

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 | 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.

7	Release Notification and Corrective Action											
	NAB1528832613 3039900					OPERA?	ror	$\overline{\mathbf{V}}$	Initial Repo	rt		Final Report
The same of the sa				perating LLC			ather Dolphin					
Address 50	0 Dallas S	treet, Suite 1	800 Hous	ston TX 77002		Telephone No. 832-797-1334						
Facility Na	ne North	Square Lake	Unit #00:	3 Injection Line		Facility Type Well						
Surface Ow	ner			Mineral O	wner			AP	I No. 30-01	15-201	183	
P1 - T1 -		Parket Parket on	, 1 <u>120-201</u>	LOCA	TION	OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/West L	ine Count	у		
J	19	168	31E						Ed	ldy		8
	Latitude 32° 54' 11"N Longitude -103° 53' 38"W NATURE OF RELEASE											
Type of Rele	ase Produc	ed Water		NAI	UKE		Release 50bbl	Volu	me Recovere	ed Ob	- lde	
Source of Re				6- 20-2 - 15 X		Date and H	our of Occurrence					4:30 pm
Was Immedia		Given?				If YES, To					15	A. 30
			Yes 📋	No Not Re	quired		atterson , Mike I		CD / Art Aria	as, Sh	elly	Tucker; BLM
By Whom? I Was a Water	teamer Do	pipnin					our 10/12/15 4 lume Impacting t					
was a water	course Reac		Yes 🔽	No		n/a	iume impacting t	ne watercour	se.			
If a Watercou	irse was Imp	pacted, Descri	be Fully.*			1			<u> </u>			
n/a									3 3			
						-			NM OIL	€O _{Ar} ,		
Describe Cau Steel injection				Taken.* orrosion, Replac	ed line.				OCT	14 DIS	ERI TRIC	VATION
Describe Area									RECEN	10		
				BLM authorized	5/A 2 4 /5	* mar +=3		me palamen er generale (* *		ΚQ		t alta transport
regulations al public health should their o	l operators a or the envir perations ha ment. In ac	are required to onment. The ove failed to a ddition, NMO	report and acceptance dequately accept	is true and complidor file certain re cof a C-141 report investigate and re ance of a C-141 r	lease no rt by the mediate	ntifications and NMOCD in a contamination	d perform correct tarked as "Final Roon that pose a three the operator of r	tive actions for eport" does no eat to ground to esponsibility	r releases what relieve the water, surface for compliant	operate water water	ay end or of r, hun h any	danger liability nan health
Signature:		50		<u>L.</u>			OIL CONS		ON DIVIS	ION	Ī	
Printed Name	Heather	Dolphin			A	Approved by	Environmental Sp	ecialist:	126/1	2		}
Title: Sr. Re	gulatory S _l	pecialist			A	Approval Date	: 1014	5 Expira	tion Date;	414	A	
E-mail Addres	ss: heather	.dolphin@m	emorialrd	.com	c	Conditions of	Approval:	100 To 10	Attac	hed [_	
Date: 10/5/15				832-797-1334	्य	mediation	Approval: per O.C.D. R	ules & Gu	Idelines		- 61	
Attach Addit	ional Shee	ts If Necessa	гу		50	BMIT REN	"=5"",	5115		2	RP.	3333

Attachment B Annotated Aerial Imagery



Delineation & Assessment Report ©

Lease Name:

NSLU #3 Injection Line 10/12/15

Case No.:

416-6628



Assessment Results Sample Depth Chlorides I.D. (ft.) (mg/kg)* 15,490 AH 1 3 AH 1 2,930 5 6,440 7 AH 1 4,170 AH 1 8 10 5,150 AH 1 10-11 4,080 AH 1 11-12 3,430 12-13 2,410 AH 1 AH 2 0.5 28,160 AH 2 1.5 4,170 3 1,860 AH 2 AH 2 5 5,150 2,010 AH 2 7.5 8-9 1,180 1,710 AH 2 9-10 AH 2 10-11 1,510 11-12 3,270 AH 2 12-13 2,980 AH 2 4,320 AH 3 0 AH 3 0.5 7,340 AH 3 1.5 6,450 5,470 3 1,470

TPH*- Non Detect for all samples

4

^{*}In house analytical



Geoprobe Data®

Lease Name:

NSLU #3 Injection Line 10/12/15

Case No.: 416-6628

Date Assessed:

December 9, 2015



Asses	sment 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.



