SITE INFORMATION

Report Type: Closure Report 1RP-4744

General Site Information:						
Site:	**Speedy 16 State Com 501H**					
Company:	**EOG Resources**					
Section, Township and Range	**B**	**Sec. 16**	**T 22S**	**R 33E**		
Lease Number:	**API No. 30-025-435860000**					
County:	**Lea County**					
GPS:	**32.3990º N**			**103.5769º W**		
Surface Owner:	NM State Lands					
Mineral Owner:	NM State Lands					
Directions:	From the Inersection of Hwy 128 and Hwy 18 Head West on 128 approx 21m and turn right on Deleware Basin Rd. Go 6m North turn West and go 2.4M Turn North and go approx 8M down the lease road until arrive on location					

Release Data:	
Date Released:	6/27/2017
Type Release:	Produced Water
Source of Contamination:	Water Truck
Fluid Released:	240bbls
Fluids Recovered:	0bbls

Official Communication:			
Name:	Jamon Hohensee		Ike Tavarez
Company:	EOG Resources		Tetra Tech
Address:	5509 Champions Dr		4000 N. Big Spring
			Ste 401
City:	Midland Texas, 79706		Midland, Texas
Phone number:	(432) 556-8074		(432) 687-8110
Fax:			
Email:	jamon_hohensee@eogresources.com		Ike.Tavarez@tetratech.com

Ranking Criteria		
Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	***0***	***400'***
WellHead Protection:	***Ranking Score***	***Site Data***
Water Source <1,000 ft., Private <200 ft.	*20*	
Water Source >1,000 ft., Private >200 ft.	***0***	*0*
Surface Body of Water:	***Ranking Score***	***Site Data***
<200 ft.	*20*	
200 ft - 1,000 ft.	10	
>1,000 ft.	***0***	*0*
Total Ranking Score:	***0***	

Acceptable Soil RRAL (mg/kg)		
Benzene	***Total BTEX***	***TPH***
10	50	5,000

TETRA TECH

APPROVED
By Olivia Yu at 5:59 pm, Oct 02, 2018

September 27, 2017

NMOCD grants approval to 1RP-4744.

Ms. Olivia Yu
Environmental Engineer Specialist
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Closure Report for the EOG Resources, Speedy 16 State Com 501H, Unit B, Section 16, Township 22 South, Range 33 East, Lea County, New Mexico. 1RP-4744

Ms. Yu:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess and remediate a spill that occurred at the Speedy 16 State Com 501H, Unit B, Section 16, Township 22 South, Range 33 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.3990º, W 103.5769º. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the release was discovered on July 27, 2017. Approximately two hundred and forty (240) barrels of produced water was released from an illegal dump by a water haul truck. None of the fluids were recovered. The release impacted an area measuring approximately 50' x 200' in the pasture and migrated onto the adjacent two-track road impacting an area measuring approximately 10' x 1,400'. The initial C-141 form is included in Appendix A. The release areas are shown on Figure 3.

Groundwater

No water wells were listed within Section 16 on the New Mexico Office of the State Engineer database. According to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in this area is approximately 425' below surface. The groundwater data is shown in Appendix B.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene,

Tetra Tech
4000 North Big Spring, Suite 401, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On July 13 and 14, 2017, Tetra Tech personnel were onsite to sample the release area and supervise the remediation of the impacted soils. Based on the visual observation, the spill foot print was well defined at the surface. A total of ten (10) trenches (T-1 through T-10) were installed to depths ranging from 1.0' to 9.0' below surface using backhoe and trackhoe. Trenches (T-1, T-2, and T-3) were installed in the pasture area and trenches (T-4 through T-10) were installed along the two-track area.

Tetra Tech personnel field screened selected samples for salinity using an ExStick II EC400 meter. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1. The trench locations are shown on Figure 3.

Referring to Table 1, none of the samples collected exceeded the RRALs for TPH, benzene or total BTEX. All of the samples showed benzene and BTEX concentrations below the laboratory reporting limit. The TPH concentrations ranged from <14.9 to 18.5 mg/kg.

However, elevated chloride concentrations were detected in the shallow soils. In the pasture, the areas of trenches (T-1, T-2 and T-3) showed chloride highs of 6,550 mg/kg at 1.0', 2,170 mg/kg at 0'-1', and 8,730 mg/kg at 1.0' below surface respectively. The chloride concentrations significantly declined with depth between 2.0' and 4.0' below surface.

In the area of trench (T-3), elevated chlorides were detected in the shallow soils from surface to 2.0', which then declined with depth at 4.0' below surface. The samples collected at 4.0' and 7.0' below surface did not show significant chlorides to the soils with concentrations of 180 mg/kg and 66.5 mg/kg, respectively. However, a chloride spike of 822 mg/kg was detected at 9.0' below surface. The sample was re-analyzed to confirm and showed a chloride concentration of 748 mg/kg. Based on the sample detected at 4.0' and 7.0', the chloride spike at 9.0' appears to have been cross-contaminated with the upper impacted soils due to sloughing of material to the trench bottom during sampling.

The areas of trenches (T-4, T-5, T-6, T-7, T-8, T-9 and T-10) installed along the two-track area also showed a shallow impact to the soils. The areas of trenches (T-6 and T-10) did not any significant chlorides to the soil. However, the remaining trenches (T-4, T-5, T-7, T-8 and T-9) detected elevated chlorides at 0-1' ranging from 2,550 mg/kg (T-4) to 6,300 mg/kg (T-8) and significantly declined at 2.0' below surface.

TETRA TECH

Soil Remediation and Confirmation Samples

Based on the shallow impact and weather events at that time, EOG requested the impacted area be excavated immediately to prevent further leaching of the impact due to time and forecasted rain. On August 10 and 11, 2017, Tetra Tech personnel were onsite to supervise the excavation and remediation activities and collect confirmation samples. The excavation areas and depths are highlighted (green) in Table 1 and shown on Figure 4. The pasture area was excavated to a depth of 2.5'-3.0' below surface and 1.5'-2.0' in the area of the two track.

One excavated to the appropriate depths, Tetra Tech collected confirmation samples from the areas which were analyzed for chlorides by EPA method 300.0. Copies of the chain-of-custody are included in Appendix C. The confirmation sample results are shown in Table 2. The confirmation sample areas are shown on Figure 4.

Referring to Table 2, none of the bottom hole or sidewall samples collected showed elevated chloride concentrations to the soils, with chlorides ranging from <4.93 mg/kg to 409 mg/kg. Approximately 1,890 cubic yards were removed from the area and stockpiled onsite pending disposal. The excavated areas were backfield with clean material to surface grade.

Conclusion and Recommendations

Based on the remediation work performed and the confirmation sampling laboratory results, EOG Resources requests closure of this spill issue. The final C-141 is shown in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call me at (432) 682-4559.

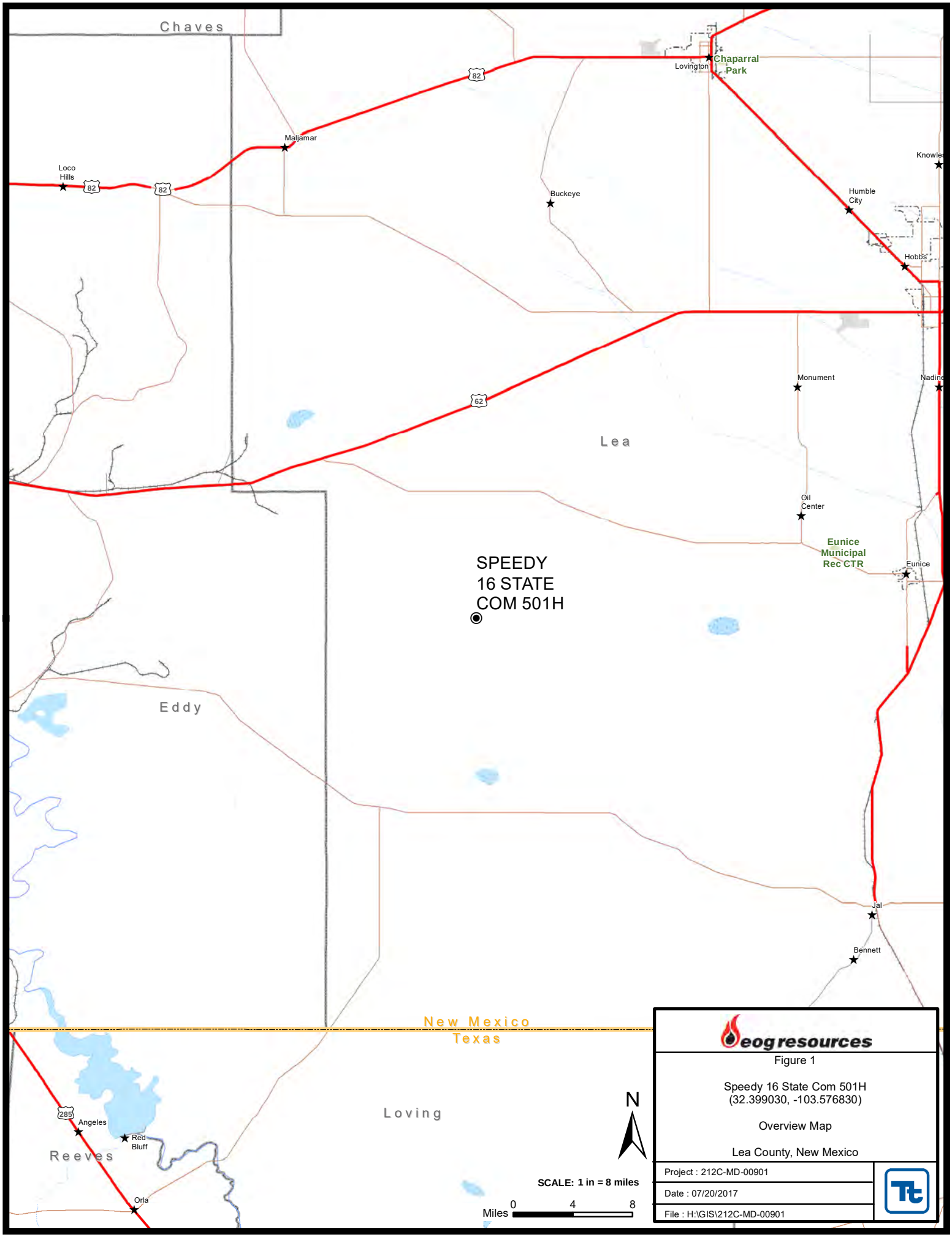
Respectfully submitted,
TETRA TECH

Clair Gonzales,
Geologist I

Ike Tavarez,
Senior Project Manager, P.G.

EOG – Jamon Hohensee
EOG – Zane Kurtz
SLO – Amber Groves

Figures



eog resources

Figure 1

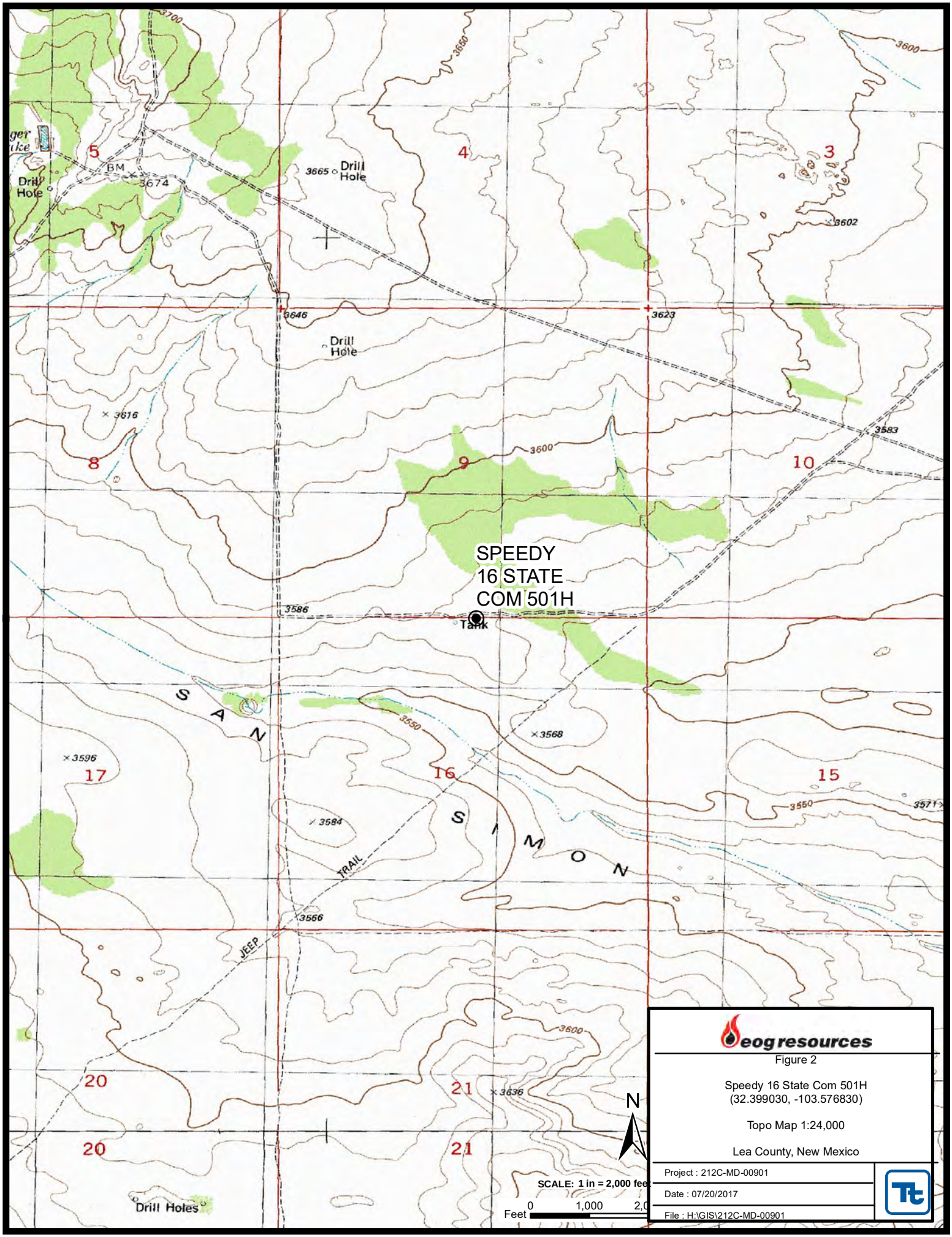
Speedy 16 State Com 501H
(32.399030, -103.576830)

