



Electronic Correspondence

November 6, 2015

Mr. Mike Bratcher
State of New Mexico
Oil Conservation Division
811 S. 1st Street
Artesia, NM 88210
mike.bratcher@state.nm.us

Re: Corrective Action Plan- 2RP-3333
Memorial Production Operating, NSLU #003
Legal: Unit J, Sec 19, T16S R31E, Eddy County, NM
Latitude/Longitude: 32.902993/ -103.893797
Etech Proj. Number: 416-6628-000
Depth to Groundwater: >300 feet
Release Type: Produced Water

Contaminants of Concern (COC's)	Threshold Levels
Chlorides	1000 mg/kg
SAR	<12

Dear Mike:

Etech Environmental & Safety Solutions, Inc. (Etech) is submitting the following corrective action plan on the aforementioned site for your review and approval.

Background

On October 12, 2015 a leak was discovered and reported from the NSLU #3 injection line. The steel above ground transfer line formed a hole from corrosion causing the release of approximately fifty barrels (bbl.) of produced water into the pasture. No fluid was able to be recovered. An assessment of the site was conducted on October 19, 2015 by Etech. The release flowed north from the transfer line for approximately 60 feet and was approximately 15 feet wide. The impacted area affected approximately 900 square feet of surface area.

An initial sampling was conducted of the impacted area on October 19, 2015. Samples were collected from three (3) locations of the impacted area. Note: All of the samples were collected from low areas to present a "worse case" basis. The samples were analyzed for TPH and Chlorides. The results of analyses determined that TPH values were non-detect. Chloride levels ranged from 1,470 mg/kg to 28,160 mg/kg. Due to the site not being delineated to below 250 mg/kg on initial assessment, the site was further delineated on November 4, 2015. Samples were still above the 250 mg/kg threshold, so an air rotary rig was brought in to further delineate site. Due to the location of the above ground line, the rig could not safely cross the line to delineate AH 2 and AH 3, so AH 1 was delineated to achieve regulatory requirements. Chloride levels were below 250 mg/kg at 23-24 feet bg. A copy of the assessment sheet and the analytical results are attached.

Scope of Work

The corrective action for this site will be to treat the top three feet of impacted soil with DeSalt Plus to lower the chloride and sodium levels in the root zone. We believe this to be the most practicable way to approach this site, due to the depth to groundwater in the area being greater than 300 feet and the soil's sandy content. Therefore, the corrective action goals for this project will be 1,000 mg/kg of chlorides. The levels of TPH found from the assessment are below action levels for this project. The particulars for remediation will involve the actions summarized as follows:

1. Placement of a one-call for utility location.
2. The first eighteen inches of soil will be mechanically tilled to break up the soil. The impacted area will then be treated with a mixture of DeSalt and fresh water. The impacted area will then be blended again.
3. Once screening determines the remediation objectives have been reached, confirmation samples will be collected from the remediation to confirm that remediation goals have been reached.
4. If the results of analysis indicate that the chloride levels are above regulatory threshold levels, additional treatment will be performed until the remediation objectives are met.
5. The site will be seeded with BLM #2. Seeding will take place when the seasonal conditions are conducive to maximizing the potential for seed germination. Actual seeding will be accomplished by broadcast or drilling; whichever is the most practical for the site.

Notifications and Special Conditions

1. The OCD and BLM will be notified prior to the commencement of on-site operations.
2. The OCD and BLM will be notified prior to each sampling event to allow the opportunity to witness the sampling events. Splits will be made available if requested.
3. Prior to seeding, the OCD and BLM will be notified when the site is closed for final inspection.
4. A final report documenting the closure of the site will be submitted along with a final C-141.

Thank you for your assistance on this matter. Should you have any questions, require additional information, or have any additional stipulations for this site, please me at (432) 563-2200 (office) or via email at tim@etechenv.com.

