Mr. Bill Dougherty
Field Supervisor
NADEL & GUSSMAN PERMIAN, LLC
2408 Freeman Avenue
Artesia, New Mexico 88210

January 4, 2016

Ms. Heather Patterson
NEW MEXICO OIL CONSERVATION DIVISION
District 2
811 South First Street
Artesia, New Mexico 88210

Ms. Amber Groves
NEW MEXICO STATE LAND OFFICE
Hobbs District
2827 N. Dal Paso Street
Suite No. 117
Hobbs, New Mexico 88240

Re: Aid State No.10 Corrective Action Plan/ Final Remediation Report
U/L G 13-17S-28E 1650' FNL 2310' FEL, Eddy County, New Mexico
API No. 30-015-38462

Dear Ms.'s Patterson and Groves:

Nadel & Gussman Permian, LLC (NGP) herewith submits its Corrective Action Plan (CAP) and Final Remediation Report (FRR) in one document for the unauthorized, hydrocarbon and produced water discharge, caused by a manway gasket leak from the heater treater located on the Aid State No. 10 at approximately 1300 Hrs. on July 30, 2015. Ms. Patterson of the New Mexico Oil Conservation Division (NMOCD) in Eddy County, New Mexico was notified at approximately 1400 Hrs. of the overspray onto state lands by NGP's company official. The New Mexico State Land Office was notified approximately 24 hours later of the discharge predicated on an overspray scenario, which was treated with Microblaze, rather than excavation of the impacted soils and plants. The application rate is unknown.

In October 2015, a down gradient accumulation of the contaminants was found in the sandy soils, extending approximately 120' west of the heater treater with a horizontal contaminant range of approximately 150' north and 150' south of the heater treater, resulting in a 2' - 3.5' contamination depth. However, approximately, seventy-five percent of the contaminant footprint ranged in depth from 1" to 3", primarily dependent upon the retention time moving westerly along the significantly wide, downhill gradient. The absorption rate, mainly from the overspray, running north and south along the well pad, produced a fairly uniform contamination pattern, since retention times were generally uniform and the gradient areas immediately adjacent to the pad were less steep with thin soils. Additionally, soil in the impounded areas contained pebbles and small rocks which were embedded in either a sandy-loamy mix or a blow sand composition, resulting in a high permeability

soils, which allowed rapid movement of the contamination into deeper soil layers.

Following from the July 30th scenario, NGP called for a vacuum truck to begin sucking up the fluid contained within the 20ml HDPE lined, bermed area, surrounding the heater treater resulting in the recovery of 72 bbls of oil. However, due to extremely high winds that day, (sustained around 35mph, gusting to 50mph), the discharged fluids contained within the walls of the berm had provided a wave-like surface from which the wind obtained access to them, continuing to move hydrocarbon particles in the form of a running discharge toward the west. The resultant accumulation of contaminant fluids was not identified as anything other than, a very light, surface footprint. The blowing sand and other airborne particles obscured any down gradient footprint to the degree that in October 2015, when the second set of samples were taken, it was barely noticeable.

A pilot sample was again taken on October 26th to confirm whether or not additional excavation would be needed and to what depth, once NGP realized the overspray also had a potential collection area, birthed by a depression in the sand, allowing the topographic relief of the area to address its diversity, creating a shape, almost like two large bowls. Therein, the remaining contaminant was located and later excavated. The October 28th sampling, more accurately delineated the existing conditions and depth of the contamination, which then became the directive to complete the project.

The most significant accumulation was approximately 150' down gradient from the pad. Although the entire affected area was excavated, the majority of the contaminated soil was removed from the lowest elevation. Approximately 144 yards of contaminated material was removed and hauled to R360 for disposal. New samples were obtained to verify the area was remediated to NMOCD regulatory standards (see enclosed), such that NGP could commence with backfilling and seeding. The NMOCD and the NMSLO were consulted, shown the laboratory analytical results and photos. Ms. Groves came to the location to verify the infield operations as reported by NGP. NGP then backfilled a total of 9 loads of clean fill obtained from a local caliche pit, returning the footprint area to its topographical elevation commensurate with the surrounding terrain.

The Bureau of Land Management (BLM) Seed Mix No. 2 was applied and disked into the soil. The New Mexico State Land Office was contacted prior to ordering the seed mix. NGP was requested to notify Ms. Groves prior to application of the seed such that she could witness the event. Unfortunately, the seed mix was accidently applied without Ms. Groves presence, due to a communication glitch. It is estimated it will take 2 to 5 years before diverse, indigenous speciation occurs, predicated on annual rainfall and temperatures.

Enclosed are all sample analyticals, pertinent photos, initial and final C141's

Please call should you have questions.

Regards,

Bill Dougherty
Field Supervisor


AID STATE #10
NOT TO SCALE
-CONTAMINATED SITE
-REMEDIATED
Google earth
1996
Imagery Date: 5/1/2014 32°50'18.47" N 104°07'44.74" W elev 3717 ft eye alt 4381 ft

Summary Report

Bill Dougherty
Nadel & Gussman Permian LLC
601 N. Marienfeld
Suite 508
Midland, TX 79701

Report Date: August 14, 2015

Work Order: 15081026

Project Location: Artesia, NM
Project Name: Aid State #10
Project Number: 8/5/15

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
401668	1	soil	2015-08-05	10:00	2015-08-10
401669	2	soil	2015-08-05	10:00	2015-08-10
401670	3	soil	2015-08-05	10:00	2015-08-10
401671	4	soil	2015-08-05	10:00	2015-08-10
401672	5	soil	2015-08-05	10:00	2015-08-10

	BTEX				MTBE	TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	MTBE (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
401668 - 1	<0.100 [1]	<0.100	<0.100	<0.100	<0.100	**2570** B	**20.8** Qr
401669 - 2	<0.400 [2]	**1.52**	**5.17**	**15.6**	<0.400	**12900** B	**732** Qr
401670 - 3	<0.400 [3]	**0.870**	**3.19**	**10.1**	<0.400	**31600** B	**303** Qr
401671 - 4	<0.400 [4]	<0.400	<0.400	**0.551**	<0.400	**2240** B	<80.0 Qr
401672 - 5	**0.772** [5]	**13.6**	**17.2**	**30.9**	<0.400	**30200** B	**1150** Qr

Sample: 401668 - 1

Param	Flag	Result	Units	RL
Chloride		**2230**	mg/Kg	50

Sample: 401669 - 2

[1]Sample dilution due to hydrocarbons.
[2]Sample dilution due to hydrocarbons.
[3]Sample dilution due to hydrocarbons.
[4]Sample dilution due to hydrocarbons.
[5]Sample dilution due to hydrocarbons.