Overview Map

Lea County, New Mexico

Project : 212C-MD-00901	
Date : 07/20/2017	
File : H:\GIS\212C-MD-00901	

Mapped By: Isabel Marmolejo



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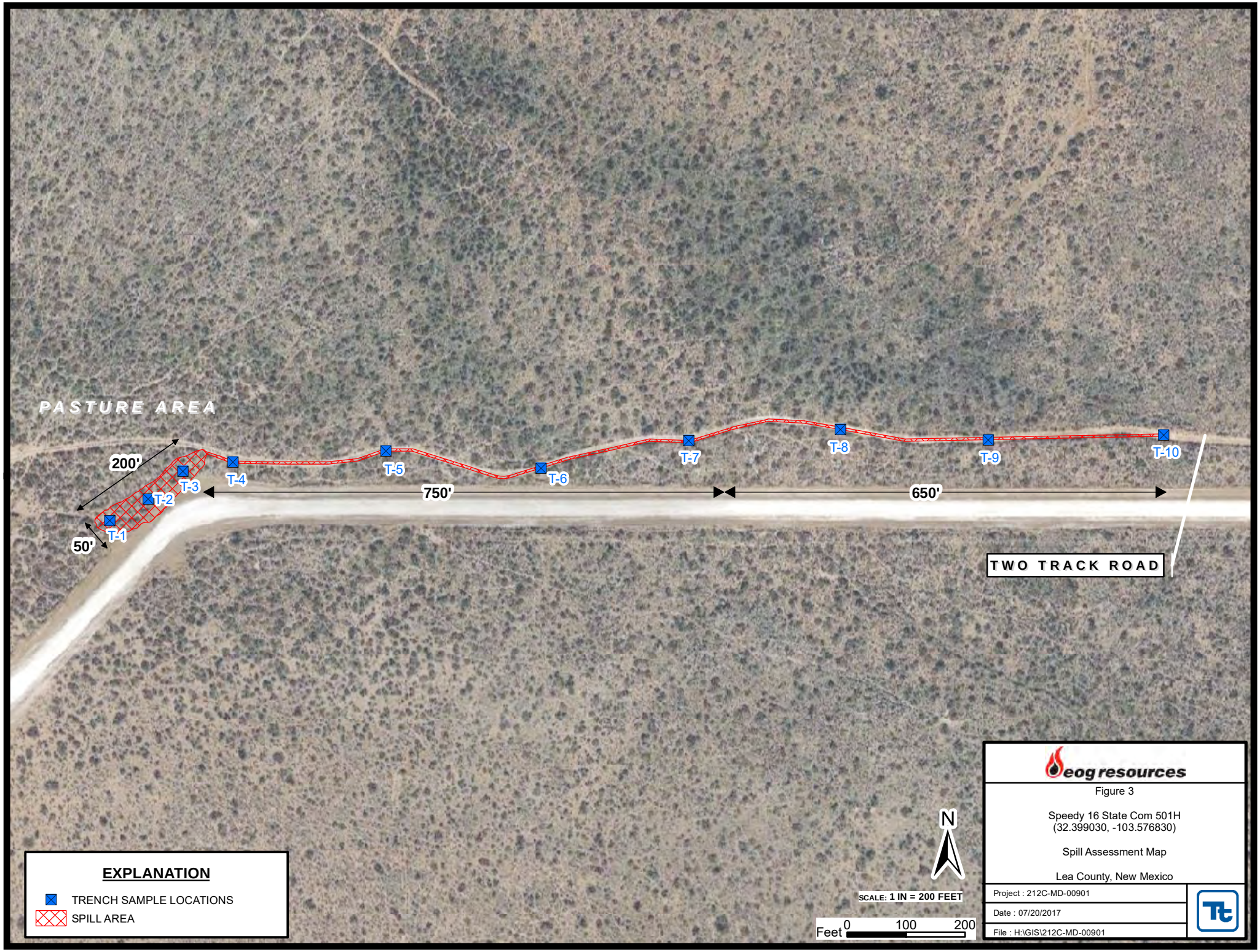
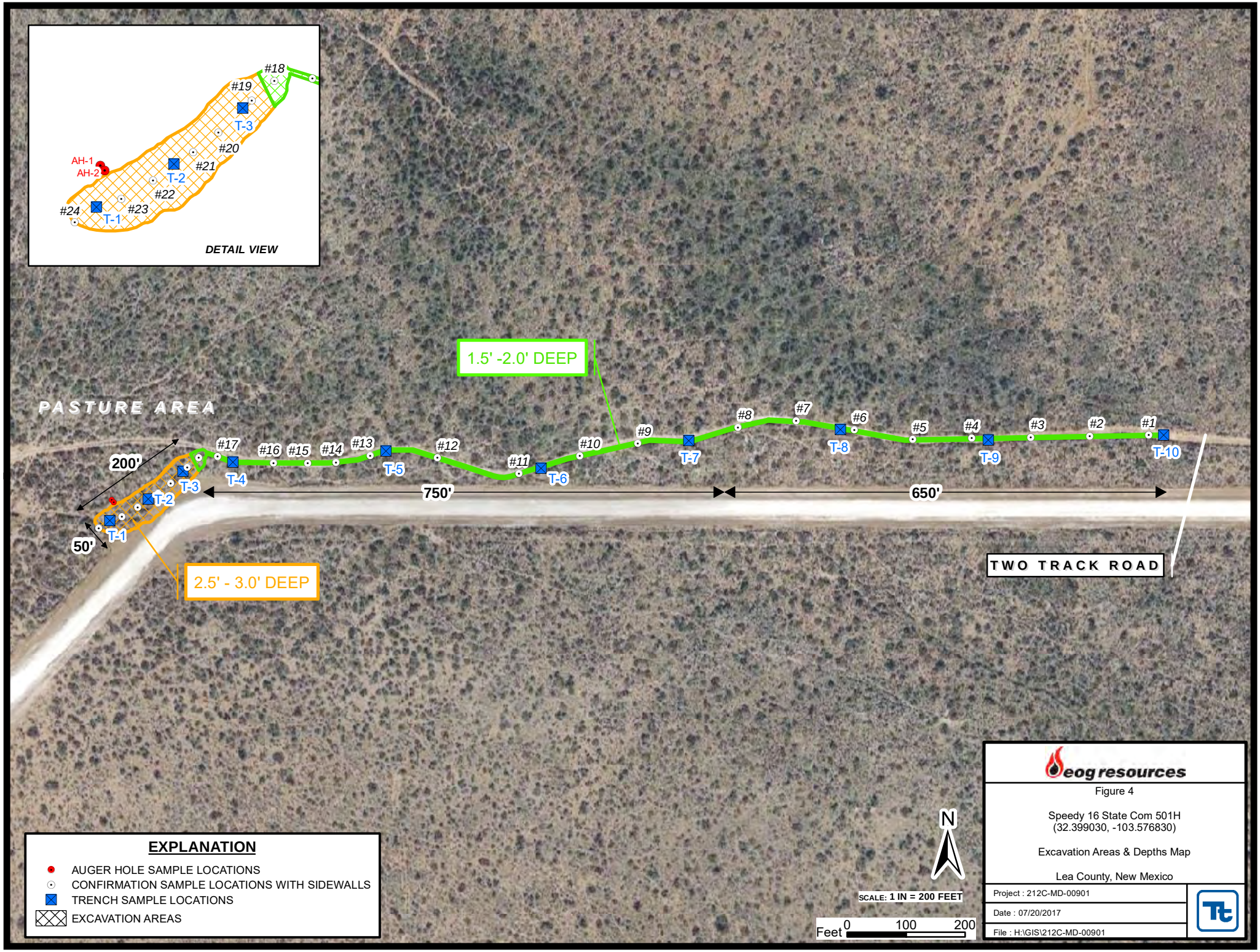

PASTURE AREA
200'
50'
T-1
T-2
T-3
T-4
T-5
T-6
T-7
T-8
T-9
T-10
750'
650'
TWO TRACK ROAD
EXPLANATION
TRENCH SAMPLE LOCATIONS
SPILL AREA
N
SCALE: 1 IN = 200 FEET
Feet 0 100 200
eog resources
Figure 3
Speedy 16 State Com 501H
(32.399030, -103.576830)
Spill Assessment Map
Lea County, New Mexico
Project : 212C-MD-00901
Date : 07/20/2017
File : H:\GIS\212C-MD-00901
Mapped By: Isabel Marmolejo



Mapped By: Isabel Marmolejo

Tables

Table 1
EOG Resources
Speedy 16 State Commingle 501H
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Pasture Area															
Trench #1	7/13/2017	0-1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	1,960
	"	1	-		X	<14.9	<14.9	<14.9	<14.9	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	6,550
	"	2	-	X		-	-	-	-	-	-	-	-	-	69.0
	"	4	-	X		-	-	-	-	-	-	-	-	-	5.48
	"	7	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	57.2
Trench #2	7/13/2017	0-1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	2,170
	"	1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	1,030
	"	2	-	X		-	-	-	-	-	-	-	-	-	54.9
	"	4	-	X		-	-	-	-	-	-	-	-	-	36.6
	"	7	-	X		<15.0	<15.0	<15.0	<15.0	<0.00196	<0.00196	<0.00196	<0.00196	<0.00196	30.7
Trench #3	7/13/2017	0-1	-		X	<15.0	18.5	<15.0	18.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	7,880
	"	1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	8,730
	"	2	-		X	-	-	-	-	-	-	-	-	-	6,760
	"	4	-	X		-	-	-	-	-	-	-	-	-	180
	"	7	-	X		-	-	-	-	-	-	-	-	-	66.5
	"	9	-	X		<15.0	<15.0	<15.0	<15.0	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	**822**
														Lab Re-Run	**748**
Two Track Road															
Trench #4	7/13/2017	0-1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	2,550
	"	4	-	X		-	-	-	-	-	-	-	-	-	25.1
	"	7	-	X		<15.0	<15.0	<15.0	<15.0	<0.00196	<0.00196	<0.00196	<0.00196	<0.00196	20.7
Trench #5	7/13/2017	0-1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	3,350
	"	2	-	X		-	-	-	-	-	-	-	-	-	24.9
	"	4	-	X		-	-	-	-	-	-	-	-	-	81.3
	"	7	-	X		<14.9	<14.9	<14.9	<14.9	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	122

Table 1
EOG Resources
Speedy 16 State Commingle 501H
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Trench #6	7/13/2017	0-1	-	X		<14.9	<14.9	<14.9	<14.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	395
	"	2	-	X		-	-	-	-	-	-	-	-	-	8.44
	"	4	-	X		-	-	-	-	-	-	-	-	-	<49.6
	"	7	-	X		<15.0	<15.0	<15.0	<15.0	<0.00196	<0.00196	<0.00196	<0.00196	<0.00196	33.0
Trench #7	7/13/2017	0-1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	0.0185	<0.00198	0.0185	3,230
	"	2	-	X		-	-	-	-	-	-	-	-	-	30.7
	"	4	-	X		-	-	-	-	-	-	-	-	-	40.7
	"	7	-	X		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	87.1
Trench #8	7/13/2017	0-1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	6,300
	"	2	-	X		-	-	-	-	-	-	-	-	-	8.12
	"	4	-	X		-	-	-	-	-	-	-	-	-	25.2
	"	7	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	110
Trench #9	7/13/2017	0-1	-		X	<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	6,170
	"	2	-	X		-	-	-	-	-	-	-	-	-	508
	"	4	-	X		-	-	-	-	-	-	-	-	-	32.7
	"	7	-	X		<14.9	<14.9	<14.9	<14.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	55.8
Trench #10	7/13/2017	0-1	-	X		<15.0	<15.0	<15.0	<15.0	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	5.40
	"	2	-	X		-	-	-	-	-	-	-	-	-	7.73
	"	4	-	X		-	-	-	-	-	-	-	-	-	<4.99
	"	7	-	X		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	5.22