Photograph Log Date Taken: September 22, 2015

Photo No:

3.

Direction Taken:

North

Description: View of the impacted area.



Photo No: 4.

Direction Taken: South

Description:

View of the impacted area.



Attachment D Analytical Results

Quantab Chloride Test Strip Analysis Sheet

Date: 10/21/2015 **Client:** Memorial

Site: NSLU #3 Injection Line Project Number: 416-6628-000

Technican: BB Strip Lot Number(s):

Sample ID	Titrator Range	Dilution	Test Strip Result (ppm)	Final Result (ppm)	Notations
AH 1 3'		10	1549.0	15490.00	
AH 1 5'		10	293.0	2930.00	
AH 1 7'		10	644.0	6440.00	
AH 1 8'		10	417.0	4170.00	
AH 1 10'		10	515.0	5150.00	
AH 2 6"		10	2816.0	28160.00	
AH 2 1.5"		10	417.0	4170.00	
AH 2 3'		10	186.0	1860.00	
AH 2 5'		10	515.0	5150.00	
AH 2 7.5'		10	201.0	2010.00	
AH 3 0"		10	432.0	4320.00	
AH 3 6"		10	734.0	7340.00	
AH 3 1.5'		10	645.0	6450.00	
AH 3 3'		10	547.0	5470.00	
AH 3 4'		10	147.0	1470.00	
		10			
		10			
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		10			

Titrator Range: A= 30-600 B=300-6000 ppm

Soil Sample Volume: 10 Grams Distilled Water Volume = 100 ml

Extended Diesel Range Organic Hydrocarbons Analysis Report

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

Client: Memorial Project Name: NSLU #3
Address: Job #: 416-6628

File #: 1 Matrix: SOIL

Phone: 713-588-8300 Date Collected: 10/19/2015
Contact: Chris Gafford Date Received: 10/20/2015
Date Extracted: 10/21/2015

Operator: BRITNEY BEATY

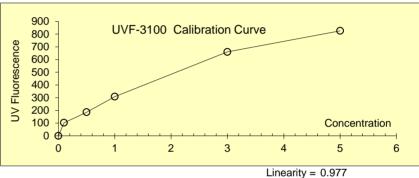
Signature:

Date Analyzed: 10/21/2015

Date Reported: 10/21/2015

Date: Time:	
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Standard	UVF-3100 Calibration
Concentration	Raw Fluorescence
0	0
0.1	102.7
0.5	185.7
1.0	307.9
3.0	660.3
5.0	826.0
site LAB	
Calibration Product #:	CAL-042
Units (ppm or mg/Kg):	ppm



UVF	Sample ID &	UVF Raw	Test Sample	Dilution	Test Result:
Run#:	Description	Fluorescence	Concentration	Factor	
			(ppm)		
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 weigh	t.		1	

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.

Project: NSLU #3 Inj Line

13000 West County Road 100

Project Number: 416-6628

Odessa TX, 79765

Project Manager: Tim McMinn

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

Fax: (432) 563-2213

13000 West County Road 100Project Number: 416-6628Odessa TX, 79765Project Manager: Tim McMinn

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

								l
	Reporting							
Analyte Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

13000 West County Road 100Project Number: 416-6628Odessa TX, 79765Project Manager: Tim McMinn

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

13000 West County Road 100 Project Number: 416-6628
Odessa TX, 79765 Project Manager: Tim McMinn

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

13000 West County Road 100 Project Number: 416-6628
Odessa TX, 79765 Project Manager: Tim McMinn

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

13000 West County Road 100Project Number: 416-6628Odessa TX, 79765Project Manager: Tim McMinn

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

13000 West County Road 100Project Number: 416-6628Odessa TX, 79765Project Manager: Tim McMinn

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

									1
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

13000 West County Road 100 Project Number: 416-6628
Odessa TX, 79765 Project Manager: Tim McMinn

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

13000 West County Road 100 Project Number: 416-6628
Odessa TX, 79765 Project Manager: Tim McMinn

AH 2 12-13

5K06010-08 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

E Tech Environmental & Safety Solutions, Inc.