Param	Flag	Result	Units	RL
Chloride		**2620**	mg/Kg	50

Sample: 401670 - 3

Param	Flag	Result	Units	RL
Chloride		**2430**	mg/Kg	50

Sample: 401671 - 4

Param	Flag	Result	Units	RL
Chloride		**10400**	mg/Kg	50

Sample: 401672 - 5

Param	Flag	Result	Units	RL
Chloride		**2330**	mg/Kg	50

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Bill Dougherty
Nadel & Gussman Permian LLC
601 N. Marienfeld
Suite 508
Midland, TX, 79701

Report Date: August 14, 2015

Work Order: 15081026

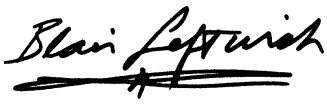
Project Location: Artesia, NM
Project Name: Aid State #10
Project Number: 8/5/15

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
401668	1	soil	2015-08-05	10:00	2015-08-10
401669	2	soil	2015-08-05	10:00	2015-08-10
401670	3	soil	2015-08-05	10:00	2015-08-10
401671	4	soil	2015-08-05	10:00	2015-08-10
401672	5	soil	2015-08-05	10:00	2015-08-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Aid State #10 were received by TraceAnalysis, Inc. on 2015-08-10 and assigned to work order 15081026. Samples for work order 15081026 were received intact at a temperature of 17.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	104852	2015-08-13 at 14:12	124015	2015-08-13 at 14:12
Chloride (Titration)	SM 4500-Cl B	104837	2015-08-13 at 11:48	123997	2015-08-13 at 11:49
MTBE	S 8021B	104852	2015-08-13 at 14:12	124015	2015-08-13 at 14:12
TPH DRO	S 8015 D	104822	2015-08-13 at 09:08	123977	2015-08-13 at 09:13
TPH GRO	S 8015 D	104852	2015-08-13 at 14:12	124016	2015-08-13 at 14:12

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15081026 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 401668 - 1

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	124015	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
MTBE	U	1,3,4,5	<0.100	mg/Kg	5	0.0200
Benzene [1]	U	1,2,3,4,5	<0.100	mg/Kg	5	0.0200
Toluene	U	1,2,3,4,5	<0.100	mg/Kg	5	0.0200
Ethylbenzene	U	1,2,3,4,5	<0.100	mg/Kg	5	0.0200
Xylene	U	1,2,3,4,5	<0.100	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	1.75	mg/Kg	5	2.00	88	65.6 - 125
4-Bromofluorobenzene (4-BFB)		5	1.72	mg/Kg	5	2.00	86	67.9 - 120

Sample: 401668 - 1

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**2230**	mg/Kg	5	50.0

Sample: 401668 - 1

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	123977	Date Analyzed:	2015-08-13	Analyzed By:	HJ
Prep Batch:	104822	Sample Preparation:		Prepared By:	HJ

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1,2,3,4	**2570**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	3	165	mg/Kg	5	25.0	660	48.9 - 172

Sample: 401668 - 1

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	124016	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	1,2,3,4	**20.8**	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3	1.58	mg/Kg	5	2.00	79	76.5 - 130
4-Bromofluorobenzene (4-BFB)		3	2.08	mg/Kg	5	2.00	104	68.4 - 120

Sample: 401669 - 2

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	124015	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
MTBE		U	1,3,4,5	<0.400	mg/Kg	20	0.0200
Benzene	2	U	1,2,3,4,5	<0.400	mg/Kg	20	0.0200
Toluene			1,2,3,4,5	**1.52**	mg/Kg	20	0.0200
Ethylbenzene			1,2,3,4,5	**5.17**	mg/Kg	20	0.0200
Xylene			1,2,3,4,5	**15.6**	mg/Kg	20	0.0200

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			5	1.96	mg/Kg	20	2.00	98	65.6 - 125
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	5	4.84	mg/Kg	20	2.00	242	67.9 - 120

Sample: 401669 - 2

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**2620**	mg/Kg	5	50.0

Sample: 401669 - 2

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	123977	Date Analyzed:	2015-08-13	Analyzed By:	HJ
Prep Batch:	104822	Sample Preparation:		Prepared By:	HJ

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1,2,3,4	**12900**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	3	408	mg/Kg	5	25.0	1632	48.9 - 172

Sample: 401669 - 2

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	124016	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	1,2,3,4	**732**	mg/Kg	20	4.00

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3	1.62	mg/Kg	20	2.00	81	76.5 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3	20.4	mg/Kg	20	2.00	1020	68.4 - 120

Sample: 401670 - 3

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	124015	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
MTBE	3	U	1,3,4,5	<0.400	mg/Kg	20	0.0200
Benzene		U	1,2,3,4,5	<0.400	mg/Kg	20	0.0200
Toluene			1,2,3,4,5	**0.870**	mg/Kg	20	0.0200
Ethylbenzene			1,2,3,4,5	**3.19**	mg/Kg	20	0.0200
Xylene			1,2,3,4,5	**10.1**	mg/Kg	20	0.0200

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	5	3.23	mg/Kg	20	2.00	162	65.6 - 125
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	5	2.70	mg/Kg	20	2.00	135	67.9 - 120

Sample: 401670 - 3

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**2430**	mg/Kg	5	50.0

Sample: 401670 - 3

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	123977	Date Analyzed:	2015-08-13	Analyzed By:	HJ
Prep Batch:	104822	Sample Preparation:		Prepared By:	HJ

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1,2,3,4	**31600**	mg/Kg	10	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	3	1120	mg/Kg	10	25.0	4480	48.9 - 172

Sample: 401670 - 3

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	124016	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	1,2,3,4	**303**	mg/Kg	20	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3	1.64	mg/Kg	20	2.00	82	76.5 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr 3	8.89	mg/Kg	20	2.00	444	68.4 - 120

