0	92.2	70 - 130				
Surr: 1,2-Dichloroethane-d4	*52.96*	*0*	*50*	*0*	*106*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*50.64*	*0*	*50*	*0*	*101*	*81 - 113*				
Surr: Dibromofluoromethane	*49.55*	*0*	*50*	*0*	*99.1*	*77 - 123*				
Surr: Toluene-d8	*48.88*	*0*	*50*	*0*	*97.8*	*82 - 127*				

MSD Sample ID: **HS17070861-02MSD** Units: **ug/L** Analysis Date: **19-Jul-2017 16:32**
Client ID: Run ID: **VOA2_298446** SeqNo: **4164286** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	43.36	5.0	50	0	86.7	70 - 127	44.81	3.3	20	
Ethylbenzene	46.18	5.0	50	0	92.4	70 - 124	45.75	0.941	20	
Toluene	46.34	5.0	50	0	92.7	70 - 123	46.37	0.0605	20	
Xylenes, Total	140.1	5.0	150	0	93.4	70 - 130	139.6	0.334	20	
Total BTEX	276	5.0	300	0	92.0	70 - 130	276.5	0.212	20	
Surr: 1,2-Dichloroethane-d4	*52.27*	*0*	*50*	*0*	*105*	*70 - 126*	*52.96*	*1.32*	*20*	
Surr: 4-Bromofluorobenzene	*51.1*	*0*	*50*	*0*	*102*	*81 - 113*	*50.64*	*0.912*	*20*	
Surr: Dibromofluoromethane	*48.42*	*0*	*50*	*0*	*96.8*	*77 - 123*	*49.55*	*2.32*	*20*	
Surr: Toluene-d8	*49.23*	*0*	*50*	*0*	*98.5*	*82 - 127*	*48.88*	*0.705*	*20*	

The following samples were analyzed in this batch: HS17070699-01 HS17070699-02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Apex Titan
Project: Centurion Artesia Tank Farm
WorkOrder: **HS17070699**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kansas	E-10352 2016-2017	31-Jul-2017
Kentucky	123043	30-Apr-2018
Louisiana	03087 2017-2017	30-Jun-2018
North Carolina	624-2017	31-Dec-2017
North Dakota	R193 2017-2017	30-Apr-2018
Oklahoma	2016-122	31-Aug-2017
Texas	T104704231-17-18	30-Apr-2018

Sample Receipt Checklist

Client Name: Apex Titan-Midland
Work Order: HS17070699
Date/Time Received: **13-Jul-2017 08:26**
Received by: **CL**

Checklist completed by: *Cesar A. Lira* eSignature — 14-Jul-2017 Date
Reviewed by: *Dane J. Wacasey* eSignature — 17-Jul-2017 Date

Matrices: **Water**
Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☑
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8c/3.3c uc/c	IR15	
Cooler(s)/Kit(s):	M. Red		
Date/Time sample(s) sent to storage:	7/13/2017 1900		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes: MW-2 labels no collection time; COC: 1410

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY RECORD

APEX

Office Location: 505 N. Big Spring St. Suite 301A Midland, TX 79701

Project Manager: A. Baker

Laboratory: ALS Lab Group

Address: 10750 Stancliff RD Suite 210 Houston, TX

Contact: Dane Wacasey

Phone:

PO/SO #: 7250704189018

Sampler's Name: Kallen Kaak, Simon Hidgens

Sampler's Signature: [signature]

ANALYSIS REQUESTED: BTEX (8260)

Lab use only

Due Date:

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Page 1 of 1

HS17070699

Apex Titan

Centurion Artesia Tank Farm

Proj. No.: 725070489018

Project Name: Artesia Tank Farm

No/Type of Containers: 9

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	BTEX (8260)
W	7-12-17	1310		X	MW-1			3					X
W	7-12-17	1410		X	MW-2			3					X
W								3					X

N.E.F. Kallen Kaak

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
Kallen Kaak	7-12-17	1600	[signature]	7-13-17	0826

NOTES: TRK# 7796 0486 5574

M. Red 2.8 IR#15 cf+0.5

Matrix: WW - Wastewater, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - sludge, O - Oil

Container: VOA - 40 ml vial, A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

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After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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CUSTODY SEAL M. Red
DATE 7-12-17
SIGNATURE
QEC 7/13/17
Quality Environmental Containers
800-255-3950 • 304-255-3900

M. Red JUL 13 2017

CUSTODY SEAL M Red
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