18-494

REPORTS

DATE:

9-5-07

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ENVIRONMENTAL SITE ASSESSMENT Plantation Operating, LLC C.T. Bates #4 Spill

Prepared for

John Allred

Approach Operating

2203 Timberloch Place, Suite 229 The Woodlands, TX 77380

September 5, 2007

Chad Gregson,
Environmental Scientist

White Buffalo Environmental Services 5425 Ben Ficklin Rd. San Angelo, TX 76904

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RANGE OPERATING NEW MEXICO, INC

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1.0 INTRODUCTION

1.1 Project Background

White Buffalo Environmental Services was retained by John Allred on behalf of Plantation Operating, LLC to conduct an Environmental Site Assessment (ESA) and necessary cleanup on the C.T. Bates #4 located in Jal, NM. The 30 bbl release was reported to the Oil Conservation Division of New Mexico on 7-9-07.

1.2 Project Objective

The objective of this ESA was to identify and quantify the C.T. Bates #4 Tank Battery spill contamination onto the surrounding soil and to remove the contamination. From interviews and on site investigation it was obvious that the spill had discharged salt water and skim oil on an area approximately 55ft. wide and 72 ft. long south of the tank battery, 8 ft. wide and 25 ft long on the east side, and an area approximately 28 ft. long and 14 ft wide north and under the tank. (See attached site map) Plantation Operating LLC employee (William Pilkington) contracted RMA Roustabout Service, Inc. out of Lovington, NM to excavate the contaminated soil over the entire spill area and properly remove the soil offsite to a local landfill. (See attached site Map).

2.0 Scope of Services

Perform ESA via visual inspection and sample collection after excavation to verify contamination is removed. A total of eight samples were collected on 7-11-07 from the surface after excavating the entire spill area. Total Petroleum Hydrocarbons (TRPH) method 8015N, Benzene, Toluene, Ethyl benzene, Xylene (BTEX) method 8260 GC/MS, and Chlorides method 300 Ion Chromatography analysis was performed on each sample. See collection point map and analytical results. The Oil Conservation Division (OCD) of New Mexico was contacted and informed of the 30 bbl spill and the clean up.

3.0 CHRONOLOGY

White Buffalo Environmental Services, Inc. of San Angelo, TX, was contracted to do the necessary ESA to obtain the need information to remediate the contaminated soil located around the tank battery of the C.T. Bates #4 well. Initially eight samples were collected from the site and surrounding area on 7-11-07 after the excavation. These samples will be used to verify that all of the contaminated soil from the salt water and skim oil release is properly removed from the site to below OCD regulatory limits. The soil samples were collected with a decontaminated, rinsed, aluminum hand scoop and immediately placed in appropriately labeled, sealed, 4-oz. glass containers with Teflon lids. The samples were immediately placed in an ice chest and transported to White Buffalo Environmental Services for sample preparation. The samples were transported to ASK Laboratories, Inc. located in Amarillo, TX to be analyzed for Total Petroleum Hydrocarbons (TRPH) method 8015N, Benzene, Toluene, Ethyl benzene, Xylene (BTEX) method 8260 GC/MS, and Chlorides method 300 Ion Chromatography.

The sample locations and field control information is summarized below. Compare to site map locations.

FC#	Description	Date	Time
01	Soil #1	7-11-07	12:00
02	Soil #2	7-11-07	12:05
03	Soil #3	7-11-07	12:09
04	Soil #4	7-11-07	12:15
05	Soil #5	7-11-07	12:19
06	Soil #6	7-11-07	12:24
07	Background	7-11-07	12:26
08	Spoils	4-26-07	12:30

4.0 SUMMARY OF FINDINGS

Evaluation of the results from the assessment samples and on site inspection on 7-11-2007, indicated that a release had occurred.

Evidence gathered during the site investigation after excavation indicated that:

A. Soil #1

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) TRPH Analysis indicated *normal* readings for the region.
- 4) Chloride Analysis indicated elevated readings for the region.

B. Soil #2

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) TRPH Analysis indicated the normal readings for the region or below OCD regulations.
- 4) Chloride Analysis indicated elevated readings for the region.

C. Soil #3

1) No visual or olfactory evidence of petroleum hydrocarbon contamination was present. 2) No surface water or free product was observed during the investigation. 3) TRPH Analysis indicated the normal readings for the region or below OCD regulations. 4) Chloride Analysis indicated normal readings for the region. D. Soil #4 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present. 2) No surface water or free product was observed during the investigation. 3) TRPH Analysis indicated the normal readings for the region or below OCD regulations. 4) Chloride Analysis indicated elevated readings for the region. **E.** Soil #5 1) No visual or olfactory evidence of petroleum hydrocarbon contamination was present. 2) No surface water or free product was observed during the investigation. 3) TRPH Analysis indicated the normal readings for the region or below OCD regulations. 4) Chloride Analysis indicated elevated readings for the region. **F. Soil #6**

1) No visual or olfactory evidence of petroleum hydrocarbon contamination was present.