Respectfully:



Tim McMinn

cc: Heather Patterson, NMOCD Division 2 Office
Dara Glass, BLM Carlsbad District Office

Attachment A
Initial C-141

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

Form C-141
Revised August 8, 2011

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

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

Release Notification and Corrective Action

NAB1528832613

303900

OPERATOR

Initial Report Final Report

Name of Company <u>Memorial Production Operating LLC</u>	Contact <u>Heather Dolphin</u>
Address <u>500 Dallas Street, Suite 1800 Houston TX 77002</u>	Telephone No. <u>832-797-1334</u>
Facility Name <u>North Square Lake Unit #003 Injection Line</u>	Facility Type <u>Well</u>
Surface Owner	Mineral Owner
API No. <u>30-015-20183</u>	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	19	16S	31E					Eddy

Latitude 32° 54' 11"N Longitude -103° 53' 38"W

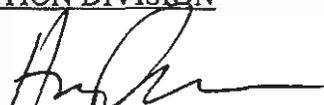
NATURE OF RELEASE

Type of Release <u>Produced Water</u>	Volume of Release <u>50bbl</u>	Volume Recovered <u>0bbl</u>
Source of Release <u>Injection Line</u>	Date and Hour of Occurrence <u>10/12/15</u>	Date and Hour of Discovery <u>4:30 pm</u>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <u>Heather Patterson, Mike Patterson; OCD / Art Arias, Shelly Tucker; BLM</u>	
By Whom? <u>Heather Dolphin</u>	Date and Hour <u>10/12/15 4:53pm</u>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <u>n/a</u>	
If a Watercourse was Impacted, Describe Fully.* <u>n/a</u>		
Describe Cause of Problem and Remedial Action Taken.* <u>Steel injection line developed a hole due to corrosion. Replaced line.</u>		
Describe Area Affected and Cleanup Action Taken.* <u>60' x 14' off locatlon. Will clean-up per OCD/ BLM authorized officer instructions.</u>		

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 14 2015
RECEIVED

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.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: <u>Heather Dolphin</u>	Approval Date: <u>10/14/15</u>	Expiration Date: <u>N/A</u>
Title: <u>Sr. Regulatory Specialist</u>	Conditions of Approval:	
E-mail Address: <u>heather.dolphin@memorialrd.com</u>	Attached <input type="checkbox"/>	
Date: <u>10/5/15</u> Phone: <u>832-797-1334</u>	Remediation per O.C.D. Rules & Guidelines	

SUBMIT REMEDIATION PROPOSAL NO. 2RP-3333
LATER THAN: 11/15/15

* Attach Additional Sheets If Necessary

Attachment B
Annotated Aerial Imagery



Assessment Results		
Sample I.D.	Depth (ft.)	Chlorides (mg/kg)*
AH 1	12-13	2110
AH 1	13-14	2260
AH 1	14-15	4320
AH 1	15-16	1830
AH 1	16-17	2110
AH 1	17-18	2260
AH 1	18-19	1360
AH 1	19-20	820
AH 1	20-21	2110
AH 1	21-22	900
AH 1	22-23	ND
AH 1	23-24	92

**Attachment C
Photograph Log**

Photo No:
1.

Direction Taken:
East

Description:
View of the impacted area.



Photo No:
2.

Direction Taken:
West

Description:
View of the impacted area.





**Attachment D
Analytical Results**

Extended Diesel Range Organic Hydrocarbons Analysis Report

siteLAB® EDRO C10-C40 Aromatics in Soil, Sediment & Water

Client: Memorial
Address:

Phone: 713-588-8300
Contact: Chris Gafford

Operator: BRITNEY BEATY
Signature:

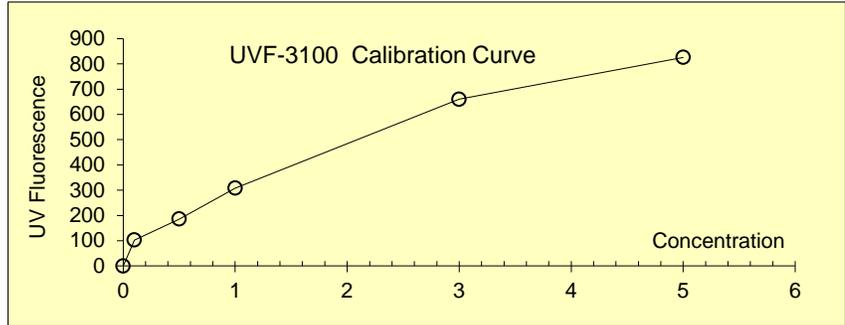
Project Name: NSLU #3
Job #: 416-6628
File #: 1
Matrix: SOIL

Date Collected: 10/19/2015
Date Received: 10/20/2015
Date Extracted: 10/21/2015
Date Analyzed: 10/21/2015
Date Reported: 10/21/2015

Date: _____ Time: _____

Standard Concentration	UVF-3100 Calibration Raw Fluorescence
0	0
0.1	102.7
0.5	185.7
1.0	307.9
3.0	660.3
5.0	826.0

siteLAB
Calibration Product #: CAL-042
Units (ppm or mg/Kg): ppm



UVF Run#:	Sample ID & Description	UVF Raw Fluorescence	Test Sample Concentration (ppm)	Dilution Factor	Test Result:
10	AH 1 3'	-9.57	-0.009	1,000	Concentration... Too Low (ND)
11	AH 1 5'	-9.32	-0.009	1,000	Concentration... Too Low (ND)
12	AH 1 7'	-9.69	-0.009	1,000	Concentration... Too Low (ND)
13	AH 1 8'	-8.77	-0.009	1,000	Concentration... Too Low (ND)
14	AH 1 10'	-4.15	-0.004	1,000	Concentration... Too Low (ND)
15	AH 2 6"	-9.06	-0.009	1,000	Concentration... Too Low (ND)
16	AH 2 1.5"	-8.00	-0.008	1,000	Concentration... Too Low (ND)
17	AH 2 3'	-8.90	-0.009	1,000	Concentration... Too Low (ND)
18	AH 2 5'	-8.53	-0.008	1,000	Concentration... Too Low (ND)
19	AH 2 7.5'	-10.56	-0.01	1,000	Concentration... Too Low (ND)
20	AH 3 0"	17.22	0.017	1,000	Concentration... Too Low (ND)
21	AH 3 6"	-9.09	-0.009	1,000	Concentration... Too Low (ND)
22	AH 3 1.5'	-9.36	-0.009	1,000	Concentration... Too Low (ND)
23	AH 3 3'	-9.03	-0.009	1,000	Concentration... Too Low (ND)
24	AH 3 4'	-9.23	-0.009	1,000	Concentration... Too Low (ND)
16		1.00	1	1	1.0 ppm
17		1.00	1	1	1.0 ppm
18		1.00	1	1	1.0 ppm
19		1.00	1	1	1.0 ppm
20		1.00	1	1	1.0 ppm

Comments: Results reported in wet weight.

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**



Analytical Report

Prepared for:

Tim McMinn

E Tech Environmental & Safety Solutions, Inc.

13000 West County Road 100

Odessa, TX 79765

Project: NSLU #3 Inj Line

Project Number: 416-6628

Location: Memorial

Lab Order Number: 5K06010



NELAP/TCEQ # T104704156-13-3

Report Date: 11/17/15

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH 1 10-11	5K06010-01	Soil	11/04/15 00:00	11-06-2015 15:00
AH 1 11-12	5K06010-02	Soil	11/04/15 00:00	11-06-2015 15:00
AH 1 12-13	5K06010-03	Soil	11/04/15 00:00	11-06-2015 15:00
AH 2 8-9	5K06010-04	Soil	11/04/15 00:00	11-06-2015 15:00
AH 2 9-10	5K06010-05	Soil	11/04/15 00:00	11-06-2015 15:00
AH 2 10-11	5K06010-06	Soil	11/04/15 00:00	11-06-2015 15:00
AH 2 11-12	5K06010-07	Soil	11/04/15 00:00	11-06-2015 15:00
AH 2 12-13	5K06010-08	Soil	11/04/15 00:00	11-06-2015 15:00