(-) Not Analyzed

(BEB) Below Excavation Bottom

Areas Excavated and Removed

Table 2
EOG Resources
Speedy 16 State Commingle 501H
Confirmation Sampling
Lea County, New Mexico

Sample ID	Sample Date	Excavation Depth (ft)	BEB Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Two Track Road - Confirmation Samples						
Bottom #1	8/8/2017	1.5-2	0-0.5	X		24.9
South Sidewall #1	"	-	-	X		37.2
North Sidewall #1	"	-	-	X		23.1
Bottom #2	8/8/2017	1.5-2	0-0.5	X		22.8
South Sidewall #2	"	-	-	X		38.9
North Sidewall #2	"	-	-	X		23.7
Bottom #3	8/8/2017	1.5-2	0-0.5	X		23.3
South Sidewall #3	"	-	-	X		26.2
North Sidewall #3	"	-	-	X		26.2
Bottom #4	8/8/2017	1.5-2	0-0.5	X		34.3
South Sidewall #4	"	-	-	X		31.4
North Sidewall #4	"	-	-	X		43.7
Bottom #5	8/8/2017	1.5-2	0-0.5	X		54.2
South Sidewall #5	"	-	-	X		29.1
North Sidewall #5	"	-	-	X		22.5
Bottom #6	8/8/2017	1.5-2	0-0.5	X		65.8
South Sidewall #6	"	-	-	X		45.7
North Sidewall #6	"	-	-	X		36.0
Bottom #7	8/8/2017	1.5-2	0-0.5	X		152
South Sidewall #7	"	-	-	X		47.4
North Sidewall #7	"	-	-	X		42.4
Bottom #8	8/8/2017	1.5-2	0-0.5	X		139
South Sidewall #8	"	-	-	X		245
North Sidewall #8	"	-	-	X		47.4

Table 2
EOG Resources
Speedy 16 State Commingle 501H
Confirmation Sampling
Lea County, New Mexico

Sample ID	Sample Date	Excavation Depth (ft)	BEB Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Bottom #9	8/10/2017	1.5-2	0-0.5	X		188
South Sidewall #9	"	-	-	X		47.7
North Sidewall #9	"	-	-	X		237
Bottom #10	8/10/2017	1.5-2	0-0.5	X		83.0
South Sidewall #10	"	-	-	X		55.7
North Sidewall #10	"	-	-	X		31.8
Bottom #11	8/10/2017	1.5-2	0-0.5	X		57.0
South Sidewall #11	"	-	-	X		120
North Sidewall #11	"	-	-	X		281
Bottom #12	8/10/2017	1.5-2	0-0.5	X		65.9
South Sidewall #12	"	-	-	X		119
North Sidewall #12	"	-	-	X		37.0
Bottom #13	8/11/2017	1.5-2	0-0.5	X		80.6
South Sidewall #13	"	-	-	X		22.6
North Sidewall #13	"	-	-	X		76.9
Bottom #14	8/11/2017	1.5-2	0-0.5	X		129
South Sidewall #14	"	-	-	X		<4.95
North Sidewall #14	"	-	-	X		148
Bottom #15	8/11/2017	1.5-2	0-0.5	X		105
South Sidewall #15	"	-	-	X		<4.95
North Sidewall #15	"	-	-	X		<4.90

Table 2
EOG Resources
Speedy 16 State Commingle 501H
Confirmation Sampling
Lea County, New Mexico

Sample ID	Sample Date	Excavation Depth (ft)	BEB Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Bottom #16	8/11/2017	1.5-2	0-0.5	X		61.1
South Sidewall #16	"	-	-	X		14.5
North Sidewall #16	"	-	-	X		34.7
Bottom #17	8/11/2017	1.5-2	0-0.5	X		102
South Sidewall #17	"	-	-	X		6.08
North Sidewall #17	"	-	-	X		<4.96
Bottom #18	8/11/2017	1.5-2	0-0.5	X		<4.93
South Sidewall #18	"	-	-	X		6.10
North Sidewall #18	"	-	-	X		25.9

Table 2
EOG Resources
Speedy 16 State Commingle 501H
Confirmation Sampling
Lea County, New Mexico

Sample ID	Sample Date	Excavation Depth (ft)	BEB Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Pasture Area - Confirmation Samples						
Bottom #19	8/15/2017	2.5-3.0	0-0.5	X		<4.97
East Sidewall #19	"	-	-	X		34.8
West Sidewall #19	"	-	-	X		116
Bottom #20	8/15/2017	2.5-3.0	0-0.5	X		35.7
East Sidewall #20	"	-	-	X		85.9
West Sidewall #20	"	-	-	X		<4.96
Bottom #21	8/15/2017	2.5-3.0	0-0.5	X		81.4
East Sidewall #21	"	-	-	X		150
West Sidewall #21	"	-	-	X		63.4
Bottom #22	8/15/2017	2.5-3.0	0-0.5	X		409
East Sidewall #22	"	-	-	X		79.6
West Sidewall #22	"	-	-	X		70.3
Bottom #23	8/15/2017	2.5-3.0	0-0.5	X		30.7
East Sidewall #23	"	-	-	X		43.3
West Sidewall #23	"	-	-	X		141
South Sidewall #24	8/15/2017					418
AH-1 Step Out	8/15/2017	0-1	-	X		127
AH-2 Step Out	"	0-1	-	X		69.7

(-) Not Analyzed

(BEB) Below Excavation Bottom

Photos

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View North- Area T-1,T-2 and T-3

View South, Trench#1

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View North East, Trench #2

View North, Trench #3

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View West, Area of T-4

View South East, Trench #4

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View West, Trench #5

View East, Trench#5

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View West, Trench#6

View West, Trench#6

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View West, Trench#7

View West, Trench#7

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View West, Trench #8

View South West, Trench#8

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View West, Trench #9

View North, Trench#9

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View West, Trench#10

View West, Trench#10

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

TETRA TECH

View West- Excavated Area T-1,T-2 and T-3

View North, Excavated Area Trench#4

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

View East, Excavated Area Trench #5

View East, Excavated Area Trench #6

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

TETRA TECH

View West, Excavated Area Trench #7

View West, Excavated Area Trench #8

EOG Resources
Speedy 16 State Com 501H
Lea County, New Mexico

TETRA TECH

View West, Excavated Area Trench #9

View West, Excavated Area Trench #10

Appendix A

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: EOG Resources	Contact: Jamon Hohensee
Address: 5509 Champions Drive, Midland, TX 79706	Telephone No. 432-556-8074
Facility Name: Speedy 16 State Com 501H	Facility Type: Production Facility

Surface Owner: NM State Lands	Mineral Owner: NM State Lands	API No. 30025435860000

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	16	22S	33E					

Latitude 32.3990 **Longitude** -103.5769 NAD83

NATURE OF RELEASE

Type of Release: PW	Volume of Release: 240bbls	Volume Recovered: 0
Source of Release: Water Truck	Date and Hour of Occurrence: 6/27/17, time unknown	Date and Hour of Discovery: 6/28/17
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.*

RECEIVED
By Olivia Yu at 2:45 pm, Jul 03, 2017

Describe Cause of Problem and Remedial Action Taken.*

Produced water was released from a water hauler truck on the side of the lease road twice resulting in approx 240bbls spilled 0bbls recovered. Rancher discovered release and called EOG.

Describe Area Affected and Cleanup Action Taken.*

Area is ranchland east of the tank battery. No visible surface waters were impacted. 3rd party environmental firm will investigate site and take necessary steps properly remediate the affected area.

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:

Printed Name: Jamon Hohensee

Title: Environmental Representative

E-mail Address: jamon_hohensee@eogresources.com

Date: 6/30/17 Phone: 432-556-8074

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: OY

Approval Date: 7/3/2017 Expiration Date:

Conditions of Approval: see attached directive

Attached ☑

* Attach Additional Sheets If Necessary

1RP-4744 nOY1718453425 pOY1718453685

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 **EOG Resources**	Contact **Jamon Hohensee**
Address **5509 Champions Drive, Midland, Tx 79706**	Telephone No. **(432)556-8074**
Facility Name Speedy 16 State Com 501H	Facility Type **Production Facility**

Surface Owner: NM State Lands	Mineral Owner: NM State Lands	API No. 30025435860000

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N & O	9	22S	33E					Lea

Latitude N 32.3990° **Longitude** W 103.5769° **NAD83**

NATURE OF RELEASE

Type of Release: PW	Volume of Release 240bbls	Volume Recovered 0 bbls
Source of Release: Water Truck	Date and Hour of Occurrence 6/27/17 time unknown	Date and Hour of Discovery 6/28/17
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom? Josh Russo	Date and Hour 3/15/10 4:59 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

APPROVED
By Olivia Yu at 5:59 pm, Oct 02, 2018

Describe Cause of Problem and Remedial Action Taken.*

Produced water was released from a water hauler truck on the side of the lease road twice resulting in approximately 240bbls spilled and 0bbls recovered. Rancher discovered release and called EOG. The soils that impacted were removed; material was transported offsite for proper disposal. The excavated areas were then backfilled with clean material to surface grade.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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:	OIL CONSERVATION DIVISION
Printed Name: Ike Tavarez (Agent for EOG)	Approved by District Supervisor:
Title: Project Manager	Approval Date: 10/2/2018 Expiration Date: xx/xx/xxxx
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval: If applicable, BLM approval. Attached ☐
Date: Phone: (432) 682-4559	

* Attach Additional Sheets If Necessary

1RP-4744

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
EOG- Speedy 16 State Com 501H
Lea County, New Mexico

21 South 32 East

6	5	4	3	2	1
7	8 Artesia	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

21 South 33 East

6	5	4	3	2 79 107	1
7	8	9	10	11 150	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28 179	27	26	25
31	32	33 180	34	35	36

21 South 34 East

6	5	4 95	3	2	1
7	8 120	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28 140	27	26	25
31	32	33	34	35	36

22 South 32 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14 382 350	13
19 (S) 280	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South 33 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16 Site	15	14	13 391
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South 34 East

6	5	4	3	2	1
7	8	9	10	11 30	12 50
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

23 South 32 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 400	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

23 South 33 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

23 South 34 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)

Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

123 Tetra Tech installed temporary wells and field water level

143 NMOCD Groundwater map well location

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	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00592 POD1	CP	ED	3	2	13	22S	33E	638834	3585015*		427		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

Township: 22S **Range:** 33E

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

Appendix C

Analytical Report 557681

for

Tetra Tech- Midland

Project Manager: Ike Tavarez

EOG- Speedy 16 State Com 501H

212C-MD-00901

18-JUL-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

18-JUL-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **557681**
EOG- Speedy 16 State Com 501H
Project Address: Lea County, New Mexico

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 557681. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 557681 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 557681

Tetra Tech- Midland, Midland, TX

EOG- Speedy 16 State Com 501H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench #1 (0-1')	S	07-13-17 00:00		557681-001
Trench #1 (1')	S	07-13-17 00:00		557681-002
Trench #1 (2')	S	07-14-17 00:00		557681-003
Trench #1 (4')	S	07-14-17 00:00		557681-004
Trench #1 (7')	S	07-14-17 00:00		557681-005
Trench #2 (0-1')	S	07-13-17 00:00		557681-006
Trench #2 (1')	S	07-13-17 00:00		557681-007
Trench #2 (2')	S	07-13-17 00:00		557681-008
Trench #2 (4')	S	07-13-17 00:00		557681-009
Trench #2 (7')	S	07-14-17 00:00		557681-010
Trench #3 (0-1')	S	07-13-17 00:00		557681-011
Trench #3 (1')	S	07-13-17 00:00		557681-012
Trench #3 (2')	S	07-13-17 00:00		557681-013
Trench #3 (4')	S	07-13-17 00:00		557681-014
Trench #3 (7')	S	07-13-17 00:00		557681-015
Trench #3 (9')	S	07-13-17 00:00		557681-016
Trench #4 (0-1')	S	07-13-17 00:00		557681-017
Trench #4 (2')	S	07-13-17 00:00		557681-018
Trench #4 (4')	S	07-13-17 00:00		557681-019
Trench #4 (7')	S	07-13-17 00:00		557681-020
Trench #5 (0-1')	S	07-13-17 00:00		557681-021
Trench #5 (2')	S	07-13-17 00:00		557681-022
Trench #5 (4')	S	07-13-17 00:00		557681-023
Trench #5 (7')	S	07-13-17 00:00		557681-024
Trench #6 (0-1)	S	07-13-17 00:00		557681-025
Trench #6 (2')	S	07-13-17 00:00		557681-026
Trench #6 (4')	S	07-13-17 00:00		557681-027
Trench #6 (7')	S	07-13-17 00:00		557681-028
Trench #7 (0-1')	S	07-14-17 00:00		557681-029
Trench #7 (2')	S	07-14-17 00:00		557681-030
Trench #7 (4')	S	07-14-17 00:00		557681-031
Trench #7 (7')	S	07-14-17 00:00		557681-032
Trench #8 (0-1')	S	07-14-17 00:00		557681-033
Trench #8 (2')	S	07-14-17 00:00		557681-034
Trench #8 (4')	S	07-14-17 00:00		557681-035
Trench #8 (7')	S	07-14-17 00:00		557681-036
Trench #9 (0-1')	S	07-14-17 00:00		557681-037
Trench #9 (2')	S	07-14-17 00:00		557681-038
Trench #9 (4')	S	07-14-17 00:00		557681-039
Trench #9 (7')	S	07-14-17 00:00		557681-040
Trench #10 (0-1')	S	07-14-17 00:00		557681-041
Trench #10 (2')	S	07-14-17 00:00		557681-042
Trench #10 (4')	S	07-14-17 00:00		557681-043

Trench #10 (7')	S	07-14-17 00:00	557681-044

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3022485 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Outlier/s are due to possible matrix interference.