- 2) No surface water or free product was observed during the investigation.
- 3) TRPH Analysis indicated the normal readings for the region or below OCD regulations.
- 4) Chloride Analysis indicated elevated readings for the region.

G. Background

- 1) No visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) TRPH Analysis indicated the normal readings for the region or below OCD regulations.
- 4) Chloride Analysis indicated normal readings for the region..

H. Spoils

- 1) No visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) TRPH Analysis indicated the normal readings for the region or below OCD regulations.
- 4) Chloride Analysis indicated elevated readings for the region.

The analytical results from the samples collected on 7-11-07 from the excavated area indicated Soil samples number 1, 4, 5, 6 and the spoils (refer to site Map) were still elevated with Chlorides or above OCD regulations and further excavation was needed in these areas. Contact was made by WBES employees to Plantation Operating LLC. to request further excavation in these areas. Contact was made to RMA Roustabout Service, Inc and on 8-1-07 these area were over excavated and six confirmation samples were collected to verify all contaminated soil has been removed from the site. The samples were transported to ASK Laboratories, Inc. located in Amarillo, TX to be analyzed for Chlorides method 300 Ion Chromatography.

Evidence gathered during the site investigation after excavation on 8-1-07 indicated that:

A. Soil #1A

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) Chloride Analysis indicated normal readings for the region.

B. Soil #4A

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) Chloride Analysis indicated normal readings for the region.

C. Soil #5A

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.

3) Chloride Analysis indicated elevated readings for the region.

D. Soil #6A

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) Chloride Analysis indicated normal readings for the region.

E. Spoils 1

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) Chloride Analysis indicated elevated readings for the region.

F. Spoils 2

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) Chloride Analysis indicated elevated readings for the region.

The analytical results from the samples collected on 8-1-07 from the excavated area indicated Soil samples number 5A (refer to site Map) was still elevated with Chlorides or above OCD regulations and further excavation was needed in these areas. Contact was made by WBES employees to Plantation Operating LLC. to request further excavation in these areas. Contact was made to RMA Roustabout Service, Inc and on 8-16-07 this area was over excavated and one confirmation sample was collected to verify all contaminated soil has been removed from the site. The sample was transported to ASK Laboratories, Inc. located in Amarillo, TX to be analyzed for Chlorides method 300 Ion Chromatography.

Evidence gathered during the site investigation after excavation on 8-16-07 indicated that:

A. Soil #5B

- 1) No Visual or olfactory evidence of petroleum hydrocarbon contamination was present.
- 2) No surface water or free product was observed during the investigation.
- 3) Chloride Analysis indicated normal readings for the region.

5.0 CONCLUSIONS AND RECOMMENDATIONS

White Buffalo Environmental Services, Inc. has performed an Environmental Site Assessment for the C.T. Bates #4 Tank Battery Spill remediation, located in Jal, NM using industry standard practices.

A review of the samples *after excavation and removing the material the site indicated* that all of the contaminated soil which could environmentally impact the property was properly removed offsite and disposed of in a local landfill. The excavated materials were transported to Sundance Services Inc. located in Eunice, NM.

In review of the sample results the following information and recommendations are given.

All results are below the immediate 100 mg/Kg required for Chlorides by the OCD. All excavated materials were properly removed and disposed at Sundance Services Inc. located in Eunice, NM..

No other environmental encumbrances were found on this property during this limited investigation.

White Buffalo Environmental

Chad Gregson 5425 Ben Ficklin Rd. San Angelo, TX 76904 (325) 651–9054

Plantation Operating, LLC

John Allred 2203 Timberloch Place, Suite 229 The Woodlands, TX 77380 (281) 296-7222

Sundance Services Inc.

Soil Disposal P.O. Box 1737 Eunice, New Mexico 88231

Oil Conservation Division

1220 South St. Francis Dr. Santa Fe, NM 87505 (505) 393-6161

APPENDIX A LABORATORY SAMPLES AND CHAIN OF CUSTODY

Analytical Services Kwik!