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 1 10-11
5K06010-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	4080	26.6	mg/kg dry	25	P5K1020	11/10/15	11/11/15	EPA 300.0	
% Moisture	6.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 1 11-12
5K06010-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	3430	26.6	mg/kg dry	25	P5K1020	11/10/15	11/11/15	EPA 300.0	
% Moisture	6.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 1 12-13
5K06010-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	2410	10.4	mg/kg dry	10	P5K1020	11/10/15	11/11/15	EPA 300.0	
% Moisture	4.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 2 8-9
5K06010-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	1180	5.26	mg/kg dry	5	P5K1020	11/10/15	11/11/15	EPA 300.0	
% Moisture	5.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 2 9-10
5K06010-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	1710	5.21	mg/kg dry	5	P5K1206	11/12/15	11/12/15	EPA 300.0	
% Moisture	4.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 2 10-11
5K06010-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	1510	5.21	mg/kg dry	5	P5K1206	11/12/15	11/12/15	EPA 300.0	
% Moisture	4.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 2 11-12
5K06010-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	3270	27.5	mg/kg dry	25	P5K1206	11/12/15	11/12/15	EPA 300.0	
% Moisture	9.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH 2 12-13
5K06010-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	2980	10.6	mg/kg dry	10	P5K1206	11/12/15	11/12/15	EPA 300.0	
% Moisture	6.0	0.1	%	1	P5K1001	11/10/15	11/10/15	% calculation	

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P5K1001 - % Solids										
Blank (P5K1001-BLK1) Prepared & Analyzed: 11/10/15										
% Moisture	ND	0.1	%							
Duplicate (P5K1001-DUP1) Source: 5K06010-01 Prepared & Analyzed: 11/10/15										
% Moisture	7.0	0.1	%		6.0			15.4	20	
Duplicate (P5K1001-DUP2) Source: 5K06012-11 Prepared & Analyzed: 11/10/15										
% Moisture	8.0	0.1	%		7.0			13.3	20	
Duplicate (P5K1001-DUP3) Source: 5K06013-03 Prepared & Analyzed: 11/10/15										
% Moisture	4.0	0.1	%		4.0			0.00	20	
Batch P5K1020 - *** DEFAULT PREP ***										
Blank (P5K1020-BLK1) Prepared & Analyzed: 11/10/15										
Chloride	ND	1.00	mg/kg wet							
LCS (P5K1020-BS1) Prepared & Analyzed: 11/10/15										
Chloride	93.1	1.00	mg/kg wet	100		93.1	80-120			
LCS Dup (P5K1020-BSD1) Prepared & Analyzed: 11/10/15										
Chloride	94.8	1.00	mg/kg wet	100		94.8	80-120	1.77	20	
Duplicate (P5K1020-DUP1) Source: 5K06008-03 Prepared: 11/10/15 Analyzed: 11/11/15										
Chloride	75.4	1.14	mg/kg dry		75.9			0.676	20	
Duplicate (P5K1020-DUP2) Source: 5K05003-01 Prepared: 11/10/15 Analyzed: 11/11/15										
Chloride	41.2	1.18	mg/kg dry		41.0			0.486	20	

E Tech Environmental & Safety Solutions, Inc.
 13000 West County Road 100
 Odessa TX, 79765