Sample: 401671 - 4

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	124015	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
MTBE		U	1,3,4,5	<0.400	mg/Kg	20	0.0200
Benzene	4	U	1,2,3,4,5	<0.400	mg/Kg	20	0.0200
Toluene		U	1,2,3,4,5	<0.400	mg/Kg	20	0.0200
Ethylbenzene		U	1,2,3,4,5	<0.400	mg/Kg	20	0.0200
Xylene			1,2,3,4,5	**0.551**	mg/Kg	20	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	2.42	mg/Kg	20	2.00	121	65.6 - 125
4-Bromofluorobenzene (4-BFB)		5	2.13	mg/Kg	20	2.00	106	67.9 - 120

Sample: 401671 - 4

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**10400**	mg/Kg	5	50.0

Sample: 401671 - 4

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	123977	Date Analyzed:	2015-08-13	Analyzed By:	HJ
Prep Batch:	104822	Sample Preparation:		Prepared By:	HJ

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1,2,3,4	**2240**	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	3	94.3	mg/Kg	1	25.0	377	48.9 - 172

Sample: 401671 - 4

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	124016	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	1,2,3,4	<80.0	mg/Kg	20	4.00

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3	2.16	mg/Kg	20	2.00	108	76.5 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3	3.82	mg/Kg	20	2.00	191	68.4 - 120

Sample: 401672 - 5

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	124015	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
MTBE		U	1,3,4,5	<0.400	mg/Kg	20	0.0200
Benzene	5		1,2,3,4,5	**0.772**	mg/Kg	20	0.0200
Toluene			1,2,3,4,5	**13.6**	mg/Kg	20	0.0200
Ethylbenzene			1,2,3,4,5	**17.2**	mg/Kg	20	0.0200
Xylene			1,2,3,4,5	**30.9**	mg/Kg	20	0.0200

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	5	2.65	mg/Kg	20	2.00	132	65.6 - 125
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	5	4.32	mg/Kg	20	2.00	216	67.9 - 120

Sample: 401672 - 5

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	**2330**	mg/Kg	5	50.0

Sample: 401672 - 5

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	123977	Date Analyzed:	2015-08-13	Analyzed By:	HJ
Prep Batch:	104822	Sample Preparation:		Prepared By:	HJ

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1,2,3,4	**30200**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	3	1240	mg/Kg	5	25.0	4960	48.9 - 172

Sample: 401672 - 5

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	124016	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	Sample Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	1,2,3,4	**1150**	mg/Kg	20	4.00

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3	1.54	mg/Kg	20	2.00	77	76.5 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3	32.7	mg/Kg	20	2.00	1635	68.4 - 120

Method Blanks

Method Blank (1) QC Batch: 123977

QC Batch:	123977	Date Analyzed:	2015-08-13	Analyzed By:	HJ
Prep Batch:	104822	QC Preparation:	2015-08-13	Prepared By:	HJ

Parameter		Flag	Cert	MDL Result	Units	RL
DRO	B	B	1,2,3,4	16.2	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		3	30.3	mg/Kg	1	25.0	121	48.9 - 172

Method Blank (1) QC Batch: 123997

QC Batch:	123997	Date Analyzed:		Analyzed By:	
Prep Batch:		QC Preparation:		Prepared By:	

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	<31.4	mg/Kg	50

Method Blank (1) QC Batch: 124015

QC Batch:	124015	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	QC Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	MDL Result	Units	RL
MTBE		1,3,4,5	<0.00852	mg/Kg	0.02
Benzene		1,2,3,4,5	<0.00444	mg/Kg	0.02
Toluene		1,2,3,4,5	<0.00457	mg/Kg	0.02
Ethylbenzene		1,2,3,4,5	<0.00762	mg/Kg	0.02
Xylene		1,2,3,4,5	<0.00367	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	2.02	mg/Kg	1	2.00	101	65.6 - 125
4-Bromofluorobenzene (4-BFB)		5	2.06	mg/Kg	1	2.00	103	67.9 - 120

Method Blank (1) QC Batch: 124016

QC Batch:	124016	Date Analyzed:	2015-08-13	Analyzed By:	MT
Prep Batch:	104852	QC Preparation:	2015-08-13	Prepared By:	MT

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1,2,3,4	<0.641	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3	1.90	mg/Kg	1	2.00	95	76.5 - 130
4-Bromofluorobenzene (4-BFB)		3	1.94	mg/Kg	1	2.00	97	68.4 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 123977 | Date Analyzed: 2015-08-13 | Analyzed By: HJ
Prep Batch: 104822 | QC Preparation: 2015-08-13 | Prepared By: HJ

Param		F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	B	B	1,2,3,4	532	mg/Kg	1	500	16.2	103	60.9 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	B	B	1,2,3,4	482	mg/Kg	1	500	16.2	93	60.9 - 130	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	3	33.2	30.7	mg/Kg	1	25.0	133	123	48.9 - 172

Laboratory Control Spike (LCS-1)

QC Batch: 123997 | Date Analyzed: | Analyzed By:
Prep Batch: | QC Preparation: | Prepared By:

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2380	mg/Kg	5	2500	<157	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	2380	mg/Kg	5	2500	<157	95	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 124015 | Date Analyzed: 2015-08-13 | Analyzed By: MT
Prep Batch: 104852 | QC Preparation: 2015-08-13 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
MTBE		1,3,4,5	2.07	mg/Kg	1	2.00	<0.00852	104	73.6 - 120
Benzene		1,2,3,4,5	1.90	mg/Kg	1	2.00	<0.00444	95	71.4 - 120
Toluene		1,2,3,4,5	1.90	mg/Kg	1	2.00	<0.00457	95	71.8 - 120
Ethylbenzene		1,2,3,4,5	1.88	mg/Kg	1	2.00	<0.00762	94	71.1 - 120
Xylene		1,2,3,4,5	5.52	mg/Kg	1	6.00	<0.00367	92	72.5 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
MTBE		1,3,4,5	2.11	mg/Kg	1	2.00	<0.00852	106	73.6 - 120	2	20
Benzene		1,2,3,4,5	1.95	mg/Kg	1	2.00	<0.00444	98	71.4 - 120	3	20
Toluene		1,2,3,4,5	1.96	mg/Kg	1	2.00	<0.00457	98	71.8 - 120	3	20
Ethylbenzene		1,2,3,4,5	1.94	mg/Kg	1	2.00	<0.00762	97	71.1 - 120	3	20
Xylene		1,2,3,4,5	5.70	mg/Kg	1	6.00	<0.00367	95	72.5 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	1.81	1.88	mg/Kg	1	2.00	90	94	65.6 - 125
4-Bromofluorobenzene (4-BFB)	5	1.90	1.93	mg/Kg	1	2.00	95	96	67.9 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 124016 | Date Analyzed: 2015-08-13 | Analyzed By: MT
Prep Batch: 104852 | QC Preparation: 2015-08-13 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1,2,3,4	15.9	mg/Kg	1	20.0	<0.641	80	60.3 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1,2,3,4	16.1	mg/Kg	1	20.0	<0.641	80	60.3 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[3]	1.71	1.71	mg/Kg	1	2.00	86	86	76.5 - 130
4-Bromofluorobenzene (4-BFB)	[3]	1.97	2.02	mg/Kg	1	2.00	98	101	68.4 - 120