ASK LABORATORIES, INC. 5935 GLENOAK LANE AMARILLO, TEXAS 79109

Attn: CUSTOMER SERVICES Phone: (806) 353-4425

WHITE BUFFALO ENVIRO. SERVICE

5425 BEN FICKLIN ROAD SAN ANGELO, TX 76904

Attn: GREG SWINDLE

Accer. Gitte Swittball

Purchase Order: PLANTATION CT BATES #4

Invoice Number:

Order #: 07-07-049

Date: 07/25/07 10:30 Work ID: SOIL SAMPLES Date Received: 07/13/07

Date Completed: 07/25/07

Client Code: WHITE BUFF

SAMPLE IDENTIFICATION

Sample	Sample	Sample	Sample
<u>Number</u>	Description	Number	Description
01	SOIL 1	05	SOIL 5
02	SOIL 2	06	SOIL 6
03	SOIL 3	07	BACKGROUND
04	SOIL 4	08	SPOILS

Certified By

ALAN D. KING

Analytical Services Kwik!

Order # 07-07-049 07/25/07 10:30

ASK LABORATORIES, INC.

Page 2

TEST RESULTS BY SAMPLE

Sample: 01A SOIL 1

Collected: 07/11/07 12:00

Test Description	<u>Result</u>	SOL	<u>Units</u>	Analyzed	<u>By</u>
PERCENT SOLIDS - DRY WT.	90.40		wt % solids	07/16/07	BJP
CHLORIDE ON SOLIDS	6970	800	mg/kg	07/18/07	BNH
Total Pet. Hydrocarbons		•			
TPH C6-C12 - GRO	<28.7	28.7	mg/kg	07/24/07	BNH
TPH C12-C28 - DRO	<28.7	28.7	mg/kg	07/24/07	BNH
TPH C28-C35	<28.7	28.7	mg/kg	07/24/07	BNH
BTEX					
BENZENE	<0.006	0.006	mg/kg	07/18/07	JRM
TOLUENE	<0.011	0.006	mg/kg	07/18/07	JRM
ETHYLBENZENE	<0.006	0.006	mg/kg	07/18/07	JRM
XYLENE	<0.017	0.006	mg/kg	07/18/07	JRM
Surrogates					
BROMOFLUOROBENZENE	104	Min: 80	Max:	120	

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Order # 07-07-049 07/25/07 10:30

ASK LABORATORIES, INC.

Page 3

TEST RESULTS BY SAMPLE

Sample: 02A SOIL 2

Collected: 07/11/07 12:05

Test Description PERCENT SOLIDS - DRY WT.	<u>Result</u> 94.30	SQL	<u>Units</u> wt % solids	Analyzed 07/16/07	<u>By</u> BJP
CHLORIDE ON SOLIDS	9.2	8.0	mg/kg	07/18/07	BNH
Total Pet. Hydrocarbons TPH C6-C12 - GRO TPH C12-C28 - DRO TPH C28-C35	<32.2 <32.2 <32.2	32.2 32.2 32.2	mg/kg mg/kg mg/kg	07/24/07 07/24/07 07/24/07	BNH BNH BNH

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Order # 07-07-049 07/25/07 10:30

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Page 4

TEST RESULTS BY SAMPLE

Sample: 03A SOIL 3

Collected: 07/11/07 12:09

Test Description PERCENT SOLIDS - DRY WT.	Result 93.11	SQL	<u>Units</u> wt % solids	<u>Analyzed</u> 07/16/07	<u>By</u> BJP
CHLORIDE ON SOLIDS	<8.0	8.0	mg/kg	07/18/07	BNH
Total Pet. Hydrocarbons		•			
TPH C6-C12 - GRO	<31.1	31.1	mg/kg	07/24/07	BNH
TPH C12-C28 - DRO	<31.1	31.1	mg/kg	07/24/07	BNH
TPH C28-C35	<31.1	31.1	mg/kg	07/24/07	BNH
BTEX					
BENZENE	<0.005	0.005	mg/kg	07/18/07	JRM
TOLUENE	<0.010	0.010	mg/kg	07/18/07	JRM
ETHYLBENZENE	<0.005	0.005	mg/kg	07/18/07	JRM
XYLENE	<0.015	0.015	mg/kg	. 07/18/07	JRM
Surrogates					
BROMOFLUOROBENZENE	103	Min: 80	Max:	120	

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Order # 07-07-049 07/25/07 10:30

ASK LABORATORIES, INC.

Page 5

TEST RESULTS BY SAMPLE

Sample: 04A SOIL 4

Collected: 07/11/07 12:15

Test Description PERCENT SOLIDS - DRY WT.	<u>Result</u> 92.37	SQL	<u>Units</u> wt % solids	<u>Analyzed</u> 07/16/07	<u>By</u> BJP
CHLORIDE ON SOLIDS	1470	800	mg/kg	07/18/07	BNH
Total Pet. Hydrocarbons TPH C6-C12 - GRO TPH C12-C28 - DRO	<32.6 <32.6	32.6 32.6	mg/kg mg/kg	07/24/07 07/24/07	BNH BNH
TPH C28-C35	<32.6	32.6	mg/kg	07/24/07	BNH

Analytical Services Kwik!