Lab Sample ID 557681-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Benzene Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.
Samples in the analytical batch are: 557681-001, -002, -005, -006, -007, -010, -011, -012, -016, -017, -020, -021, -024, -025, -028, -029, -032, -033, -036, -037

Batch: LBA-3022488 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	557681-001		557681-002		557681-003		557681-004		557681-005		557681-006	
	Field Id:	Trench #1 (0-1')		Trench #1 (1')		Trench #1 (2')		Trench #1 (4')		Trench #1 (7')		Trench #2 (0-1')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-13-17 00:00		Jul-13-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-13-17 00:00	
BTEX by EPA 8021B	***Extracted:***	Jul-17-17 12:00		Jul-17-17 12:00						Jul-17-17 12:00		Jul-17-17 12:00	
	Analyzed:	Jul-17-17 14:02		Jul-17-17 14:18						Jul-17-17 14:34		Jul-17-17 14:51	
	Units/RL:	mg/kg	RL	mg/kg	RL					mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00197	0.00197					<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00200	0.00200	<0.00197	0.00197					<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00200	0.00200	<0.00197	0.00197					<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00399	0.00399	<0.00394	0.00394					<0.00399	0.00399	<0.00397	0.00397
o-Xylene		<0.00200	0.00200	<0.00197	0.00197					<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.00200	0.00200	<0.00197	0.00197					<0.00200	0.00200	<0.00198	0.00198
Total BTEX		<0.00200	0.00200	<0.00197	0.00197					<0.00200	0.00200	<0.00198	0.00198
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 12:30		Jul-17-17 12:30		Jul-17-17 12:30		Jul-17-17 12:30		Jul-17-17 12:30		Jul-17-17 12:30	
	Analyzed:	Jul-17-17 16:47		Jul-17-17 16:54		Jul-17-17 17:02		Jul-17-17 17:10		Jul-17-17 17:17		Jul-17-17 17:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1960	49.9	6550	49.8	69.0	4.97	5.48	4.97	57.2	4.99	2170	25.0
TPH By SW8015 Mod	***Extracted:***	Jul-17-17 15:30		Jul-17-17 15:30						Jul-17-17 15:30		Jul-17-17 15:30	
	Analyzed:	Jul-17-17 19:12		Jul-17-17 20:35						Jul-17-17 21:02		Jul-17-17 21:29	
	Units/RL:	mg/kg	RL	mg/kg	RL					mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9					<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9					<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<14.9	14.9					<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9					<15.0	15.0	<15.0	15.0

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	557681-007		557681-008		557681-009		557681-010		557681-011		557681-012	
	Field Id:	Trench #2 (1')		Trench #2 (2')		Trench #2 (4')		Trench #2 (7')		Trench #3 (0-1')		Trench #3 (1')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-14-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00	
BTEX by EPA 8021B	***Extracted:***	Jul-17-17 12:00						Jul-17-17 12:00		Jul-17-17 12:00		Jul-17-17 12:00	
	Analyzed:	Jul-17-17 15:07						Jul-17-17 15:23		Jul-17-17 15:40		Jul-17-17 15:56	
	Units/RL:	mg/kg	RL					mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198					<0.00196	0.00196	<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00198	0.00198					<0.00196	0.00196	<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00198	0.00198					<0.00196	0.00196	<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00395	0.00395					<0.00393	0.00393	<0.00399	0.00399	<0.00396	0.00396
o-Xylene		<0.00198	0.00198					<0.00196	0.00196	<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.00198	0.00198					<0.00196	0.00196	<0.00200	0.00200	<0.00198	0.00198
Total BTEX		<0.00198	0.00198					<0.00196	0.00196	<0.00200	0.00200	<0.00198	0.00198
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 12:30		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00	
	Analyzed:	Jul-17-17 17:33		Jul-17-17 18:36		Jul-17-17 18:59		Jul-17-17 19:06		Jul-17-17 19:28		Jul-17-17 19:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1030	4.97	54.9	5.00	36.6	4.99	30.7	4.99	7880	50.0	8730	49.8
TPH By SW8015 Mod	***Extracted:***	Jul-17-17 15:30						Jul-17-17 15:30		Jul-17-17 15:30		Jul-17-17 15:30	
	Analyzed:	Jul-17-17 21:56						Jul-17-17 22:22		Jul-17-17 22:48		Jul-18-17 00:07	
	Units/RL:	mg/kg	RL					mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0					<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0					<15.0	15.0	18.5	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0					<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0					<15.0	15.0	18.5	15.0	<15.0	15.0

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	557681-013		557681-014		557681-015		557681-016		557681-017		557681-018	
	Field Id:	Trench #3 (2')		Trench #3 (4')		Trench #3 (7')		Trench #3 (9')		Trench #4 (0-1')		Trench #4 (2')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00	
BTEX by EPA 8021B	***Extracted:***							Jul-17-17 12:00		Jul-17-17 12:00			
	Analyzed:							Jul-17-17 16:39		Jul-17-17 17:19			
	Units/RL:							mg/kg	RL	mg/kg	RL		
Benzene								<0.00197	0.00197	<0.00198	0.00198		
Toluene								<0.00197	0.00197	<0.00198	0.00198		
Ethylbenzene								<0.00197	0.00197	<0.00198	0.00198		
m,p-Xylenes								<0.00394	0.00394	<0.00395	0.00395		
o-Xylene								<0.00197	0.00197	<0.00198	0.00198		
Total Xylenes								<0.00197	0.00197	<0.00198	0.00198		
Total BTEX								<0.00197	0.00197	<0.00198	0.00198		
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00	
	Analyzed:	Jul-17-17 19:59		Jul-17-17 20:06		Jul-17-17 20:14		Jul-17-17 20:22		Jul-17-17 20:29		Jul-17-17 20:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		6760	49.9	180	24.6	66.5	4.93	822	4.97	2550	24.8	135	4.92
TPH By SW8015 Mod	***Extracted:***							Jul-17-17 15:30		Jul-17-17 15:30			
	Analyzed:							Jul-18-17 00:33		Jul-18-17 00:59			
	Units/RL:							mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)								<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)								<15.0	15.0	<15.0	15.0		
Oil Range Hydrocarbons (ORO)								<15.0	15.0	<15.0	15.0		
Total TPH								<15.0	15.0	<15.0	15.0		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	557681-019		557681-020		557681-021		557681-022		557681-023		557681-024	
	Field Id:	Trench #4 (4')		Trench #4 (7')		Trench #5 (0-1')		Trench #5 (2')		Trench #5 (4')		Trench #5 (7')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00	
BTEX by EPA 8021B	***Extracted:***			Jul-17-17 12:00		Jul-17-17 12:00						Jul-17-17 12:00	
	Analyzed:			Jul-17-17 18:08		Jul-17-17 18:24						Jul-17-17 18:40	
	Units/RL:			mg/kg	RL	mg/kg	RL					mg/kg	RL
Benzene				<0.00196	0.00196	<0.00198	0.00198					<0.00197	0.00197
Toluene				<0.00196	0.00196	<0.00198	0.00198					<0.00197	0.00197
Ethylbenzene				<0.00196	0.00196	<0.00198	0.00198					<0.00197	0.00197
m,p-Xylenes				<0.00393	0.00393	<0.00396	0.00396					<0.00394	0.00394
o-Xylene				<0.00196	0.00196	<0.00198	0.00198					<0.00197	0.00197
Total Xylenes				<0.00196	0.00196	<0.00198	0.00198					<0.00197	0.00197
Total BTEX				<0.00196	0.00196	<0.00198	0.00198					<0.00197	0.00197
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00	
	Analyzed:	Jul-17-17 21:00		Jul-17-17 21:23		Jul-17-17 21:31		Jul-17-17 21:39		Jul-17-17 21:46		Jul-17-17 21:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		25.1	5.00	20.7	5.00	3350	25.0	24.9	5.00	81.3	5.00	122	4.99
TPH By SW8015 Mod	***Extracted:***			Jul-17-17 15:30		Jul-17-17 15:30						Jul-17-17 15:30	
	Analyzed:			Jul-18-17 01:26		Jul-18-17 01:52						Jul-18-17 02:18	
	Units/RL:			mg/kg	RL	mg/kg	RL					mg/kg	RL
Gasoline Range Hydrocarbons (GRO)				<15.0	15.0	<15.0	15.0					<14.9	14.9
Diesel Range Organics (DRO)				<15.0	15.0	<15.0	15.0					<14.9	14.9
Oil Range Hydrocarbons (ORO)				<15.0	15.0	<15.0	15.0					<14.9	14.9
Total TPH				<15.0	15.0	<15.0	15.0					<14.9	14.9

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	557681-025		557681-026		557681-027		557681-028		557681-029		557681-030	
	Field Id:	Trench #6 (0-1)		Trench #6 (2')		Trench #6 (4')		Trench #6 (7')		Trench #7 (0-1')		Trench #7 (2')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-13-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00	
BTEX by EPA 8021B	***Extracted:***	Jul-17-17 12:00						Jul-17-17 12:00		Jul-17-17 12:00			
	Analyzed:	Jul-17-17 18:56						Jul-17-17 19:12		Jul-17-17 19:29			
	Units/RL:	mg/kg	RL					mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200					<0.00196	0.00196	<0.00198	0.00198		
Toluene		<0.00200	0.00200					<0.00196	0.00196	<0.00198	0.00198		
Ethylbenzene		<0.00200	0.00200					<0.00196	0.00196	0.0185	0.00198		
m,p-Xylenes		<0.00399	0.00399					<0.00393	0.00393	<0.00395	0.00395		
o-Xylene		<0.00200	0.00200					<0.00196	0.00196	<0.00198	0.00198		
Total Xylenes		<0.00200	0.00200					<0.00196	0.00196	<0.00198	0.00198		
Total BTEX		<0.00200	0.00200					<0.00196	0.00196	0.0185	0.00198		
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 16:00		Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00	
	Analyzed:	Jul-17-17 22:02		Jul-17-17 22:09		Jul-17-17 22:17		Jul-17-17 23:03		Jul-17-17 23:26		Jul-17-17 23:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		395	4.98	8.44	4.95	<49.6	49.6	33.0	4.95	3230	25.0	30.7	4.96
TPH By SW8015 Mod	***Extracted:***	Jul-17-17 15:30						Jul-17-17 15:30		Jul-17-17 15:30			
	Analyzed:	Jul-18-17 02:44						Jul-18-17 03:11		Jul-18-17 03:37			
	Units/RL:	mg/kg	RL					mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9					<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)		<14.9	14.9					<15.0	15.0	<15.0	15.0		
Oil Range Hydrocarbons (ORO)		<14.9	14.9					<15.0	15.0	<15.0	15.0		
Total TPH		<14.9	14.9					<15.0	15.0	<15.0	15.0		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	557681-031		557681-032		557681-033		557681-034		557681-035		557681-036	
	Field Id:	Trench #7 (4')		Trench #7 (7')		Trench #8 (0-1')		Trench #8 (2')		Trench #8 (4')		Trench #8 (7')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00	
BTEX by EPA 8021B	***Extracted:***			Jul-17-17 12:00		Jul-17-17 12:00						Jul-17-17 12:00	
	Analyzed:			Jul-17-17 19:46		Jul-17-17 20:02						Jul-17-17 20:18	
	Units/RL:			mg/kg	RL	mg/kg	RL					mg/kg	RL
Benzene				<0.00198	0.00198	<0.00197	0.00197					<0.00200	0.00200
Toluene				<0.00198	0.00198	<0.00197	0.00197					<0.00200	0.00200
Ethylbenzene				<0.00198	0.00198	<0.00197	0.00197					<0.00200	0.00200
m,p-Xylenes				<0.00397	0.00397	<0.00394	0.00394					<0.00399	0.00399
o-Xylene				<0.00198	0.00198	<0.00197	0.00197					<0.00200	0.00200
Total Xylenes				<0.00198	0.00198	<0.00197	0.00197					<0.00200	0.00200
Total BTEX				<0.00198	0.00198	<0.00197	0.00197					<0.00200	0.00200
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00	
	Analyzed:	Jul-17-17 23:41		Jul-18-17 00:04		Jul-18-17 00:12		Jul-18-17 00:20		Jul-18-17 00:27		Jul-18-17 00:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		40.7	4.97	87.1	4.99	6300	49.3	8.12	4.97	25.2	4.98	110	4.99
TPH By SW8015 Mod	***Extracted:***			Jul-17-17 15:30		Jul-17-17 15:30						Jul-17-17 15:30	
	Analyzed:			Jul-18-17 04:03		Jul-18-17 02:33						Jul-18-17 03:36	
	Units/RL:			mg/kg	RL	mg/kg	RL					mg/kg	RL
Gasoline Range Hydrocarbons (GRO)				<15.0	15.0	<15.0	15.0					<15.0	15.0
Diesel Range Organics (DRO)				<15.0	15.0	<15.0	15.0					<15.0	15.0
Oil Range Hydrocarbons (ORO)				<15.0	15.0	<15.0	15.0					<15.0	15.0
Total TPH				<15.0	15.0	<15.0	15.0					<15.0	15.0