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 401356

QC Batch: 123977 | Date Analyzed: 2015-08-13 | Analyzed By: HJ
Prep Batch: 104822 | QC Preparation: 2015-08-13 | Prepared By: HJ

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	B	B	1,2,3,4	746	mg/Kg	1	500	265	96	47.9 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	B	B	1,2,3,4	748	mg/Kg	1	500	265	97	47.9 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	3	168	172	mg/Kg	1	150	112	115	48.9 - 172

Matrix Spike (MS-1) Spiked Sample: 401672

QC Batch: 123997 | Date Analyzed: | Analyzed By:
Prep Batch: | QC Preparation: | Prepared By:

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	4600	mg/Kg	5	2500	2330	91	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	4700	mg/Kg	5	2500	2330	95	80 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 401350

QC Batch: 124015 | Date Analyzed: 2015-08-13 | Analyzed By: MT
Prep Batch: 104852 | QC Preparation: 2015-08-13 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
MTBE		1,3,4,5	2.54	mg/Kg	5	2.00	<0.0426	127	62.5 - 154
Benzene		1,2,3,4,5	1.73	mg/Kg	5	2.00	<0.0222	86	63.9 - 132
Toluene		1,2,3,4,5	1.79	mg/Kg	5	2.00	0.064	86	64 - 141
Ethylbenzene		1,2,3,4,5	1.91	mg/Kg	5	2.00	<0.0381	96	66.7 - 148
Xylene		1,2,3,4,5	7.08	mg/Kg	5	6.00	1.23	98	63.6 - 145

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
MTBE		1,3,4,5	2.11	mg/Kg	5	2.00	<0.0426	106	62.5 - 154	18	20
Benzene		1,2,3,4,5	1.66	mg/Kg	5	2.00	<0.0222	83	63.9 - 132	4	20
Toluene		1,2,3,4,5	1.78	mg/Kg	5	2.00	0.064	86	64 - 141	1	20
Ethylbenzene		1,2,3,4,5	1.87	mg/Kg	5	2.00	<0.0381	94	66.7 - 148	2	20
Xylene		1,2,3,4,5	7.09	mg/Kg	5	6.00	1.23	98	63.6 - 145	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate			MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			5	1.76	1.70	mg/Kg	5	2	88	85	65.6 - 125
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	5	2.61	2.59	mg/Kg	5	2	130	130	67.9 - 120

Matrix Spike (MS-1) Spiked Sample: 401840

QC Batch: 124016 | Date Analyzed: 2015-08-13 | Analyzed By: MT
Prep Batch: 104852 | QC Preparation: 2015-08-13 | Prepared By: MT

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	Qs	Qs	1,2,3,4	857	mg/Kg	10	20.0	378	2395	25 - 139

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	Qr,Qs	Qr,Qs	1,2,3,4	1080	mg/Kg	10	20.0	378	3510	25 - 139	23	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate				MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	Qsr	Qsr	3	2.81	3.14	mg/Kg	10	2	140	157	76.5 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3	25.3	31.1	mg/Kg	10	2	1265	1555	68.4 - 120

Calibration Standards

Standard (CCV-1)

QC Batch: 123977 | Date Analyzed: 2015-08-13 | Analyzed By: HJ

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1,2,3,4	mg/Kg	500	485	97	80 - 120	2015-08-13

Standard (CCV-2)

QC Batch: 123977 | Date Analyzed: 2015-08-13 | Analyzed By: HJ

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1,2,3,4	mg/Kg	500	482	96	80 - 120	2015-08-13

Standard (ICV-1)

QC Batch: 123997 | Date Analyzed: | Analyzed By:

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/Kg	100	100	100	85 - 115	2015-08-13

Standard (CCV-1)

QC Batch: 123997 | Date Analyzed: | Analyzed By:

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/Kg	100	100	100	85 - 115	2015-08-13

Standard (CCV-1)

QC Batch: 124015 | Date Analyzed: 2015-08-13 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		1,3,4,5	mg/Kg	0.100	0.103	103	80 - 120	2015-08-13
Benzene		1,2,3,4,5	mg/kg	0.100	0.0968	97	80 - 120	2015-08-13
Toluene		1,2,3,4,5	mg/kg	0.100	0.0956	96	80 - 120	2015-08-13
Ethylbenzene		1,2,3,4,5	mg/kg	0.100	0.0956	96	80 - 120	2015-08-13
Xylene		1,2,3,4,5	mg/kg	0.300	0.280	93	80 - 120	2015-08-13

Standard (CCV-2)

QC Batch: 124015 | Date Analyzed: 2015-08-13 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		1,3,4,5	mg/Kg	0.100	0.0960	96	80 - 120	2015-08-13
Benzene		1,2,3,4,5	mg/kg	0.100	0.0888	89	80 - 120	2015-08-13
Toluene		1,2,3,4,5	mg/kg	0.100	0.0875	88	80 - 120	2015-08-13
Ethylbenzene		1,2,3,4,5	mg/kg	0.100	0.0857	86	80 - 120	2015-08-13
Xylene		1,2,3,4,5	mg/kg	0.300	0.252	84	80 - 120	2015-08-13

Standard (CCV-1)

QC Batch: 124016 | Date Analyzed: 2015-08-13 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1,2,3,4	mg/Kg	1.00	0.979	98	80 - 120	2015-08-13

Standard (CCV-2)

QC Batch: 124016 | Date Analyzed: 2015-08-13 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1,2,3,4	mg/Kg	1.00	0.987	99	80 - 120	2015-08-13

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	L-A-B	L2418	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-15-11	Lubbock
5		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

F	Description
U	The analyte is not detected above the SDL

Result Comments

1 Sample dilution due to hydrocarbons.
2 Sample dilution due to hydrocarbons.
3 Sample dilution due to hydrocarbons.
4 Sample dilution due to hydrocarbons.
5 Sample dilution due to hydrocarbons.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 15081026

Page _____ of _____

TraceAnalysis, Inc.