Order # 07-07-049 07/25/07 10:30

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Page 6

TEST RESULTS BY SAMPLE

Sample: 05A SOIL 5

Collected: 07/11/07 12:19

Test Description PERCENT SOLIDS - DRY WT.	Result 93.24	SQL	<u>Units</u> wt % solids	<u>Analyzed</u> 07/16/07	<u>By</u> BJP
CHLORIDE ON SOLIDS	1350	800	mg/kg	07/18/07	BNH
Total Pet. Hydrocarbons TPH C6-C12 - GRO TPH C12-C28 - DRO TPH C28-C35	<32.0 <32.0 35.8	32.0 32.0 32.0	mg/kg mg/kg mg/kg	07/24/07 07/24/07 07/24/07	BNH BNH BNH

Analytical Services Kwik!

Order # 07-07-049 07/25/07 10:30

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Page 7

TEST RESULTS BY SAMPLE

Sample: 06A SOIL 6

Collected: 07/11/07 12:24

Test Description PERCENT SOLIDS - DRY WT.	Result 91.51	SOL	<u>Units</u> wt % solids	<u>Analyzed</u> 07/16/07	<u>By</u> BJP
CHLORIDE ON SOLIDS	1650	800	mg/kg	07/18/07	BNH
Total Pet. Hydrocarbons		h			
TPH C6-C12 - GRO	<32.1	32.1	mg/kg	07/24/07	BNH
TPH C12-C28 - DRO	<32.1	32.1	mg/kg	07/24/07	BNH
TPH C28-C35	<32.1	32.1	mg/kg	07/24/07	BNH

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Order # 07-07-049 07/25/07 10:30

ASK LABORATORIES, INC.

Page 8

TEST RESULTS BY SAMPLE

Sample: 07A BACKGROUND

Collected: 07/11/07 12:26

Test Description PERCENT SOLIDS - DRY WT. CHLORIDE ON SOLIDS	<u>Result</u> 99.37 <8.0	<u>SQL</u> 8.0	wt % solids	<u>Analyzed</u> 07/16/07 07/18/07	<u>By</u> BJP BNH
Total Pet. Hydrocarbons					
TPH C6-C12 - GRO	<28.4	28.4	mg/kg	07/24/07	BNH
TPH C12-C28 - DRO	<28.4	28.4	mg/kg	07/24/07	BNH
TPH C28-C35	<28.4	28.4	mg/kg	07/24/07	BNH

Analytical Services Kwik!

Order # 07-07-049 07/25/07 10:30

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Page 9

TEST RESULTS BY SAMPLE

Sample: 08A SPOILS

Collected: 07/11/07 12:30

Test Description PERCENT SOLIDS - DRY WT.	Result 91.74	SQL	<u>Units</u> wt % solids	<u>Analyzed</u> 07/16/07	<u>By</u> BJP
CHLORIDE ON SOLIDS	1370	5.0	mg/kg	07/18/07	BNH
Total Pet. Hydrocarbons TPH C6-C12 - GRO TPH C12-C28 - DRO TPH C28-C35	<62.8 648 <62.8	62.8 62.8 62.8	mg/kg	07/24/07 07/24/07 07/24/07	BNH BNH BNH

Analytical Services Kwik!

Order # 07-07-049 07/25/07 10:30		ASK LABORATORIES, INC.				Pa	ge 10
07,23,07 20150		QA/QC	INFORMATI	ON			
BATCH ID# V11-24	LCS	MS	MSD	RPD	BLANK		
BENZENE	105%	104%	102%	1.9%	bdl		
TOLUENE	98%	84%	89%	6.2%	bdl		
ETHYLBENZENE	96%	95%	96%	0.9%	bdl		
m,p-XYLENES	93%	93%	96%	2.8%	bdl		
O-XYLENE	98%	98%	102%	3.7%	bdl		
BATCH TPH008-24							
TX1005	LCS	MS	MSD	RI	PD	BLANK	
TPH	90%	88%	87	% 1.	. 8%	bdl	
COMPOUND	RPD	SPIKE	RECOVERY	QC RE	COVERY	BLANK	
CHLORIDE	0.2%		100%	100)왕	bdl	

bdl = below detectable levels

TEST METHODOLOGIES

TEST CODE : SOLIDS	TEST NAME : PERCENT SOLIDS FOR DRY WT CORRECTIONS
	REFERENCE CLP PROTOCOL/ SECTION IV/ PART F
TEST CODE : 8015N	TEST NAME: TRPH-8015M (GRO, DRO, C28-35)
	METHOD 8015M GCFID GAS CHROMATOGRAPHY WITH FLAME-IONIZATION DETECTOR. SW-846 TEST METHODS FOR EVALUATING SOLID WASTES.
TEST CODE : BTEX	TEST NAME : BTEX
	METHOD 8260 GC/MS GAS CHROMATOGRAPHY WITH MASS- SELECTIVE DETECTOR. SW-846 TEST METHODS FOR EVALUATING SOLID WASTES.
TEST CODE : CL_SOL	TEST NAME : CHLORIDE ON SOLID