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	557681-037		557681-038		557681-039		557681-040		557681-041		557681-042	
	Field Id:	Trench #9 (0-1')		Trench #9 (2')		Trench #9 (4')		Trench #9 (7')		Trench #10 (0-1')		Trench #10 (2')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00		Jul-14-17 00:00	
BTEX by EPA 8021B	***Extracted:***	Jul-17-17 12:00						Jul-17-17 12:00		Jul-17-17 12:00			
	Analyzed:	Jul-17-17 20:34						Jul-17-17 22:43		Jul-17-17 22:59			
	Units/RL:	mg/kg	RL					mg/kg	RL	mg/kg	RL		
Benzene		<0.00198	0.00198					<0.00200	0.00200	<0.00197	0.00197		
Toluene		<0.00198	0.00198					<0.00200	0.00200	<0.00197	0.00197		
Ethylbenzene		<0.00198	0.00198					<0.00200	0.00200	<0.00197	0.00197		
m,p-Xylenes		<0.00397	0.00397					<0.00399	0.00399	<0.00394	0.00394		
o-Xylene		<0.00198	0.00198					<0.00200	0.00200	<0.00197	0.00197		
Total Xylenes		<0.00198	0.00198					<0.00200	0.00200	<0.00197	0.00197		
Total BTEX		<0.00198	0.00198					<0.00200	0.00200	<0.00197	0.00197		
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00		Jul-17-17 17:00	
	Analyzed:	Jul-18-17 00:43		Jul-18-17 00:51		Jul-18-17 01:14		Jul-18-17 01:37		Jul-18-17 01:44		Jul-18-17 01:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		6170	50.0	508	4.97	32.7	4.98	55.8	4.95	5.40	4.97	7.73	4.98
TPH By SW8015 Mod	***Extracted:***	Jul-17-17 15:30						Jul-17-17 15:30		Jul-17-17 15:30			
	Analyzed:	Jul-18-17 03:58						Jul-18-17 04:20		Jul-18-17 04:41			
	Units/RL:	mg/kg	RL					mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0					<14.9	14.9	<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0					<14.9	14.9	<15.0	15.0		
Oil Range Hydrocarbons (ORO)		<15.0	15.0					<14.9	14.9	<15.0	15.0		
Total TPH		<15.0	15.0					<14.9	14.9	<15.0	15.0		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 557681

Tetra Tech- Midland, Midland, TX

Project Name: EOG- Speedy 16 State Com 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Mon Jul-17-17 09:51 am
Report Date: 18-JUL-17
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	557681-043	557681-044				
	Field Id:	Trench #10 (4')	Trench #10 (7')				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	Jul-14-17 00:00	Jul-14-17 00:00				
BTEX by EPA 8021B	***Extracted:***		Jul-17-17 12:00				
	Analyzed:		Jul-17-17 23:15				
	Units/RL:		mg/kg RL				
Benzene			<0.00200 0.00200				
Toluene			<0.00200 0.00200				
Ethylbenzene			<0.00200 0.00200				
m,p-Xylenes			<0.00399 0.00399				
o-Xylene			<0.00200 0.00200				
Total Xylenes			<0.00200 0.00200				
Total BTEX			<0.00200 0.00200				
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-17-17 17:00	Jul-17-17 17:00				
	Analyzed:	Jul-18-17 02:00	Jul-18-17 02:07				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		<4.99 4.99	5.22 4.96				
TPH By SW8015 Mod	***Extracted:***		Jul-17-17 15:30				
	Analyzed:		Jul-18-17 05:02				
	Units/RL:		mg/kg RL				
Gasoline Range Hydrocarbons (GRO)			<15.0 15.0				
Diesel Range Organics (DRO)			<15.0 15.0				
Oil Range Hydrocarbons (ORO)			<15.0 15.0				
Total TPH			<15.0 15.0				

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022485 **Sample:** 557681-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 14:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 3022485 **Sample:** 557681-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 14:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

Lab Batch #: 3022485 **Sample:** 557681-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 14:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 3022485 **Sample:** 557681-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 14:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 3022485 **Sample:** 557681-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 15:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022485 **Sample:** 557681-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 15:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

Lab Batch #: 3022485 **Sample:** 557681-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 15:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 3022485 **Sample:** 557681-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 15:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 3022485 **Sample:** 557681-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 16:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 3022485 **Sample:** 557681-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 17:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022485 **Sample:** 557681-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 18:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 3022485 **Sample:** 557681-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 18:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 3022485 **Sample:** 557681-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 18:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 3022485 **Sample:** 557681-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 18:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 3022504 **Sample:** 557681-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 19:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.8	99.7	92	70-135	
o-Terphenyl	48.9	49.9	98	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022485 **Sample:** 557681-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 19:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 3022485 **Sample:** 557681-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 19:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 3022485 **Sample:** 557681-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 19:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 3022485 **Sample:** 557681-033 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 20:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 3022485 **Sample:** 557681-036 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 20:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022485 **Sample:** 557681-037 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 20:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 3022504 **Sample:** 557681-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 20:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	99.6	99	70-135	
o-Terphenyl	52.7	49.8	106	70-135	

Lab Batch #: 3022504 **Sample:** 557681-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 21:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.2	99.9	99	70-135	
o-Terphenyl	53.6	50.0	107	70-135	

Lab Batch #: 3022504 **Sample:** 557681-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 21:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	100	99	70-135	
o-Terphenyl	51.9	50.0	104	70-135	

Lab Batch #: 3022504 **Sample:** 557681-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 21:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	99.8	98	70-135	
o-Terphenyl	52.0	49.9	104	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022504 **Sample:** 557681-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 22:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.7	100	70-135	
o-Terphenyl	53.8	49.9	108	70-135	

Lab Batch #: 3022488 **Sample:** 557681-040 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 22:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 3022504 **Sample:** 557681-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 22:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.7	112	70-135	
o-Terphenyl	60.2	49.9	121	70-135	

Lab Batch #: 3022488 **Sample:** 557681-041 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 22:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 3022488 **Sample:** 557681-044 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 23:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022504 **Sample:** 557681-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 00:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.9	100	70-135	
o-Terphenyl	53.6	50.0	107	70-135	

Lab Batch #: 3022504 **Sample:** 557681-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 00:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.9	99.9	97	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 3022504 **Sample:** 557681-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 00:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	99.8	96	70-135	
o-Terphenyl	50.8	49.9	102	70-135	

Lab Batch #: 3022504 **Sample:** 557681-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 01:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.6	99.7	97	70-135	
o-Terphenyl	51.5	49.9	103	70-135	

Lab Batch #: 3022504 **Sample:** 557681-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 01:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.4	99.8	95	70-135	
o-Terphenyl	50.2	49.9	101	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022504 **Sample:** 557681-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 02:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.6	105	70-135	
o-Terphenyl	55.9	49.8	112	70-135	

Lab Batch #: 3022505 **Sample:** 557681-033 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 02:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.9	103	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

Lab Batch #: 3022504 **Sample:** 557681-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 02:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.8	99.6	99	70-135	
o-Terphenyl	52.5	49.8	105	70-135	

Lab Batch #: 3022504 **Sample:** 557681-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 03:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.3	99.9	98	70-135	
o-Terphenyl	51.2	50.0	102	70-135	

Lab Batch #: 3022505 **Sample:** 557681-036 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 03:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	51.6	49.9	103	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022504 **Sample:** 557681-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 03:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.9	100	99	70-135	
o-Terphenyl	52.9	50.0	106	70-135	

Lab Batch #: 3022505 **Sample:** 557681-037 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 03:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.8	102	70-135	
o-Terphenyl	51.1	49.9	102	70-135	

Lab Batch #: 3022504 **Sample:** 557681-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 04:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.9	100	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Lab Batch #: 3022505 **Sample:** 557681-040 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 04:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.6	100	70-135	
o-Terphenyl	50.2	49.8	101	70-135	

Lab Batch #: 3022505 **Sample:** 557681-041 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 04:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.9	101	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022505 **Sample:** 557681-044 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 05:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 3022485 **Sample:** 727789-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 13:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 3022504 **Sample:** 727798-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 15:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	64.7	50.0	129	70-135	

Lab Batch #: 3022488 **Sample:** 727793-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 22:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3022505 **Sample:** 727801-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/18/17 01:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	56.3	50.0	113	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022485 **Sample:** 727789-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 12:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 3022504 **Sample:** 727798-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 16:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	61.1	50.0	122	70-135	

Lab Batch #: 3022488 **Sample:** 727793-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 21:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 3022505 **Sample:** 727801-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/18/17 01:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	55.1	50.0	110	70-135	

Lab Batch #: 3022485 **Sample:** 727789-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 12:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022504 **Sample:** 727798-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 16:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	61.7	50.0	123	70-135	

Lab Batch #: 3022488 **Sample:** 727793-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/17/17 21:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 3022505 **Sample:** 727801-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/18/17 02:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	56.7	50.0	113	70-135	

Lab Batch #: 3022485 **Sample:** 557681-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 12:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 3022504 **Sample:** 557681-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 19:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.8	114	70-135	
o-Terphenyl	59.0	49.9	118	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681,

Project ID: 212C-MD-00901

Lab Batch #: 3022488 **Sample:** 557681-040 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 21:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 3022505 **Sample:** 557681-033 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 02:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.9	102	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

Lab Batch #: 3022485 **Sample:** 557681-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 12:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 3022504 **Sample:** 557681-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 20:08

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.8	119	70-135	
o-Terphenyl	62.6	49.9	125	70-135	

Lab Batch #: 3022488 **Sample:** 557681-040 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/17/17 21:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Orders : 557681, **Project ID:** 212C-MD-00901

Lab Batch #: 3022505 **Sample:** 557681-033 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/18/17 03:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	48.2	49.9	97	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Order #: 557681 **Project ID:** 212C-MD-00901

Analyst: JUM **Date Prepared:** 07/17/2017 **Date Analyzed:** 07/17/2017

Lab Batch ID: 3022485 **Sample:** 727789-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00198	0.0992	0.0941	95	0.0988	0.0941	95	0	70-130	35	
Toluene	<0.00198	0.0992	0.0881	89	0.0988	0.0881	89	0	70-130	35	
Ethylbenzene	<0.00198	0.0992	0.0959	97	0.0988	0.0962	97	0	71-129	35	
m,p-Xylenes	<0.00397	0.198	0.167	84	0.198	0.167	84	0	70-135	35	
o-Xylene	<0.00198	0.0992	0.0908	92	0.0988	0.0908	92	0	71-133	35	

Analyst: ALJ **Date Prepared:** 07/17/2017 **Date Analyzed:** 07/17/2017

Lab Batch ID: 3022488 **Sample:** 727793-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00198	0.0988	0.0964	98	0.0990	0.0920	93	5	70-130	35	
Toluene	<0.00198	0.0988	0.0887	90	0.0990	0.0852	86	4	70-130	35	
Ethylbenzene	<0.00198	0.0988	0.0948	96	0.0990	0.0911	92	4	71-129	35	
m,p-Xylenes	<0.00395	0.198	0.165	83	0.198	0.159	80	4	70-135	35	
o-Xylene	<0.00198	0.0988	0.0908	92	0.0990	0.0870	88	4	71-133	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Order #: 557681 **Project ID:** 212C-MD-00901

Analyst: MGO **Date Prepared:** 07/17/2017 **Date Analyzed:** 07/17/2017

Lab Batch ID: 3022477 **Sample:** 727779-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	268	107	250	269	108	0	90-110	20	

Analyst: MGO **Date Prepared:** 07/17/2017 **Date Analyzed:** 07/17/2017

Lab Batch ID: 3022494 **Sample:** 727788-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	271	108	250	272	109	0	90-110	20	

Analyst: MGO **Date Prepared:** 07/17/2017 **Date Analyzed:** 07/17/2017

Lab Batch ID: 3022495 **Sample:** 727794-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	268	107	250	269	108	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Order #: 557681 **Project ID:** 212C-MD-00901