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1 (800) 378-1296

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El Paso, Texas 79922
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BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
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Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Nadel + Gussman/Permian LLC **Phone #:** 575-746-1428

Address: (Street, City, Zip) 2408 - Freeman, Artesia NM, 88210 **Fax #:**

Contact Person: Bill Dougherty (325-998-7107) **E-mail:**

Invoice to: (If different from above)

Project #: 8/5/15 **Project Name:** Aid State #10

Project Location (including state): Artesia, NM **Sampler Signature:** Bill Dougherty

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Chloride Hatton			Turn Around Time if different from standard	Hold
668	1	1			X							X		8/5	10:00 AM	X	X		X																X					
669	2	1			X							X		8/5	10:00 AM	"	"		"																X					
670	3	1			X							X		8/5	10:00 AM	"	"		"																X					
671	4	1			X							X		8/5	10:00 AM	"	"		"																X					
672	5	1			X							X		8/5	10:00 AM	"	"		"																X					

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Lauren Vasquez	Nadel & Gussman	8/5/15	1000AM					INST ____ °C OBS ____ °C COR ____ °C
								INST ____ °C OBS ____ °C COR ____ °C
				Brenda Ward	TA Lubbock	8/10/15	9:15	INST IR-3 °C OBS 17.2 °C COR 17.5 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review WT

REMARKS:
OK to run per Bill 8/10/15

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # FED 8083 8159 9037

ORIGINAL COPY

Summary Report

Bill Dougherty
Nadel & Gussman Permian LLC
601 N. Marienfeld
Suite 508
Midland, TX 79701

Report Date: December 1, 2015

Work Order: 15112036

Project Name: Aide State No. 10
Project Number: HT Discharge

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
408815	N Side Area 2.5'	soil	2015-11-19	10:50	2015-11-20
408816	W Side Bowl Area 1'	soil	2015-11-19	10:55	2015-11-20
408817	E Side Bowl Area 2.5'	soil	2015-11-19	11:00	2015-11-20
408818	S Side Comp 2.5'	soil	2015-11-19	12:15	2015-11-20
408819	Background	soil	2015-11-19	12:00	2015-11-20

	BTEX				TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
408815 - N Side Area 2.5'	<0.0200	<0.0200	<0.0200	<0.0200 Qr	<50.0 B	<4.00
408816 - W Side Bowl Area 1'	<0.0200	<0.0200	<0.0200	<0.0200 Qr	<50.0 B	<4.00
408817 - E Side Bowl Area 2.5'	<0.0200	<0.0200	<0.0200	<0.0200 Qr	<50.0 B	<4.00
408818 - S Side Comp 2.5'	<0.0200	<0.0200	<0.0200	<0.0200 Qr	<50.0 B	<4.00
408819 - Background	<0.0200	<0.0200	<0.0200	<0.0200 Qr	<50.0 B	<4.00

Sample: 408815 - N Side Area 2.5'

Param	Flag	Result	Units	RL
Chloride		**290**	mg/Kg	50

Sample: 408816 - W Side Bowl Area 1'

Param	Flag	Result	Units	RL
Chloride		<250	mg/Kg	50

Sample: 408817 - E Side Bowl Area 2.5'

Param	Flag	Result	Units	RL
Chloride		<250	mg/Kg	50

Sample: 408818 - S Side Comp 2.5'

Param	Flag	Result	Units	RL
Chloride		<250	mg/Kg	50

Sample: 408819 - Background

Param	Flag	Result	Units	RL
Chloride		**290**	mg/Kg	50

TRACEANALYSIS, INC.

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E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Bill Dougherty
Nadel & Gussman Permian LLC
601 N. Marienfeld
Suite 508
Midland, TX, 79701

Report Date: December 1, 2015

Work Order: 15112036

Project Name: Aide State No. 10
Project Number: HT Discharge

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
408815	N Side Area 2.5'	soil	2015-11-19	10:50	2015-11-20
408816	W Side Bowl Area 1'	soil	2015-11-19	10:55	2015-11-20
408817	E Side Bowl Area 2.5'	soil	2015-11-19	11:00	2015-11-20
408818	S Side Comp 2.5'	soil	2015-11-19	12:15	2015-11-20
408819	Background	soil	2015-11-19	12:00	2015-11-20

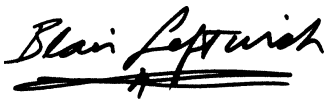
Notes

• **Work Order 15112036:** Email results to: jmartin@naguss.com; bdougherty@naguss.com; spresley@naguss.com; cmwink@mac.com

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Aide State No. 10 were received by TraceAnalysis, Inc. on 2015-11-20 and assigned to work order 15112036. Samples for work order 15112036 were received intact at a temperature of 23.3 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	107086	2015-11-23 at 11:10	126618	2015-11-24 at 08:48
Chloride (Titration)	SM 4500-Cl B	107085	2015-11-23 at 10:15	126548	2015-11-23 at 11:04
TPH DRO	S 8015 D	107193	2015-11-30 at 15:23	126675	2015-11-30 at 15:32
TPH GRO	S 8015 D	107086	2015-11-23 at 11:10	126619	2015-11-25 at 09:10

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15112036 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 408815 - N Side Area 2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Qr,U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.76	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	70 - 130

Sample: 408815 - N Side Area 2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	126548	Date Analyzed:	2015-11-23	Analyzed By:	AM
Prep Batch:	107085	Sample Preparation:	2015-11-23	Prepared By:	AM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**290**	mg/Kg	5	50.0

Sample: 408815 - N Side Area 2.5'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	126675	Date Analyzed:	2015-11-30	Analyzed By:	JL
Prep Batch:	107193	Sample Preparation:	2015-11-30	Prepared By:	JL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	B,Jb	1	<50.0	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		72.7	mg/Kg	1	50.0	145	70 - 130