METHOD 300.0 : ION CHROMATOGRAPHY
METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES,
EPA-600/4-79-020

Amarillo, Texas 79109 Telephone (806) 353-4425 Toll Free 1-800-423-9443 Facsimile (806) 352-6454

5935 Glenoak Lane

METHOD 9056: ION CHROMATOGRAPHY SW-846 TEST METHODS FOR EVALUATING SOLID WASTES.

ASK Laboratories

Analytical Services Kwik!

5935 Glenoak Lane Amarillo, Texas 79109 Telephone: (806) 353-4425 Facsimile: (806) 352-6454

Chain of Custody Record

Work Order No.

Client Name White Buffalo Environmenta
Project I.D. Location Plantation CT Bates #
Address 5425 Ben Fickling Rd. San Angelo
Telephone (325) 1051-9.054
Sampled By Chad GregSon

Please note: Liability and Damages. ASK Laboratories liability and clients exclusive remedy for any claim arising whither based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and other cause whatsoever shall be deemed waived unless made in writing and received by ASK Laboratories within think days of the applicable service. In no event shall ASK Laboratories be liable for incidental or consequential damages including without ilimitation, business interruptions, loss of use, or loss of manages including out or related to the performance of services rendered by ASK Laboratories, regardless of whether such claims is based upon any of the preceding stated reasons or otherwise.

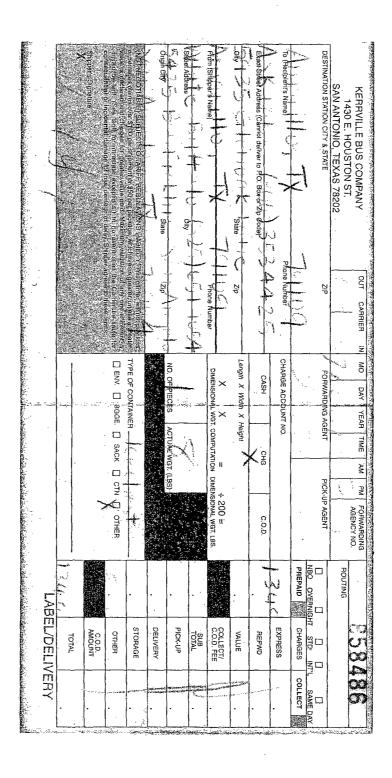
S	Analysis Ontoin Control Contro		× ×	×××	 X	X	× ×	× ×			3	No	K If Yes, Amt.	If No Temp 7.8 C			45	45K # 07070 49
	Sample Description		7	5	4		9	ckaround				Received by: (signapurg) Remarks: Yes	Received by (signature)	Received by: [signature]	3		Type of Container	Additional Comments:
	Date Time Matrix Composite Grab	71110712:00 5011 X 501	105 X 15:05	12:00 X Soi	12:15 X Sol	15 19 X 501	12.24 X Soil	V 12:26 V X Bac	V 12:30 V X Spoi			(Signature)	Rejigquished by Rignatures Time Time	red by: (Signature)	Client Agrees to:	Accept Returned Sample	Pay for sample Disposal (\$30 per 100 grams)	Client's Signature
	# əldmsz	0	02	03	04	05	90	07	08	60	10	Reli	<u> </u>	Relinquis	. Š	***	<u> </u>	

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Login Checklist

Order # <u>07070</u>	49	· 									
Shipping Method: Cooler Check	Bu	5		Date/T	ime o	f Rece	eipt: <u>/</u>	7/13/2 0900			
Coolei Check	<u> </u>	Icai	n Cooler	1	Cueto	dy Sea	1				
Shipping Container		100 1	If No,		ent?		act?	Tracking Number			
Simpping Container	Yes	No	Temperature	Yes		Yes	No	Tracking Number			
Cooler	7	110	2.8	Ž	110	X 140		858 486			
					la de est						
Note: If the tempera	ture o	f a co	oler/sample is	above	6°C f	ill out	NCR.	V.			
If Not Condition of Conta	s, is it t intac	intact t, fill :	? Yout NCR	es <u>X</u> es _ x es		No_ No_	,				
	en Cor s, fill c			es		No_	X				
Chain of Custody In If Yes, verify receipt and Date COC and from	of all	conta	iners listed and		— quirec	l field		•			
Acid Preserved San If No,	c/=2 Ye	Yes_NA No Yes_NA No									
Base Preserved San If No,	-		/=12 Ye	Yes_NH No							
Coolers Unpacked/	Check	ed by	/ :	Date:							
NCRs (v/n):		Faxed Confirmation (v/n):									