Analyst: ARM **Date Prepared:** 07/17/2017 **Date Analyzed:** 07/17/2017

Lab Batch ID: 3022504 **Sample:** 727798-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	904	90	1000	888	89	2	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	947	95	1000	889	89	6	70-135	35	

Analyst: ARM **Date Prepared:** 07/17/2017 **Date Analyzed:** 07/18/2017

Lab Batch ID: 3022505 **Sample:** 727801-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1030	103	1000	1020	102	1	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	1000	1040	104	3	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Order # : 557681 **Project ID:** 212C-MD-00901

Lab Batch ID: 3022485 **QC- Sample ID:** 557681-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00197	0.0984	0.0800	81	0.0988	0.116	117	37	70-130	35	F
Toluene	<0.00197	0.0984	0.0795	81	0.0988	0.101	102	24	70-130	35	
Ethylbenzene	<0.00197	0.0984	0.0903	92	0.0988	0.106	107	16	71-129	35	
m,p-Xylenes	<0.00394	0.197	0.162	82	0.198	0.184	93	13	70-135	35	
o-Xylene	<0.00197	0.0984	0.0843	86	0.0988	0.106	107	23	71-133	35	

Lab Batch ID: 3022488 **QC- Sample ID:** 557681-040 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00197	0.0984	0.105	107	0.0998	0.0920	92	13	70-130	35	
Toluene	<0.00197	0.0984	0.0938	95	0.0998	0.0843	84	11	70-130	35	
Ethylbenzene	<0.00197	0.0984	0.0953	97	0.0998	0.0820	82	15	71-129	35	
m,p-Xylenes	<0.00394	0.197	0.168	85	0.200	0.208	104	21	70-135	35	
o-Xylene	<0.00197	0.0984	0.0906	92	0.0998	0.0785	79	14	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Order # : 557681 **Project ID:** 212C-MD-00901

Lab Batch ID: 3022477 **QC- Sample ID:** 557682-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.96	248	263	106	248	266	107	1	90-110	20	

Lab Batch ID: 3022477 **QC- Sample ID:** 557682-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	10.7	250	274	105	250	276	106	1	90-110	20	

Lab Batch ID: 3022494 **QC- Sample ID:** 557681-008 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	54.9	250	313	103	250	314	104	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Order # : 557681 **Project ID:** 212C-MD-00901

Lab Batch ID: 3022494 **QC- Sample ID:** 557681-018 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	135	246	388	103	246	389	103	0	90-110	20	

Lab Batch ID: 3022495 **QC- Sample ID:** 557681-028 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	33.0	248	291	104	248	293	105	1	90-110	20	

Lab Batch ID: 3022495 **QC- Sample ID:** 557681-038 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/18/2017 **Date Prepared:** 07/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	508	249	731	90	249	744	95	2	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: EOG- Speedy 16 State Com 501H

Work Order # : 557681 **Project ID:** 212C-MD-00901

Lab Batch ID: 3022504 **QC- Sample ID:** 557681-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/17/2017 **Date Prepared:** 07/17/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	950	95	998	991	99	4	70-135	35	
Diesel Range Organics (DRO)	<15.0	998	962	96	998	1010	101	5	70-135	35	

Lab Batch ID: 3022505 **QC- Sample ID:** 557681-033 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/18/2017 **Date Prepared:** 07/17/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1030	103	997	1010	101	2	70-135	35	
Diesel Range Organics (DRO)	<15.0	999	1060	106	997	1050	105	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

557681

Client Name: EOG	Site Manager: Ike Tavarez
Project Name: Speedy 16 State Com 501H	
Project Location: (county, state) Lea County, New Mexico	Project #: 212C-MD-00901
Invoice to: Tetra Tech	
Receiving Laboratory: Xenco Midland Tx	Sampler Signature:
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2017 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Sulfate	TDS	General Water Chemistry (see attached list)	Anion/Cation Balance					Hold
	Trench #1 (0-1')	7/13/2017			X					X		1	N	X			X												X									
	Trench #1 (1')	7/13/2017			X					X		1	N	X			X												X									
	Trench #1 (2')	7/14/2017			X					X		1	N																X									
	Trench #1 (4')	7/14/2017			X					X		1	N																X									
	Trench #1 (7')	7/14/2017			X					X		1	N	X			X												X									
	Trench #2 (0-1')	7/13/2017			X					x		1	N	X			X												X									
	Trench #2 (1')	7/13/2017			X					X		1	N	X			X												X									
	Trench #2 (2')	7/13/2017			X					X		1	N																X									
	Trench #2 (4')	7/13/2017			X					X		1	N																X									
	Trench #2 (7')	7/14/2017			X					X		1	N	X			X												X									

Relinquished by: Mike Carmena	Date: 7-17-17	Time: 9:51	Received by: Maurecha	Date: 7-17-17	Time: 9:51
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature

REMARKS:
STANDARD

[X] RUSH: Same Day (24 hr) 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

RRD FEDEX UPS Tracking #:

ORIGINAL COPY

Temp: 5.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.7

Final 1.000

Page 36 of 41

Analysis Request of Chain of Custody Record

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557681

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Project Name: Speedy 16 State Com 501H

Project Location: (county, state) Lea County, New Mexico

Project #: 212C-MD-00901

Invoice to: Tetra Tech

Receiving Laboratory: Xenco Midland Tx

Sampler Signature:

Comments:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2017 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance					Hold
	Trench #3 (0-1')	7/13/2017			X					X		1	N	X		X												X								
	Trench #3 (1')	7/13/2017			X					X		1	N	X		X												X								
	Trench #3 (2')	7/13/2017			X					X		1	N															X								
	Trench #3 (4')	7/13/2017			X					X		1	N															X								
	Trench #3 (7')	7/13/2017			X					X		1	N															X								
	Trench #3 (9')	7/13/2017			X					x		1	N	X		X												X								
	Trench #4 (0-1')	7/13/2017			X					X		1	N	X		X												X								
	Trench #4 (2')	7/13/2017			X					X		1	N															X								
	Trench #4 (4')	7/13/2017			X					X		1	N															X								
	Trench #4 (7')	7/13/2017			X					X		1	N	X		X												X								

Relinquished by: Date: Time:
Mike Carmona 7-17-17 9:51

Received by: Date: Time:
Shaunechish 7-17-17 9:51

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature

REMARKS:
STANDARD

[X] RUSH: (24 hr) 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

ERED FEDEX UPS Tracking #:

ORIGINAL COPY

Temp: 5.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.7

Final 1.000

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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401 Midland,Texas 79705
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Fax (432) 682-3946

557681

Client Name: EOG

Site Manager: Ike Tavarez

Project Name: Speedy 16 State Com 501H

Project Location: (county, state) Lea County, New Mexico

Project #: 212C-MD-00901

Invoice to: Tetra Tech

Receiving Laboratory: Xenco Midland Tx

Sampler Signature:

Comments:

ANALYSIS REQUEST
(Circle or Specify Method No.)

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	Trench #5 (0-1')	7/13/2017			X					X		1	N	X			X												X									
	Trench #5 (2')	7/13/2017			X					X		1	N																X									
	Trench #5 (4')	7/13/2017			X					X		1	N																X									
	Trench #5 (7')	7/13/2017			X					X		1	N	X		X													X									
	Trench #6 (0-1)	7/13/2017			X					X		1	N	X		X													X									
	Trench #6 (2')	7/13/2017			X					x		1	N																X									
	Trench #6 (4')	7/13/2017			X					X		1	N																X									
	Trench #6 (7')	7/13/2017			X					X		1	N	X		X													X									
	Trench #7 (0-1')	7/14/2017			X					X		1	N	X		X													X									
	Trench #7 (2')	7/14/2017			X					X		1	N																X									

Relinquished by: Mike Cannon Date: 7-17-17 Time: 9:51

Received by: Maurechuth Date: 7-17-17 Time: 9:51

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature

REMARKS:

STANDARD

X RUSH: Same Day (24 hr) 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

LIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

Temp: 5.9 IR ID:R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 5.7

Final 1.000

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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557681

Client Name: EOG	Site Manager: Ike Tavarez
Project Name: Speedy 16 State Com 501H	
Project Location: (county, state) Lea County, New Mexico	Project #: 212C-MD-00901
Invoice to: Tetra Tech	
Receiving Laboratory: Xenco Midland Tx	Sampler Signature:
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2017 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
	Trench #7 (4')	7/14/2017			X					X		1	N																X							
	Trench #7(7')	7/14/2017			X					X		1	N	X		X													X							
	Trench #8 (0-1')	7/14/2017			X					X		1	N	X		X													X							
	Trench #8 (2')	7/14/2017			X					X		1	N																X							
	Trench #8 (4')	7/14/2017			X					X		1	N																X							
	Trench #8 (7')	7/14/2017			X					x		1	N	X		X													X							
	Trench #9 (0-1')	7/14/2017			X					X		1	N	X		X													X							
	Trench #9 (2')	7/14/2017			X					X		1	N																X							
	Trench #9 (4')	7/14/2017			X					X		1	N																X							
	Trench #9 (7')	7/14/2017			X					X		1	N	X		X													X							

Relinquished by: mike Cannon	Date: 7-19-17	Time: 9:51	Received by: Malinda Smith
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

LAB USE ONLY

Sample Temperature

REMARKS:
STANDARD

[X] RUSH: Same Day (24 hr) 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

IVERED FEDEX UPS Tracking #:

ORIGINAL COPY

Temp: 5.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.7

Final 1.000

Page 39 of 41

Analysis Request of Chain of Custody Record

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557681

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Project Location: (county, state) Lea County, New Mexico	Project #: 212C-MD-00901
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Comments:	

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(Circle or Specify Method No.)

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	Trench #10 (0-1')	7/14/2017			X					X		1	N	X			X												X									
	Trench #10 (2')	7/14/2017			X					X		1	N																X									
	Trench #10 (4')	7/14/2017			X					X		1	N																X									
	Trench #10 (7')	7/14/2017			X					X		1	N	X			X												X									

Relinquished by: Mike Carmona Date: 7-17-17 Time: 9:51
Received by: Maurel Mata Date: 7-17-17 Time: 9:51
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY
Sample Temperature

REMARKS:
STANDARD
[X] RUSH: Same Day (24 hr) 48 hr 72 hr
[ ] Rush Charges Authorized
[ ] Special Report Limits or TRRP Report

VERED FEDEX UPS Tracking #:

ORIGINAL COPY

Temp: 5.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.7

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 07/17/2017 09:51:00 AM

Work Order #: 557681

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.7
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: ss

PH Device/Lot#:

Checklist completed by: Shawnee Smith (Shawnee Smith) Date: 07/17/2017

Checklist reviewed by: Kelsey Brooks (Kelsey Brooks) Date: 07/17/2017

Analytical Report 560117

for

Tetra Tech- Midland

Project Manager: Ike Tavarez

D&T Speedy 16 State Commingle 501H

212C-MD-00901

17-AUG-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

17-AUG-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **560117**
D&T Speedy 16 State Commingle 501H
Project Address: Lea County NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 560117. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 560117 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 560117

Tetra Tech- Midland, Midland, TX

D&T Speedy 16 State Commingle 501H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottomhole #1	S	08-08-17 00:00		560117-001
South Sidewall #1	S	08-08-17 00:00		560117-002
North Sidewall #1	S	08-08-17 00:00		560117-003
Bottomhole #2	S	08-08-17 00:00		560117-004
South sidewall #2	S	08-08-17 00:00		560117-005
North Sidewall #2	S	08-08-17 00:00		560117-006
Bottomhole #3	S	08-08-17 00:00		560117-007
South sidewall #3	S	08-08-17 00:00		560117-008
North sidewall #3	S	08-08-17 00:00		560117-009
Bottomhole #4	S	08-08-17 00:00		560117-010
South Sidewall #4	S	08-08-17 00:00		560117-011
North Sidewall #4	S	08-08-17 00:00		560117-012
Bottomhole #5	S	08-08-17 00:00		560117-013
South Sidewall #5	S	08-08-17 00:00		560117-014
North Sidewall #5	S	08-08-17 00:00		560117-015
Bottomhole #6	S	08-08-17 00:00		560117-016
South Sidewall #6	S	08-08-17 00:00		560117-017
North Sidewall #6	S	08-08-17 00:00		560117-018
Bottomhole #7	S	08-08-17 00:00		560117-019
South Sidewall #7	S	08-08-17 00:00		560117-020
North Sidewall #7	S	08-08-17 00:00		560117-021
Bottomhole #8	S	08-08-17 00:00		560117-022
South Sidewall #8	S	08-08-17 00:00		560117-023
North Sidewall #8	S	08-08-17 00:00		560117-024
Bottomhole #9	S	08-10-17 00:00		560117-025
South Sidewall #9	S	08-10-17 00:00		560117-026
North Sidewall #9	S	08-10-17 00:00		560117-027
Bottomhole #10	S	08-10-17 00:00		560117-028
South Sidewall #10	S	08-10-17 00:00		560117-029
North Sidewall #10	S	08-10-17 00:00		560117-030
Bottomhole #11	S	08-10-17 00:00		560117-031
North Sidewall #11	S	08-10-17 00:00		560117-032
South Sidewall #11	S	08-10-17 00:00		560117-033
Bottomhole #12	S	08-10-17 00:00		560117-034
North Sidewall #12	S	08-10-17 00:00		560117-035
South Sidewall #12	S	08-11-17 00:00		560117-036
Bottomhole #13	S	08-11-17 00:00		560117-037
North Sidewall #13	S	08-11-17 00:00		560117-038
South Sidewall #13	S	08-11-17 00:00		560117-039
Bottomhole #14	S	08-11-17 00:00		560117-040
South Sidewall #14	S	08-11-17 00:00		560117-041
North Sidewall #14	S	08-11-17 00:00		560117-042
Bottomhole #15	S	08-11-17 00:00		560117-043