Project: NSLU #3 Inj Line

13000 West County Road 100

Project Number: 416-6628

Odessa TX, 79765

Project Manager: Tim McMinn

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

Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Result	Lillit	Onts	Level	Result	70KEC	Lillits	KI D	Lillit	Notes
			Prepared &	Analyzed:	11/10/15				
ND	0.1	%							
Sour	ce: 5K06010-	01	Prepared &	Analyzed:	11/10/15				
7.0	0.1	%		6.0			15.4	20	
Sour	ce: 5K06012-	11	Prepared &	Analyzed:	11/10/15				
8.0	0.1	%		7.0			13.3	20	
Sour	ce: 5K06013-	03	Prepared &	: Analyzed:	11/10/15				
4.0	0.1	%		4.0			0.00	20	
			Prepared &	: Analyzed:	11/10/15				
ND	1.00	mg/kg wet	1						
			Prepared &	Analyzed:	11/10/15				
93.1	1.00	mg/kg wet	100		93.1	80-120			
			Prepared &	: Analyzed:	11/10/15				
94.8	1.00	mg/kg wet	100		94.8	80-120	1.77	20	
Sour	re: 5K06008-	.03	Prenared: 1	1/10/15 A	nalvzed: 11	/11/15			
75.4			1 repared. 1	75.9	naryzea. 11	,11,13	0.676	20	
£	no. 51/05002	Δ1	Drangrad: 1	1/10/15 4	nalwzed: 11	/11/15			
		-	1 repared. 1		naiyzeu. H	/11/13	0.486	20	
• • • • • • • • • • • • • • • • • • •	ND Source 7.0 Source 8.0 Source 4.0 ND 93.1 94.8 Source 75.4	ND 0.1 Source: 5K06010- 7.0 0.1 Source: 5K06012- 8.0 0.1 Source: 5K06013- 4.0 0.1 ND 1.00 93.1 1.00 94.8 1.00 Source: 5K06008- 75.4 1.14 Source: 5K05003-	ND 0.1 % Source: 5K06010-01 7.0 0.1 % Source: 5K06012-11 8.0 0.1 % Source: 5K06013-03 4.0 0.1 % ND 1.00 mg/kg wet 93.1 1.00 mg/kg wet 94.8 1.00 mg/kg wet Source: 5K06008-03 75.4 1.14 mg/kg dry Source: 5K05003-01	Prepared & Prepared &	Prepared & Analyzed: ND	Prepared & Analyzed: 11/10/15 ND 0.1 % Source: 5K06010-01 Prepared & Analyzed: 11/10/15 7.0 0.1 % 6.0 Source: 5K06012-11 Prepared & Analyzed: 11/10/15 8.0 0.1 % 7.0 Source: 5K06013-03 Prepared & Analyzed: 11/10/15 4.0 0.1 % 4.0 Prepared & Analyzed: 11/10/15 ND 1.00 mg/kg wet Prepared & Analyzed: 11/10/15 93.1 1.00 mg/kg wet 100 93.1 Prepared & Analyzed: 11/10/15 94.8 1.00 mg/kg wet 100 94.8 Source: 5K06008-03 Prepared: 11/10/15 Analyzed: 11/10/15 75.4 1.14 mg/kg dry 75.9 Source: 5K05003-01 Prepared: 11/10/15 Analyzed: 11	Prepared & Analyzed: 11/10/15 ND 0.1 % Source: 5K06010-01 Prepared & Analyzed: 11/10/15 7.0 0.1 % 6.0 Source: 5K06012-11 Prepared & Analyzed: 11/10/15 8.0 0.1 % 7.0 Source: 5K06013-03 Prepared & Analyzed: 11/10/15 4.0 0.1 % 4.0 Prepared & Analyzed: 11/10/15 ND 1.00 mg/kg wet Prepared & Analyzed: 11/10/15 93.1 1.00 mg/kg wet 100 93.1 80-120 Prepared & Analyzed: 11/10/15 94.8 1.00 mg/kg wet 100 94.8 80-120 Source: 5K06008-03 Prepared: 11/10/15 Analyzed: 11/11/15 75.4 1.14 mg/kg dry 75.9 Source: 5K05003-01 Prepared: 11/10/15 Analyzed: 11/11/15	Prepared & Analyzed: 11/10/15 ND 0.1 % Source: 5K06010-01 Prepared & Analyzed: 11/10/15 7.0 0.1 % 6.0 15.4 Source: 5K06012-11 Prepared & Analyzed: 11/10/15 8.0 0.1 % 7.0 13.3 Source: 5K06013-03 Prepared & Analyzed: 11/10/15 4.0 0.1 % 4.0 0.00 Prepared & Analyzed: 11/10/15 ND 1.00 mg/kg wet Prepared & Analyzed: 11/10/15 93.1 1.00 mg/kg wet 100 93.1 80-120 Prepared & Analyzed: 11/10/15 94.8 1.00 mg/kg wet 100 94.8 80-120 1.77 Source: 5K06008-03 Prepared: 11/10/15 Analyzed: 11/11/15 75.4 1.14 mg/kg dry 75.9 0.676 Source: 5K05003-01 Prepared: 11/10/15 Analyzed: 11/11/15	Prepared & Analyzed: 11/10/15 ND 0.1 % Source: 5K06010-01 Prepared & Analyzed: 11/10/15 7.0 0.1 % 6.0 15.4 20 Source: 5K06012-11 Prepared & Analyzed: 11/10/15 8.0 0.1 % 7.0 13.3 20 Source: 5K06013-03 Prepared & Analyzed: 11/10/15 4.0 0.1 % 4.0 0.00 20 Prepared & Analyzed: 11/10/15 ND 1.00 mg/kg wet Prepared & Analyzed: 11/10/15 93.1 1.00 mg/kg wet 100 93.1 80-120 Prepared & Analyzed: 11/10/15 94.8 1.00 mg/kg wet 100 94.8 80-120 1.77 20 Source: 5K06008-03 Prepared: 11/10/15 Analyzed: 11/11/15 75.4 1.14 mg/kg dry 75.9 0.676 20 Source: 5K05003-01 Prepared: 11/10/15 Analyzed: 11/11/15