5935 Glenoak Lane Amarillo, TX 79109



APPENDIX 1 LABORATORY DATA COVER PAGE ASK Laboratories, Inc.

Laboratory Name: Project Name: ASK Laboratories, Inc. Plantation Operating

Reviewer Name:

Alan D. King

Date: 08/13/07 Laboratory ID#: 0708027 Analytical Services Kwik!

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- Field chain-of-custody documentation;
- Sample identifecation cross-reference;
- Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10,
 - b) Dilution factors,
 - c) Ppreparation methods,
 - d) Cleanup methods, and
 - e) If required for the project, tentatively identified compounds (TICs).
- Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- Test reports/summary forms for blank samples;
- Test reports/summary forms for laboratory control samples(LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent ans spiked samples.
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) The amount of analyte measured in the duplicate,
 - b) The calculated RPD, and
 - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- Other problems or anamalies.

The Exception Report for every "No" or Not Reviewed (NR)" item in laboratory review chechlist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory in the Laboratory Review Checklist, and no infromation or data have been knowingly withheld that would affect the quality of the data

President	8/13/2007
Official Title (Printed)	Date
	Claril Kno
Alan D. King	ocal a require
Name (Printed)	Signature

Analytical Services Kwik!

ANALYTICAL REPORT

Plantation Operating

Laboratory ID# 0708027

Greg Swindle

White Buffalo Environmental Service 5425 Ben Ficklin Road

San Angelo, TX 76904

ASK LABORATORIES, INC.

Alan D. King

08/13/07

5935 Glenoak Lane Amarillo, Texas 79109 Telephone (806) 353-4425 Toll Free 1-800-423-9443 Facsimile (806) 352-6454

WBES Order #0708027 1 of 6

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Analytical Services Kwik!

Sample Summary

Laboratory ID	<u>Description</u>	Sampled Date	<u>Time</u>	<u>Matrix</u>	Received
0708027-01	1a Second Excavation	08/01/07	12:00	Solid	08/07/07
0708027-02	4 a	08/01/07	15:00	Solid	08/07/07
0708027-03	5a	08/01/07	15:15	Solid	08/07/07
0708027-04	6a	08/01/07	15:30	Solid	08/07/07
0708027-05	Spoils 1	08/01/07	15:50	Solid	08/07/07
0708027-06	Spoils 2	08/01/07	16:00	Solid	08/07/07

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WBES Order #0708027 2 of 6

Analytical Services Kwik!

Test Results By Sample

Laboratory ID:

0708027-01

Sample Collected

Sample Description:

1a Second Excavation

Date:

Test Description:

CL

Time:

08/01/07 12:00

Matrix:

Chloride

Solid

MQL

8.47

Analyte

Result Flag 40.3

SQL <u>Units</u> 8.47 mg/kg

<u>df</u>

<u>Analyzed</u> <u>Analyst</u> 08/08/07 **BNH**

Method EPA 300(s) QC Batch ID IC0808

Test Results By Sample

Laboratory ID: Sample Description:

Test Description:

0708027-02

4a

CL Solid Sample Collected

Date:

08/01/07

Time:

15:00

Matrix: **Analyte** Chloride

Result <9.26

Result

793

Flag U

MQL SQL 9.26 9.26

<u>Units</u> mg/kg ₫f

40

Analyzed 08/08/07

Analyst **BNH**

Method EPA 300(s) QC Batch ID IC0808

Test Results By Sample

Laboratory ID:

0708027-03

Sample Collected

Sample Description:

5a

Analyzed

08/08/07

Date:

08/01/07

Test Description: Matrix:

CL

Time:

15:15

Analyte

Chloride

<u>Units</u>

mg/kg

SQL

92.1

Solid

Flag

MQL

92.1

Analyst

BNH

Method

QC Batch ID EPA 300(s) IC0808

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Analytical Services Kwik!