South Sidewall #15	S	08-11-17 00:00	560117-044
North Sidewall #15	S	08-11-17 00:00	560117-045
Bottomhole #16	S	08-11-17 00:00	560117-046
South Sidewall #16	S	08-11-17 00:00	560117-047
North Sidewall #16	S	08-11-17 00:00	560117-048
Bottomhole #17	S	08-11-17 00:00	560117-049
South Sidewall #17	S	08-11-17 00:00	560117-050
North Sidewall #17	S	08-11-17 00:00	560117-051
Bottomhole #18	S	08-11-17 00:00	560117-052
North Sidewall #18	S	08-11-17 00:00	560117-053
South Sidewall #18	S	08-11-17 00:00	560117-054

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-001		560117-002		560117-003		560117-004		560117-005		560117-006	
	Field Id:	Bottomhole #1		South Sidewall #1		North Sidewall #1		Bottomhole #2		South sidewall #2		North Sidewall #2	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24	
	Analyzed:	Aug-15-17 18:39		Aug-15-17 19:09		Aug-15-17 19:19		Aug-15-17 19:29		Aug-15-17 19:39		Aug-15-17 20:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		24.9	4.92	37.2	4.96	23.1	4.99	22.8	4.92	38.9	4.99	23.7	4.93

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-007		560117-008		560117-009		560117-010		560117-011		560117-012	
	Field Id:	Bottomhole #3		South sidewall #3		North sidewall #3		Bottomhole #4		South Sidewall #4		North Sidewall #4	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24	
	Analyzed:	Aug-15-17 20:19		Aug-15-17 20:29		Aug-15-17 20:39		Aug-15-17 20:49		Aug-15-17 20:59		Aug-15-17 21:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		23.3	4.93	26.2	5.00	26.2	4.94	34.3	4.98	31.4	4.95	43.7	5.00

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-013		560117-014		560117-015		560117-016		560117-017		560117-018	
	Field Id:	Bottomhole #5		South Sidewall #5		North Sidewall #5		Bottomhole #6		South Sidewall #6		North Sidewall #6	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:24	
	Analyzed:	Aug-15-17 21:39		Aug-15-17 22:09		Aug-15-17 22:19		Aug-15-17 22:29		Aug-15-17 22:39		Aug-15-17 22:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		54.2	4.99	29.1	4.97	22.5	5.00	65.8	4.97	45.7	4.99	36.0	4.93

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-019		560117-020		560117-021		560117-022		560117-023		560117-024	
	Field Id:	Bottomhole #7		South Sidewall #7		North Sidewall #7		Bottomhole #8		South Sidewall #8		North Sidewall #8	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00		Aug-08-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-15-17 11:24		Aug-15-17 11:24		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35	
	Analyzed:	Aug-15-17 22:59		Aug-15-17 23:09		Aug-15-17 23:41		Aug-16-17 00:12		Aug-16-17 00:23		Aug-16-17 00:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		152	4.91	47.4	4.97	42.4	4.98	139	5.00	245	4.93	47.4	4.97

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-025		560117-026		560117-027		560117-028		560117-029		560117-030	
	Field Id:	Bottomhole #9		South Sidewall #9		North Sidewall #9		Bottomhole #10		South Sidewall #10		North Sidewall #10	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-10-17 00:00		Aug-10-17 00:00		Aug-10-17 00:00		Aug-10-17 00:00		Aug-10-17 00:00		Aug-10-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35	
	Analyzed:	Aug-16-17 00:43		Aug-16-17 01:14		Aug-16-17 01:25		Aug-16-17 01:35		Aug-16-17 01:45		Aug-16-17 01:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		188	4.92	47.7	4.92	237	4.99	83.0	4.99	55.7	4.94	31.8	4.94

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-031		560117-032		560117-033		560117-034		560117-035		560117-036	
	Field Id:	Bottomhole #11		North Sidewall #11		South Sidewall #11		Bottomhole #12		North Sidewall #12		South Sidewall #12	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-10-17 00:00		Aug-10-17 00:00		Aug-10-17 00:00		Aug-10-17 00:00		Aug-10-17 00:00		Aug-11-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35	
	Analyzed:	Aug-16-17 02:06		Aug-16-17 02:37		Aug-16-17 02:47		Aug-16-17 03:19		Aug-16-17 03:29		Aug-16-17 03:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		57.0	4.97	120	4.93	281	4.97	65.9	4.94	119	4.95	37.0	4.94

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-037		560117-038		560117-039		560117-040		560117-041		560117-042	
	Field Id:	Bottomhole #13		North Sidewall #13		South Sidewall #13		Bottomhole #14		South Sidewall #14		North Sidewall #14	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-15-17 11:35		Aug-16-17 09:00		Aug-16-17 09:00	
	Analyzed:	Aug-16-17 03:50		Aug-16-17 04:00		Aug-16-17 04:10		Aug-16-17 04:21		Aug-16-17 10:46		Aug-16-17 11:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		80.6	4.93	22.6	4.95	76.9	4.91	129	4.94	<4.95	4.95	148	4.91

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-043		560117-044		560117-045		560117-046		560117-047		560117-048	
	Field Id:	Bottomhole #15		South Sidewall #15		North Sidewall #15		Bottomhole #16		South Sidewall #16		North Sidewall #16	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00	
	Analyzed:	Aug-16-17 11:16		Aug-16-17 11:24		Aug-16-17 11:32		Aug-16-17 11:55		Aug-16-17 12:02		Aug-16-17 12:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		105	4.97	<4.95	4.95	<4.90	4.90	61.1	4.91	14.5	4.96	34.7	4.99

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 560117

Tetra Tech- Midland, Midland, TX

Project Name: D&T Speedy 16 State Commingle 501H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea County NM

Date Received in Lab: Mon Aug-14-17 02:56 pm
Report Date: 17-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560117-049		560117-050		560117-051		560117-052		560117-053		560117-054	
	Field Id:	Bottomhole #17		South Sidewall #17		North Sidewall #17		Bottomhole #18		North Sidewall #18		South Sidewall #18	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00		Aug-11-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00		Aug-16-17 09:00	
	Analyzed:	Aug-16-17 12:18		Aug-16-17 12:25		Aug-16-17 12:33		Aug-16-17 12:56		Aug-16-17 13:04		Aug-16-17 13:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		102	4.97	6.08	4.99	<4.96	4.96	<4.93	4.93	6.10	4.90	25.9	4.98

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

BS / BSD Recoveries

Project Name: D&T Speedy 16 State Commingle 501H

Work Order #: 560117 **Project ID:** 212C-MD-00901

Analyst: MGO **Date Prepared:** 08/15/2017 **Date Analyzed:** 08/15/2017

Lab Batch ID: 3025176 **Sample:** 729368-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	252	101	250	253	101	0	90-110	20	

Analyst: MGO **Date Prepared:** 08/15/2017 **Date Analyzed:** 08/15/2017

Lab Batch ID: 3025201 **Sample:** 729369-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	258	103	250	267	107	3	90-110	20	

Analyst: MGO **Date Prepared:** 08/16/2017 **Date Analyzed:** 08/16/2017

Lab Batch ID: 3025131 **Sample:** 729371-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	253	101	250	248	99	2	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: D&T Speedy 16 State Commingle 501H

Work Order # : 560117 **Project ID:** 212C-MD-00901

Lab Batch ID: 3025131 **QC- Sample ID:** 560117-041 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/16/2017 **Date Prepared:** 08/16/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.95	248	271	109	248	271	109	0	90-110	20	

Lab Batch ID: 3025131 **QC- Sample ID:** 560117-051 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/16/2017 **Date Prepared:** 08/16/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.96	248	268	108	248	265	107	1	90-110	20	

Lab Batch ID: 3025176 **QC- Sample ID:** 560117-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/15/2017 **Date Prepared:** 08/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	24.9	246	260	96	246	264	97	2	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: D&T Speedy 16 State Commingle 501H

Work Order # : 560117 **Project ID:** 212C-MD-00901

Lab Batch ID: 3025176 **QC- Sample ID:** 560117-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/15/2017 **Date Prepared:** 08/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	31.4	248	270	96	248	272	97	1	90-110	20	

Lab Batch ID: 3025201 **QC- Sample ID:** 560117-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/15/2017 **Date Prepared:** 08/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	42.4	249	286	98	249	286	98	0	90-110	20	

Lab Batch ID: 3025201 **QC- Sample ID:** 560117-031 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/16/2017 **Date Prepared:** 08/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	57.0	249	301	98	249	308	101	2	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

560117

D&T / EOG

Site Manager: Ike Tavarez

Project Name: D&T Speed 16 State Commingle 501H

Project Location: (county, state) Lea County NM

Project #: 212c-MD-00901

Invoice to:

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: DATE	TIME	MATRIX WATER	SOIL		PRESERVATIVE METHOD HCL	HNO_3	ICE			# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance					Hold
	Bottomhole # 1	8/8/2017			x				x																			x								
	South sidewall # 1	8/8/2017			x				x																			x								
	North sidewall # 1	8/8/2017			x				x																			x								
	Bottomhole # 2	8/8/2017			x				x																			x								
	South sidewall # 2	8/8/2017			x				x																			x								
	North sidewall # 2	8/8/2017			x				x																			x								
	Bottomhole # 3	8/8/2017			x				x																			x								
	South sidewall # 3	8/8/2017			x				x																			x								
	North sidewall # 3	8/8/2017			x				x																			x								
	Bottomhole # 4	8/8/2017			x				x																			x								

Final 1.000

Page 19 of 25

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	8-14-17	1456	Julian M	8-14-17	14:56
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature

REMARKS:

☒ RUSH: Same Day 24 hr (48 hr) 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HOLD

ORIGINAL COPY

Temp: 21.2 IR ID:R-8

CF:(0-6: -0.2°C)
(6-23: +0.2°C)

Corrected Temp: 21.0

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

S60117

D&T / EOG

Site Manager: Ike Tavarez

Project Name: D&T Speed 16 State Commingle 501H

Project Location: (county, state) LEA County NM

Project #: 212c-MD-00901

Invoice to:

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
	South sidewall # 4	8/8/2017			x				x				
	North sidewall # 4	8/8/2017			x				x				
	Bottomhole # 5	8/8/2017			x				x				
	South sidewall # 5	8/8/2017			x				x				
	North sidewall # 2 ~~5~~ #5	8/8/2017			x				x				
	Bottomhole # 6	8/8/2017			x				x				
	South sidewall # 6	8/8/2017			x				x				
	North sidewall # 6	8/8/2017			x				x				
	Bottomhole # 7	8/8/2017			x				x				
	South sidewall # 7	8/8/2017			x				x				

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							

Relinquished by: Date: 8-14-17 Time: 1456

Received by: Julian P Date: 8-14-17 Time: 14:56

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature

(Circle) HAN

REMARKS:

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Temp: 21.2 IR ID:R-8

CF:(0-6: -0.2°C)
(6-23: +0.2°C)

Corrected Temp: 21.0

ORIGINAL COPY

Final 1.000

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

560117

D&T / EOG

Site Manager: Ike Tavarez

Project Name: D&T Speed 16 State Commingle 501H

Project Location: (county, state) Lea County NM

Project #: 212c-MD-00901

Invoice to:

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD:	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)
	North sidewall # 7	8/8/2017			x				x			1	n
	Bottomhole # 8	8/8/2017			x				x			1	n
	South sidewall # 8	8/8/2017			x				x			1	n
	North sidewall # 8	8/8/2017			x				x			1	n
	Bottomhole # 9	8-10-17			x				x			1	n
	South sidesidewall # 9	8-10-17			x				x			1	n
	North sidewall # 9	8-10-17			x				x			1	n
	Bottomhole # 10	8-10-17			x				x			1	n
	South sidewall # 10	8-10-17			x				x			1	n
	North sidewall # 10	8-10-17			x				x			1	n

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							

Relinquished by: Date: 8-14-17 Time: 1456
Received by: Julian M Date: 8.14.17 Time: 14:56

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY

Sample Temperature

REMARKS:

☒ RUSH: Same Day 24 hr (48 hr) 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

Temp: 21.2 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 21.0

ORIGINAL COPY

Final 1.000

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

560117

D&T / EOG

Site Manager: Ike Tavarez

Project Name: D&T Speed 16 State Commingle 501H

Project Location: (county, state) Lea County NM

Project #: 212c-MD-00901

Invoice to:

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD:	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)
	Bottomhole # 11	8-10-17			x				x			1	n
	North sidewall # 11	8-10-17			x				x			1	n
	South sidewall # 11	8-10-17			x				x			1	n
	Bottomhole # 12	8-10-17			x				x			1	n
	North sidewall # 12	8-10-17			x				x			1	n
	South sidewall # 12	8-10-17			x				x			1	n
	Bottomhole # 13	8-11-17			x				x			1	n
	North sidewall # 13	8-11-17			x				x			1	n
	South sidewall # 13	8-11-17			x				x			1	n
	Bottomhole # 14	8-11-17			x				x			1	n

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							
														x							

Relinquished by: Date: 8-14-17 Time: 1456
Received by: Julian M Date: 8.14.17 Time: 14:56

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY

Sample Temperature

REMARKS:

☒ RUSH: Same Day 24 hr (48 hr) 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(C Temp: 21.2 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 21.0

ORIGINAL COPY

Final 1.000

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

560117

D&T / EOG

Site Manager: Ike Tavarez

Project Name: D&T Speed 16 State Commingle 501H

Project Location: (county, state) Lea County NM

Project #: 212c-MD-00901

Invoice to:

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: DATE	TIME	MATRIX WATER	SOIL		PRESERVATIVE METHOD HCL	HNO_3	ICE			# CONTAINERS	FILTERED (Y/N)
	South sidewall # 14	8-11-17			x				x			1	n
	North sidewall # 14	8-11-17			x				x			1	n
	Bottomhole # 15	8-11-17			x				x			1	n
	South sidewall # 15	8-11-17			x				x			1	n
	North sidewall # 15	8-11-17			x				x			1	n
	Bottomhole # 16	8-11-17			x				x			1	n
	South sidewall # 16	8-11-17			x				x			1	n
	North sidewall # 16	8-11-17			x				x			1	n
	Bottomhole # 17	8-11-17			x				x			1	n
	South sidewall # 17	8-11-17			x				x			1	n

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance			Hold
														x						
														x						
														x						
														x						
														x						
														x						
														x						
														x						
														x						
														x						
														x						

Relinquished by: Date: 8-14-17 Time: 1456 — Received by: Julian M Date: 8.14.17 Time: 14:56

Relinquished by: Date: Time: — Received by: Date: Time:

Relinquished by: Date: Time: — Received by: Date: Time:

LAB USE ONLY

Sample Temperature

REMARKS:

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Temp: 21.2 IR ID:R-8

CF:(0-6: -0.2°C)
(6-23: +0.2°C)

Corrected Temp: 21.0

cking #:

ORIGINAL COPY

Final 1.000

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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401 Midland,Texas 79705
Tel (432) 682-4559
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560117

D&T / EOG

Site Manager: Ike Tavarez

Project Name: D&T Speed 16 State Commingle 501H

Project Location: (county, state) Lea County NM

Project #: 212c-MD-00901

Invoice to:

Receiving Laboratory: XENCO

Sampler Signature: Mathew McDaniel

Comments:

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
	North sidewall # 17	8-11-17			x				x			1	n
	Bottomhole # 18	8-11-17			x				x			1	n
	North sidewall # 18	8-11-17			x				x			1	n
	South sidewall # 18	8-11-17			x				x			1	n

BTEX 8021B BTEX 8260B
TPH TX1005 (Ext to C35)
TPH 8015M (GRO - DRO - ORO - MRO)
PAH 8270C
Total Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Volatiles
TCLP Semi Volatiles
RCI
GC/MS Vol. 8260B / 624
GC/MS Semi. Vol. 8270C/625
PCB's 8082 / 608
NORM
PLM (Asbestos)
Chloride
Chloride Sulfate TDS
General Water Chemistry (see attached list)
Anion/Cation Balance
Hold

Final 1.000

Page 24 of 25

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	8-14-17	1456	Julian M	8.14.17	14:56
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature

REMARKS:

☒ RUSH: Same Day 24 hr (48 hr) 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

JPS Tracking #: _____

ORIGINAL COPY

Temp: 21.2 IR ID:R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 21.0

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 08/14/2017 02:56:00 PM

Work Order #: 560117

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	21
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 08/14/2017
Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 08/14/2017
Kelsey Brooks

Analytical Report 560317

for

Tetra Tech- Midland

Project Manager: Ike Tavarez

D&T Trucking/E06 Speedy 16 State Comminsle 501 H

212C-MD-00901

18-AUG-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

18-AUG-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **560317**
D&T Trucking/E06 Speedy 16 State Comminsle 501 H
Project Address: Lea co,NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 560317. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 560317 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Gale Denman

Gale Denman
Project Manager

Sample Cross Reference 560317

Tetra Tech- Midland, Midland, TX

D&T Trucking/E06 Speedy 16 State Comminsle 501 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottomhole #19	S	08-15-17 00:00		560317-001
East side wall #19	S	08-15-17 00:00		560317-002
West side wall #19	S	08-15-17 00:00		560317-003
Bottomhole #20	S	08-15-17 00:00		560317-004
East Sidewall #20	S	08-15-17 00:00		560317-005
West Sidewall #20	S	08-15-17 00:00		560317-006
Bottomhole #21	S	08-15-17 00:00		560317-007
East Sidewall #21	S	08-15-17 00:00		560317-008
West Sidewall #21	S	08-15-17 00:00		560317-009
Bottom hole #22	S	08-15-17 00:00		560317-010
East Sidewall #22	S	08-15-17 00:00		560317-011
West Sidewall #22	S	08-15-17 00:00		560317-012
Bottom hole #23	S	08-15-17 00:00		560317-013
East Side wall #23	S	08-15-17 00:00		560317-014
West Sidewall #23	S	08-15-17 00:00		560317-015
South Sidewall #23	S	08-15-17 00:00		560317-016
AH1 Step out (0-1)	S	08-15-17 00:00		560317-017
AH2 Step out (0-1)	S	08-15-17 00:00		560317-018

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 560317

Tetra Tech- Midland, Midland, TX

Project Name: D&T Trucking/E06 Speedy 16 State Comminsle 501 H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea co,NM

Date Received in Lab: Wed Aug-16-17 01:06 pm
Report Date: 18-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560317-001		560317-002		560317-003		560317-004		560317-005		560317-006	
	Field Id:	Bottomhole #19		East side wall #19		West side wall #19		Bottomhole #20		East Sidewall #20		West Sidewall #20	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15	
	Analyzed:	Aug-18-17 02:31		Aug-18-17 02:54		Aug-18-17 03:02		Aug-18-17 03:10		Aug-18-17 03:18		Aug-18-17 03:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.97	4.97	34.8	4.99	116	4.91	35.7	4.93	85.9	4.98	<4.96	4.96

Gale Denman
Project Manager

Certificate of Analysis Summary 560317

Tetra Tech- Midland, Midland, TX

Project Name: D&T Trucking/E06 Speedy 16 State Comminsle 501 H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea co,NM

Date Received in Lab: Wed Aug-16-17 01:06 pm
Report Date: 18-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560317-007		560317-008		560317-009		560317-010		560317-011		560317-012	
	Field Id:	Bottomhole #21		East Sidewall #21		West Sidewall #21		Bottom hole #22		East Sidewall #22		West Sidewall #22	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15	
	Analyzed:	Aug-18-17 03:48		Aug-18-17 03:56		Aug-18-17 04:04		Aug-18-17 04:11		Aug-18-17 04:19		Aug-18-17 04:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		81.4	4.92	150	4.92	63.4	4.94	409	4.95	79.6	4.98	70.3	4.94

Gale Denman
Project Manager

Certificate of Analysis Summary 560317

Tetra Tech- Midland, Midland, TX

Project Name: D&T Trucking/E06 Speedy 16 State Comminsle 501 H

Project Id: 212C-MD-00901
Contact: Ike Tavarez
Project Location: Lea co,NM

Date Received in Lab: Wed Aug-16-17 01:06 pm
Report Date: 18-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	560317-013		560317-014		560317-015		560317-016		560317-017		560317-018	
	Field Id:	Bottom hole #23		East Side wall #23		West Sidewall #23		South Sidewall #23		AH1 Step out (0-1)		AH2 Step out (0-1)	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00		Aug-15-17 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15		Aug-17-17 15:15	
	Analyzed:	Aug-18-17 04:50		Aug-18-17 05:13		Aug-18-17 05:20		Aug-18-17 05:28		Aug-18-17 05:36		Aug-18-17 05:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		30.7	4.97	43.3	4.96	141	4.94	418	4.90	127	4.93	69.7	4.91

Gale Denman
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

BS / BSD Recoveries

Project Name: D&T Trucking/E06 Speedy 16 State Comminsle 501 H

Work Order #: 560317 **Project ID:** 212C-MD-00901

Analyst: MGO **Date Prepared:** 08/17/2017 **Date Analyzed:** 08/18/2017

Lab Batch ID: 3025291 **Sample:** 729497-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.98	249	259	104	249	255	102	2	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: D&T Trucking/E06 Speedy 16 State Comminsle 501 H

Work Order # : 560317 **Project ID:** 212C-MD-00901

Lab Batch ID: 3025291 **QC- Sample ID:** 560317-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/18/2017 **Date Prepared:** 08/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.97	249	267	107	249	265	106	1	90-110	20	

Lab Batch ID: 3025291 **QC- Sample ID:** 560317-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/18/2017 **Date Prepared:** 08/17/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	79.6	249	338	104	249	335	103	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

560317

Client Name: DFI Trucking / Eo6

Site Manager: Elle Tavarez

Project Name: Speedy 16 State Commingle 501 H

Project Location: (county, state) Lea Co, NM

Project #: 212c-md-00901

Invoice to:

Receiving Laboratory: Xenco

Sampler Signature: Matthew McDaniel

Comments: 48 HR Turnaround

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	FILTERED (Y/N)
	Bottomhole #19	8-15-17			X			X	1	N
	East Sidewall #19				X			X	1	N
	west sidewall #19				X			X	1	N
	Bottomhole #20				X			X	1	N
	East Sidewall #20				X			X	1	N
	west sidewall #20				X			X	1	N
	Bottomhole #21				X			X	1	N
	East Sidewall #21				X			X	1	N
	west Sidewall #21				X			X	1	N
	Bottomhole #22				X			X	1	N

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
														X							
														X							
														X							
														X							
														X							
														X							
														X							
														X							
														X							
														X							

Relinquished by: Date: 8-16-17 Time: 1305

Received by: Date: 8-16-17 Time: 13:06

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

RUSH: Same Day 24 hr (48 hr) 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Temp: 8.4 IR ID:R-8

CF:(0-6: -0.2°C)
(6-23: +0.2°C)

Corrected Temp: 8.2

Analysis Request of Chain of Custody Record

Page 2 of 2

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

560317

Client Name: O&T Trucking / EOG	Site Manager: Ike Tavarez
Project Name: Speedy 16 State Commingle 501 H	
Project Location: (county, state) Lea Co, NM	Project #: 212c-MD-00901
Invoice to:	
Receiving Laboratory: Xenco	Sampler Signature: [signature]
Comments: C/8 HR	

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE HCL	PRESERVATIVE HNO_3	PRESERVATIVE ICE	# CONTAINERS	FILTERED (Y/N)	Chloride
	East Sidewall #22	8-15-17			X			X	1	N	X
	West Sidewall #22	↓			X			X	1	N	X
	Bottomhole #23	↓			X			X	1	N	X
	East Sidewall #23	↓			X			X	1	N	X
	West Sidewall #23	↓			X			X	1	N	X
	South Sidewall #24	↓			X			X	1	N	X
	AH1 Stepout (0-1)	↓			X			X	1	N	X
	AH2 Stepout (0-1)	↓			X			X	1	N	X

Analysis options: BTEX 8021B, BTEX 8260B; TPH TX1005 (Ext to C35); TPH 8015M (GRO - DRO - ORO - MRO); PAH 8270C; Total Metals Ag As Ba Cd Cr Pb Se Hg; TCLP Metals Ag As Ba Cd Cr Pb Se Hg; TCLP Volatiles; TCLP Semi Volatiles; RCI; GC/MS Vol. 8260B / 624; GC/MS Semi. Vol. 8270C/625; PCB's 8082 / 608; NORM; PLM (Asbestos); Chloride (circled); Chloride Sulfate TDS; General Water Chemistry (see attached list); Anion/Cation Balance; Hold

Relinquished by: [signature]	Date: 8/15/17	Time: 1305	Received by: [signature]	Date: 8-16-17	Time: 13:06
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY
Sample Temperature

REMARKS:
☐ RUSH: Same Day 24 hr (48 hr) 72 hr
☐ Rush Charges Authorized
☐ Special Report Limits or TRRP Report

(Circle

Temp: 8.4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 8.2

ORIGINAL COPY

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 08/16/2017 01:06:00 PM

Work Order #: 560317

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	8.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 08/16/2017
Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 08/16/2017
Kelsey Brooks