Sample: 408815 - N Side Area 2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.68	mg/Kg	1	2.00	84	70 - 130

Sample: 408816 - W Side Bowl Area 1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Qr,U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.73	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.69	mg/Kg	1	2.00	84	70 - 130

Sample: 408816 - W Side Bowl Area 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	126548	Date Analyzed:	2015-11-23	Analyzed By:	AM
Prep Batch:	107085	Sample Preparation:	2015-11-23	Prepared By:	AM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<250	mg/Kg	5	50.0

Sample: 408816 - W Side Bowl Area 1'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	126675	Date Analyzed:	2015-11-30	Analyzed By:	JL
Prep Batch:	107193	Sample Preparation:	2015-11-30	Prepared By:	JL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	B,U	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			61.8	mg/Kg	1	50.0	124	70 - 130

Sample: 408816 - W Side Bowl Area 1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	70 - 130

Sample: 408817 - E Side Bowl Area 2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Qr,U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.63	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	70 - 130

Sample: 408817 - E Side Bowl Area 2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	126548	Date Analyzed:	2015-11-23	Analyzed By:	AM
Prep Batch:	107085	Sample Preparation:	2015-11-23	Prepared By:	AM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<250	mg/Kg	5	50.0

Sample: 408817 - E Side Bowl Area 2.5'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	126675	Date Analyzed:	2015-11-30	Analyzed By:	JL
Prep Batch:	107193	Sample Preparation:	2015-11-30	Prepared By:	JL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	B,Jb	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			49.1	mg/Kg	1	50.0	98	70 - 130

Sample: 408817 - E Side Bowl Area 2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.67	mg/Kg	1	2.00	84	70 - 130

Sample: 408818 - S Side Comp 2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Qr,U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.65	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			1.73	mg/Kg	1	2.00	86	70 - 130

Sample: 408818 - S Side Comp 2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	126548	Date Analyzed:	2015-11-23	Analyzed By:	AM
Prep Batch:	107085	Sample Preparation:	2015-11-23	Prepared By:	AM

continued ...

sample 408818 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U		<250	mg/Kg	5	50.0

Sample: 408818 - S Side Comp 2.5'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	126675	Date Analyzed:	2015-11-30	Analyzed By:	JL
Prep Batch:	107193	Sample Preparation:	2015-11-30	Prepared By:	JL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B,Jb	1	<50.0	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		67.2	mg/Kg	1	50.0	134	70 - 130

Sample: 408818 - S Side Comp 2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	70 - 130

Sample: 408819 - Background

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Qr,U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.65	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	70 - 130

Sample: 408819 - Background

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	126548	Date Analyzed:	2015-11-23	Analyzed By:	AM
Prep Batch:	107085	Sample Preparation:	2015-11-23	Prepared By:	AM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**290**	mg/Kg	5	50.0

Sample: 408819 - Background

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	126675	Date Analyzed:	2015-11-30	Analyzed By:	JL
Prep Batch:	107193	Sample Preparation:	2015-11-30	Prepared By:	JL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	B,Jb	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	80.0	mg/Kg	1	50.0	160	70 - 130

Sample: 408819 - Background

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	70 - 130

Method Blanks

Method Blank (1) QC Batch: 126548

QC Batch:	126548	Date Analyzed:	2015-11-23	Analyzed By:	AM
Prep Batch:	107085	QC Preparation:	2015-11-23	Prepared By:	AM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<31.9	mg/Kg	50

Method Blank (1) QC Batch: 126618

QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	QC Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			1.75	mg/Kg	1	2.00	88	70 - 130

Method Blank (1) QC Batch: 126619

QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	QC Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Method Blank (1) QC Batch: 126675

QC Batch:	126675	Date Analyzed:	2015-11-30	Analyzed By:	JL
Prep Batch:	107193	QC Preparation:	2015-11-30	Prepared By:	JL

Parameter	Flag	Cert	MDL Result	Units	RL
DRO	B	B	1	10.8	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			47.4	mg/Kg	1	50.0	95	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 126548 | Date Analyzed: 2015-11-23 | Analyzed By: AM
Prep Batch: 107085 | QC Preparation: 2015-11-23 | Prepared By: AM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2420	mg/Kg	5	2500	<160	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2420	mg/Kg	5	2500	<160	97	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 126618 | Date Analyzed: 2015-11-24 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.89	mg/Kg	1	2.00	<0.00533	94	70 - 130
Toluene		1	1.98	mg/Kg	1	2.00	<0.00645	99	70 - 130
Ethylbenzene		1	2.07	mg/Kg	1	2.00	<0.0116	104	70 - 130
Xylene		1	6.08	mg/Kg	1	6.00	<0.00874	101	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.94	mg/Kg	1	2.00	<0.00533	97	70 - 130	3	20
Toluene		1	2.02	mg/Kg	1	2.00	<0.00645	101	70 - 130	2	20
Ethylbenzene		1	2.10	mg/Kg	1	2.00	<0.0116	105	70 - 130	1	20
Xylene		1	6.25	mg/Kg	1	6.00	<0.00874	104	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.65	1.74	mg/Kg	1	2.00	82	87	70 - 130
4-Bromofluorobenzene (4-BFB)	1.67	1.74	mg/Kg	1	2.00	84	87	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 126619 | Date Analyzed: 2015-11-25 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		[1]	21.4	mg/Kg	1	20.0	<2.32	107	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		[1]	20.3	mg/Kg	1	20.0	<2.32	102	70 - 130	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.98	1.92	mg/Kg	1	2.00	99	96	70 - 130
4-Bromofluorobenzene (4-BFB)	1.81	1.77	mg/Kg	1	2.00	90	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 126675 | Date Analyzed: 2015-11-30 | Analyzed By: JL
Prep Batch: 107193 | QC Preparation: 2015-11-30 | Prepared By: JL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		[1]	269	mg/Kg	1	250	10.8	103	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	269	mg/Kg	1	250	10.8	103	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	52.6	52.4	mg/Kg	1	50.0	105	105	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 408831