Test Results By Sample

Laboratory ID:

0708027-04

Sample Collected

08/01/07

Sample Description: **Test Description:**

6a CL

Date: Time:

15:30

Matrix:

Analyte

Chloride

Solid

Flag

<u>MQ</u>L

8.37

MQL

132

SQL

8.37

SQL

132

Units

mg/kg

Analyzed 08/08/07

Analyst Method BNH EPA 300(s) QC Batch ID IC0808

Test Results By Sample

Laboratory ID:

0708027-05

Sample Collected

Sample Description:

Spoils 1

Date:

08/01/07

Test Description:

CL

Time:

15:50

Method

Matrix:

Solid

Result

875

Result

47.5

<u>Analyte</u>

Chloride

Units

mg/kg

df

60

Analyzed Analyst 08/08/07

BNH EPA 300(s) QC Batch ID IC0808

Test Results By Sample

Laboratory ID:

0708027-06

Sample Collected

Sample Description:

Spoils 2 CL

Date:

Time:

08/01/07

Test Description: Matrix:

Solid

16:00

Analyte Chloride

Result

80.6

Flag

MQL

42.4

SQL 42.4

Units mg/kg

20

Analyzed 08/08/07

Analyst **BNH**

Method EPA 300(s) QC Batch ID IC0808

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Analytical Services Kwik!

QC Results: Wet Chem Blank and LCS

Test Description:

CL

10

Analyte Chloride Blank . ND

Spike LCS 9.98

% Recovery 100%

Limits 80%-120% QC Batch ID IC808

QC Results: Wet Chem Matrix Spike

Test Description:

CL

Analyte Chloride

Sample ID 0708027-01 Result 4.785

Spike 5

MS Result

% Recovery 98%

Limits 75%-125% QC Batch ID IC808

QC Results: Wet Chem Duplicate

Test Description:

CL

Analyte Chloride

Sample ID 0708027-01 MS Result

MSD Result 9.66 % RPD 0%

Limits 20%

QC Batch ID IC808

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Narrative

All exceptions are discussed in Appendix 2.

Methods

TEST NAME:

CHLORIDE

Method EPA 300.0: ANIONS by ION Chromatrography.

EPA Method for Evaluation of Wastes

Comments

J Flag = Measurement is >SQL and <MQL and is an estimated result.

U Flag = Measurement is <SQL and is undetected.

E Flag = Measurement above calibration range.

ND Flag = Measurement < MQL in QC Semples

Order #0708027

5 of 6

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ASK Laboratories

Analytical Services Kwik!

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Chain of Custody Record

Work Order No.

Client Name White BIHFalo Environmental
Project I.D./Location Plantation Operation
Address 5425 Ben Fick IIIn Rd. San Arzelo, Tx
Telephone (325) 1651 - 9054
Sampled By Chad Gregson

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No interior Required Control Remarks	X	×	X	×		. 42			, spice		Yes	If Yes, Amt.	If No. Explain	If No, Temp.	Comments	┙`	lal.	108037
Sample Description	la Second excavation	1a	52	62	Sports	Spoils 2		Pirac Ja			Received by Napadfall Remarks:	Received by: Signature) Headspace	Received by: Figgraph Sealed	MS Chilled to 40° F	Tamper Seal	Tive of Container	יאף כי בעונפו	Additional Comments:
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-Date	01104					\rightarrow	*	. —			noblished by: Bignature	Ted or Island	Relinquished by: (Signature	222	Client Agrees to:	Accept Returned Sample	for sample Di	Client's Signature
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Login Checklist

Order # <u>110806</u>	27	····								
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Shipping Container	Vac	No	If No,	Prese Yes		Yes	act?	Tracking Number		
Cooles	Yes	100	Temperature 5.5°C	168	No	168	190			
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					:					
Note: If the tempera	ture	f_{aco}	oler/sample is	hove	6°C f	ill out	NICD			
Note. If the tempera	illic o	i a co	oter/sample is	10000	0 C1	ու Ծաւ	NCK.			
Custody Seals on Bottles Present: If Yes, is it intact? If Not intact, fill out NCR Condition of Containers:										
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Broke If Yes			rs: Ye	es		No_/				
Chain of Custody Included: Yes No If Yes, verify receipt of all containers listed and all required fields are complete. Sign and Date COC and fill out laboratory boxes. Document any discrepancies on NCR.										
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Base Preserved Sam If No,	•			s WA	_	No_		1 /		
Coolers Unpacked/Checked by: Date: 0807/08										
NCRs (y/n): KO			<u> </u>	Faxed	Conf	ïrmat	ion (y/	'n):		