Project: NSLU #3 Inj Line
 Project Number: 416-6628
 Project Manager: Tim McMinn

Fax: (432) 563-2213

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P5K1020 - *** DEFAULT PREP ***										
Matrix Spike (P5K1020-MS1)		Source: 5K06008-03			Prepared: 11/10/15		Analyzed: 11/11/15			
Chloride	201	1.14	mg/kg dry	142	75.9	88.1	80-120			
Batch P5K1206 - *** DEFAULT PREP ***										
Blank (P5K1206-BLK1)		Prepared & Analyzed: 11/12/15								
Chloride	ND	1.00	mg/kg wet							
LCS (P5K1206-BS1)		Prepared & Analyzed: 11/12/15								
Chloride	94.4	1.00	mg/kg wet	100		94.4	80-120			
LCS Dup (P5K1206-BSD1)		Prepared & Analyzed: 11/12/15								
Chloride	94.5	1.00	mg/kg wet	100		94.5	80-120	0.138	20	
Duplicate (P5K1206-DUP1)		Source: 5K06010-05			Prepared & Analyzed: 11/12/15					
Chloride	1720	5.21	mg/kg dry		1710			0.328	20	
Duplicate (P5K1206-DUP2)		Source: 5K06012-07			Prepared & Analyzed: 11/12/15					
Chloride	11600	53.8	mg/kg dry		11700			0.775	20	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3 Inj Line
Project Number: 416-6628
Project Manager: Tim McMinn

Fax: (432) 563-2213

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date: 11/17/2015

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**



Analytical Report

Prepared for:

Tim McMinn

E Tech Environmental & Safety Solutions, Inc.

13000 West County Road 100

Odessa, TX 79765

Project: NSLU #3

Project Number: 416-6628-000

Location: Memorial

Lab Order Number: 5L18004



NELAP/TCEQ # T104704156-13-3

Report Date: 12/22/15

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3
Project Number: 416-6628-000
Project Manager: Tim McMinn

Fax: (432) 563-2213

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH1 23-24'	5L18004-01	Soil	12/09/15 00:00	12-18-2015 11:35

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: NSLU #3
Project Number: 416-6628-000
Project Manager: Tim McMinn

Fax: (432) 563-2213

AH1 23-24'
5L18004-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	92.0	1.03	mg/kg dry	1	P5L2201	12/22/15	12/22/15	EPA 300.0	
% Moisture	3.0	0.1	%	1	P5L1806	12/18/15	12/18/15	% calculation	

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P5L1806 - *** DEFAULT PREP ***										
Blank (P5L1806-BLK1) Prepared & Analyzed: 12/18/15										
% Moisture	ND	0.1	%							
Duplicate (P5L1806-DUP1) Source: 5L18003-01 Prepared & Analyzed: 12/18/15										
% Moisture	5.0	0.1	%		6.0			18.2	20	
Batch P5L2201 - *** DEFAULT PREP ***										
Blank (P5L2201-BLK1) Prepared & Analyzed: 12/22/15										
Chloride	ND	1.00	mg/kg wet							
LCS (P5L2201-BS1) Prepared & Analyzed: 12/22/15										
Chloride	228	1.00	mg/kg wet	200		114	80-120			
LCS Dup (P5L2201-BSD1) Prepared & Analyzed: 12/22/15										
Chloride	231	1.00	mg/kg wet	200		115	80-120	1.14	20	
Duplicate (P5L2201-DUP1) Source: 5L18003-01 Prepared & Analyzed: 12/22/15										
Chloride	ND	1.06	mg/kg dry		ND				20	
Duplicate (P5L2201-DUP2) Source: 5L16001-17 Prepared & Analyzed: 12/22/15										
Chloride	9780	29.8	mg/kg dry		9850			0.695	20	
Matrix Spike (P5L2201-MS1) Source: 5L18003-01 Prepared & Analyzed: 12/22/15										
Chloride	362	1.06	mg/kg dry	426	ND	85.1	80-120			

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Project: NSLU #3
Project Number: 416-6628-000
Project Manager: Tim McMinn

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Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date:

12/22/2015

Brent Barron, Laboratory Director/Technical Director

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