QC Batch: 126548 | Date Analyzed: 2015-11-23 | Analyzed By: AM
Prep Batch: 107085 | QC Preparation: 2015-11-23 | Prepared By: AM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2420	mg/Kg	5	2500	<160	97	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2420	mg/Kg	5	2500	<160	97	78.9 - 121	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 408552

QC Batch: 126618 | Date Analyzed: 2015-11-24 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.69	mg/Kg	2	2.00	<0.0107	84	70 - 130
Toluene		1	1.88	mg/Kg	2	2.00	<0.0129	94	70 - 130
Ethylbenzene		1	2.14	mg/Kg	2	2.00	<0.0232	107	70 - 130
Xylene		1	4.46	mg/Kg	2	6.00	<0.0175	74	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.59	mg/Kg	2	2.00	<0.0107	80	70 - 130	6	20
Toluene		1	1.77	mg/Kg	2	2.00	<0.0129	88	70 - 130	6	20
Ethylbenzene		1	2.07	mg/Kg	2	2.00	<0.0232	104	70 - 130	3	20
Xylene	Qr	Qr 1	5.99	mg/Kg	2	6.00	<0.0175	100	70 - 130	29	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	3.43	3.18	mg/Kg	2	4	86	80	70 - 130
4-Bromofluorobenzene (4-BFB)	3.61	3.26	mg/Kg	2	4	90	82	70 - 130

Matrix Spike (MS-1) Spiked Sample: 408552

QC Batch: 126619 | Date Analyzed: 2015-11-25 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		[1]	30.1	mg/Kg	2	20.0	7.79	112	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		[1]	31.3	mg/Kg	2	20.0	7.79	118	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	3.52	3.34	mg/Kg	2	4	88	84	70 - 130
4-Bromofluorobenzene (4-BFB)	3.67	3.56	mg/Kg	2	4	92	89	70 - 130

Matrix Spike (MS-1) Spiked Sample: 408831

QC Batch: 126675 | Date Analyzed: 2015-11-30 | Analyzed By: JL
Prep Batch: 107193 | QC Preparation: 2015-11-30 | Prepared By: JL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		[1]	320	mg/Kg	1	250	8.09	125	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		[1]	313	mg/Kg	1	250	8.09	122	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	56.7	59.1	mg/Kg	1	50	113	118	70 - 130

Calibration Standards

Standard (ICV-1)

QC Batch: 126548 | Date Analyzed: 2015-11-23 | Analyzed By: AM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2015-11-23

Standard (CCV-1)

QC Batch: 126548 | Date Analyzed: 2015-11-23 | Analyzed By: AM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2015-11-23

Standard (CCV-1)

QC Batch: 126618 | Date Analyzed: 2015-11-24 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0938	94	80 - 120	2015-11-24
Toluene		1	mg/kg	0.100	0.101	101	80 - 120	2015-11-24
Ethylbenzene		1	mg/kg	0.100	0.103	103	80 - 120	2015-11-24
Xylene		1	mg/kg	0.300	0.306	102	80 - 120	2015-11-24

Standard (CCV-2)

QC Batch: 126618 | Date Analyzed: 2015-11-24 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0957	96	80 - 120	2015-11-24
Toluene		1	mg/kg	0.100	0.101	101	80 - 120	2015-11-24
Ethylbenzene		1	mg/kg	0.100	0.100	100	80 - 120	2015-11-24
Xylene		1	mg/kg	0.300	0.299	100	80 - 120	2015-11-24

Standard (CCV-3)

QC Batch: 126618 Date Analyzed: 2015-11-24 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0981	98	80 - 120	2015-11-24
Toluene		1	mg/kg	0.100	0.102	102	80 - 120	2015-11-24
Ethylbenzene		1	mg/kg	0.100	0.103	103	80 - 120	2015-11-24
Xylene		1	mg/kg	0.300	0.308	103	80 - 120	2015-11-24

Standard (CCV-1)

QC Batch: 126619 Date Analyzed: 2015-11-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2015-11-25

Standard (CCV-2)

QC Batch: 126619 Date Analyzed: 2015-11-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.923	92	80 - 120	2015-11-25

Standard (CCV-3)

QC Batch: 126619 | Date Analyzed: 2015-11-25 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.978	98	80 - 120	2015-11-25

Standard (CCV-1)

QC Batch: 126675 | Date Analyzed: 2015-11-30 | Analyzed By: JL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	266	106	80 - 120	2015-11-30

Standard (CCV-2)

QC Batch: 126675 | Date Analyzed: 2015-11-30 | Analyzed By: JL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	254	102	80 - 120	2015-11-30

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 15112036

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Nadel & Gussman Permian, LLC
Phone #: 432-682-4429
Address: (Street, City, Zip) Midland TX 79701
Fax #:
Contact Person: Bill Doughtery
E-mail: BDoughtery@nagus.com
Invoice to: (If different from above) Aide State No. 10
Project #: HT Discharge
Project Name:
Project Location (including state):
Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
408815	N side area 2.5'	1			X							X		11/19/15	1050				BTEX, TPH(DRO/GRO), Soil Cl																				
408816	W side Boarder 1'	1			X							X		11/19/15	1055																										
408817	E side Boarder 2.5'	1			X							X		11/19/15	1100				Email results to:																				
408818	S side Comp. 2.5	1			X							X		11/19/15	1215				BDoughtery@nagus.com																				
408819	Background	1			X							X		11/19/15	1200				Cmartin@mac.com																				

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
[signature]		11/20/15	1244	[signature]	TA	11-20-15	12:44	INST 1R OBS 23.3 °C COR 23.2 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: Std,

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # carry in

ORIGINAL COPY

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 August 8, 2011

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

Release Notification and Corrective Action

nAB1521727876 155615 **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company: Nadel and Gussman Permian, LLC	Contact: Bill Dougherty
Address: 601 N. Marienfeld, Suite 508, Midland, TX 79707	Telephone No.325-998-7107
Facility Name: Aid State #10	Facility Type: Oil Well

Surface Owner State of NM	Mineral Owner	API No. 30-015-38462

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	13	17 S	28 E	1650	NORTH	2310	EAST	EDDY

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release Oil and Water	Volume of Release N/A *	Volume Recovered 71.52 BBLS
Source of Release Manway Gasket Leak	Date and Hour of Occurrence 7/30/2015 Early Hours	Date and Hour of Discovery 7/30/2015 1:00 PM MST
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Heather Patterson with the OCD	
By Whom? Bill Dougherty	Date and Hour 7/30/2015 2:00 PM MST	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 4 2015
RECEIVED

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Manway gasket was leaking on the heater treater.
A Double R Vacuum truck arrived on location at 5:15 PM. Sucked up all fluid inside the berm. Bill Dougherty sprayed micro blaze on the vegetation on 7/31/2015.