Fax: (432) 563-2213

E Tech Environmental & Safety Solutions, Inc.

Project: NSLU #3 Inj Line

13000 West County Road 100

Project Number: 416-6628

Odessa TX, 79765

Project Manager: Tim McMinn

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P5K1020 - *** DEFAULT PREP ***										
Matrix Spike (P5K1020-MS1)	Sour	ce: 5K06008	3-03	Prepared: 1	1/10/15 A	nalyzed: 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)	Sour	ce: 5K06010	-05	Prepared &	: Analyzed:	11/12/15				
Chloride	1720	5.21	mg/kg dry		1710			0.328	20	
Duplicate (P5K1206-DUP2)	Duplicate (P5K1206-DUP2) Source: 5K06012-07									
Chloride	11600	53.8	mg/kg dry		11700			0.775	20	

Fax: (432) 563-2213

13000 West County Road 100 Project Number: 416-6628
Odessa TX, 79765 Project Manager: Tim McMinn

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

	Drew	Darron			
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.

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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.

Project: NSLU #3

13000 West County Road 100 Odessa TX, 79765 Project Number: 416-6628-000 Project Manager: Tim McMinn

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

Fax: (432) 563-2213

13000 West County Road 100 Project Number: 416-6628-000 Odessa TX, 79765 Project Manager: Tim McMinn

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

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

E Tech Environmental & Safety Solutions, Inc.

Project: NSLU #3

13000 West County Road 100 Project Number: 416-6628-000 Odessa TX, 79765 Project Manager: Tim McMinn

Fax: (432) 563-2213

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

		Reporting		Spike	Source	0/775	%REC	222	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P5L1806 - *** DEFAULT PREP ***										
Blank (P5L1806-BLK1)				Prepared &	Analyzed:	12/18/15				
% Moisture	ND	0.1	%							
Duplicate (P5L1806-DUP1)	Sour	rce: 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)	Sour	ce: 5L18003-	-01	Prepared & Analyzed: 12/22/15						
Chloride	ND	1.06	mg/kg dry	•	ND				20	
Duplicate (P5L2201-DUP2)	Sour	rce: 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			

13000 West County Road 100 Project Number: 416-6628-000 Odessa TX, 79765 Project Manager: Tim McMinn

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

Duplicate

MS Matrix Spike

Dup

	Bren Barron		
Report Approved By:		Date:	12/22/2015

Brent Barron, Laboratory Director/Technical Director

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