Describe Area Affected and Cleanup Action Taken.*

Approx. 5.52 bbls of oil and 66 bbls of water were released. A majority of the spill was contained within the berm, except for some oil spray that was carried by the wind.
A double R vacuum truck sucked up all oil inside the berm. Micro Blaze was sprayed onto the vegetation.

We will take a sample of the soil inside and outside of the berm and send the results to Heather Patterson of the OCD. Once we have the sample results a final report will be submitted.

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: Sarah Presley

Printed Name: Sarah Presley

Title: Regulatory Analyst

E-mail Address:spresley@naguss.com

Date: 8/4/2015 Phone: 432-682-4429

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 8/5/15 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 11/1/15

2RP-3185

* Attach Additional Sheets If Necessary

Patterson, Heather, EMNRD

From: Sarah Presley <spresley@naguss.com>
Sent: Tuesday, August 04, 2015 3:58 PM
To: Patterson, Heather, EMNRD
Subject: RE: Aid State #10
Attachments: Aid State #10.C-141.08 04 2015.pdf

Heather,

I have attached the C-141 for this spill. Please let me know if you would rather me send in the hard copy.

Thank you for your help!

Sarah Presley
Nadel and Gussman Permian, L.L.C.
601 N. Marienfeld, Suite 508
Midland, TX 79701
Ph: 432-682-4429
Fax: 432-682-4325
spresley@naguss.com

From: Bill Dougherty
Sent: Thursday, July 30, 2015 7:31 PM
To: 'heather.patterson@state.nm.us'
Cc: Bill Dougherty; Joel Martin; Mike McCurdy; Sarah Presley; Jason Hammons; Raven Vasquez
Subject: Aid State #10

Ms. Patterson these are the pictures from the spill on Aid State #10 if you will allow me to I would like to spray micro blaze on the vegetation that has the over spray. I have a sample kit coming from Trace Analysis to collect the samples for testing. I will give you a call first thing in the morning.

Thanks.
Bill Dougherty
Nadel and Gussman
N.M. Field Superintendent
325-998-7107

ENVIRONMENTAL RELEASE NOTIFICATION

Call-In Sheet

Date: 7/30/15 Notice received by: HNP

Nadel & Gussman / Aid State #10

Name of Company/Phone # Facility Name

30-015-38462 (maybe) 13 17S 28E 7/30/15 (or late 7/29/15)

API # Sec. Township Range Date of Occurrence

7/30/15 2:00pm oil & PW unkn unkn

Date/Hour of Discovery Type of Release Volume of Release Volume Recovered

Briefly Describe Cause of Problem and action taken: Heater Treater Manway Gasket blew. Mostly in lined containment some overspray on pasture (no ponding)

Bill Dougherty / Nadel & Gussman

Notice given by: Name/ Company *Date/Hour Immediate Notice given*

Date C-141 received: 8/4/15 *2RP-* 3185

****

FLARE NOTIFICATION

Call-In Sheet

Date: _____ Notice received by: _____

_____ _____

Name of Company/Phone # Facility Name

_____ _____ _____

Date of Occurrence Date/Hour of Flare Type of Release

_____ _____

Flared MCF Volume Volume Recovered

Briefly Describe Cause of Problem and action taken: _____

_____

_____

_____ _____

Notice given by: Name/ Company *Date/Hour Immediate Notice given*

Date C-141 received: _____ *2RP-* _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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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 August 8, 2011

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: Nadel and Gussman Permian, LLC	Contact: Bill Dougherty
Address: 601 N. Marienfeld, Suite 508, Midland, TX 79707	Telephone No.325-998-7107
Facility Name: Aid State #10	Facility Type: Oil Well

Surface Owner State of NM	Mineral Owner	API No. **30-015-38462**

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Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
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Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release Oil and Water	Volume of Release N/A	Volume Recovered 71.52 BBLS
Source of Release Manway Gasket Leak	Date and Hour of Occurrence 7/30/2015 Early Hours	Date and Hour of Discovery 7/30/2015 1:00 PM MST
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Heather Patterson with the OCD	
By Whom? Bill Dougherty	Date and Hour 7/30/2015 2:00 PM MST	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The manway gasket was leaking on the heater treater. Double R responded to call out for a vacuum truck to suck up the liquid discharge of hydrocarbon and produced water contained within the bermed area surrounding the heat treater. However, high winds prevailed, lifting the discharged particles of this mixture into an airborne situation, transporting them approximately 120' west of the HT and 150' x 150' north and south, respectively. Microblaze was initially used to arrest the deterioration of the impacted plant life but it was determined the salt concentrations were more responsible for killing off the vegetation than the hydrocarbon component sprayed onto the leaves. Therefore the application of Microblaze was discontinued and excavation was determined to be necessary.

Describe Area Affected and Cleanup Action Taken.*
A majority of the spill was contained within the berm. Approx. 6 bbls of oil and 66 bbls of produced water were released. Further investigation revealed an impoundment area had formed approximately 120' down gradient and west of the heater treater. Following a series of sampling events to delineate the contaminant areas, approximately 110 yards of contaminated soil was removed and transported to R360 for disposal. New samples were obtained to verify the area was remediated to NMOCD regulatory standards (see enclosed). NGP obtained clearance from the NMOCD to begin backfilling the excavated area. A total of 9 loads of clean fill obtained from a local caliche pit were hauled to the excavated site, returning the footprint area to its previous topographical elevation commensurate with the surrounding terrain. Seeding was done pursuant to Bureau of Land Management (BLM) Seed Mix No. 2. The New Mexico State Land Office was contacted prior to ordering the seed mixture. .

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: Bill Dougherty	OIL CONSERVATION DIVISION	
Printed Name: Bill Dougherty	Approved by Environmental Specialist:	
Title: NM Field Superintendent	Approval Date:	Expiration Date:
E-mail Address:spresley@naguss.com	Conditions of Approval:	Attached ☐
Date: 1/5/2016 Phone: 432-682-4429		