5935 Glenoak Lane Amarillo, TX 79109

SAME DA **3**070 LABEL/DELIVERY □ N I NBO OWERNIGHT STD IN COLLECT/ STORAGE DELIVERY C.O.D. AMOUNT EXPRESS TOTAL REFWD VALUE PICK-UP OTHER SUB 九年 1000 ROUTING FORWARDING AGENCY NO. X X \Rightarrow \div 200 = DIMENSIONAL WGT, LBS. OTHER C.O.D. ã □ ENV. □ BGGE. □ SACK □ CTN ACTUAL WGT. (LBS) AM YEAR TIME TYPE OF CONTAINER Length X Width X Height CHARGE ACCOUNT NO. NO. OF PIECES DAY CASH Q OUT CARRIER Phone Number 1 유 , Exact Street Address (Cannot deliver to P.O. Box or Zip Code) Š KERRVILLE BUS COMPANY
1430 E. HOUSTON ST.
SAN ANTONIO, TEXAS 78202
DESTINATION STATION OFFY & STATE -To (Regipient's Name) From (Shipper's Name) Street Address Origin City 8

Salar Sa

APPENDIX 2A LABORATORY REVIEW CHECKLIST ASK Laboratories, Inc.

Laboratory Name: Project Name: ASK Laboratories, Inc.

Plantation Operating

Laboratory ID#:

Reviewer Name: Alan D. King Analytical Services Kwik!

Cat # VES NO NA		TICVIC	WC I	variic.		Analytical Services Kwik!
Post State Post	Cat #	YES	NO	NΔ	FR#	Chain-of-custody (C-O-C)
VES NO NA				T 17	<u></u>	
Accordance Acc			L	L		
Accordance Acc		YES	NO	NA	FR#	Sample and quality control (QC) identification
VES NO NA ER # Test reports Were all saboratory ID numbers cross referenced to the corresponding QC data?	R2	r	<u> </u>	T	L1\"	
YES NO NA ER # Test reports			<u> </u>	 		-1
A			I			
A		YES	NO	NA	FR#	Test reports
A	R3			T		
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R3				 		
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APPENDIX 2B LABORATORY REVIEW CHECKLIST

Laboratory Name:

ASK Laboratories, Inc.

ASK Laboratories, Inc.

Project Name: Reviewer Name: Plantation Operating
Alan D. King

Analytical Services Kwik!

					Analytical Services Kwik!
04	YES	NO	NA T	ER#	Initial calibration (ICAL)
S1	X		 -		Were response factors and/or relative response factors for each analyte within QC limits?
S1	X		 		Were percent RSDs or correlation coefficient criteria met?
S1 S1	X				Was the number of standards recommended in the method used for all analytes?
S1	X				Were all points generated between the lowest and highest standard used to calculate the curve?
S1	X				Are ICAL data available for all instruments used?
01			<u> </u>		Has the initial calibration curve been verified using an appropriate second source standard?
	YES	NO	NA	ER#	Initial and continuing calibration verification (ICCV and CCV) and cont
S2	х				Was the CCV analyzed at the method-required frequency?
S2	х			·····	Were percent differences for each analyte within the method-required QC limits?
S2	х				Was the ICAL curve verified for each analyte?
S2	х				Was the absolute value of the analyte concentration in the inorganic CCB < MDL?
	YES	NO	NA	ER#	_ Mass spectral tuning
S3			X		Was the appropriate compound for the method used for tuning?
S3	L		Х		Were ion abundance data within the method-required QC limits?
	VEC	NO	NI A		Internal standards (IC)
C1	YES	NO	NA T	ER#	Internal standards (IS)
S4			x		Were IS area counts and retention times within the method-required QC limits?
	YES	NO	NΑ	ER#	Raw data
S5	X	110		LIV#	Were the raw data (i.e. chromatograms, spectral data) reviewed by an analyst?
S5	x				Were data associated with manual integrations flagged on the raw data?
			L		7
	YES	NO	NA	ER#	Dual column confirmation
S6			х		Did dual column confirmation results meet the method-required QC?
	YES	NO	NA	ER#	Tentatively identified compounds (TICs)
S7			х		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?
					1. (0 10 100 100
00	YES	NO	NA F	ER#	Interference Check Sample (ICS) results
S8	L		X		Were percent recoveries within method QC Limits?
	YES	NO	NA	ER#	Serial dilutions, post digestion spikes, and method of standard addtio
S9		110	×	LIV#	Were percent differences, recoveries, and the linearity within the QC limits specified in the method
					This person americance, recoveries, and the initiality within the 40 limits specified in the metric
	YES	NO	NA	ER#	Method detection limit (MDL) studies
S10	х				Was a MDL study performed for each reported analyte?
S10	х				Is the MDL either adjusted or supported by the analysis of DCSs?
	YES	NO	NA	ER#	Proficiency test reports
S11	x				Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation st
	VEC	NO	NΙΔ	CD #	Standarda dagumantationa
S12	YES x	NO	NA	ER#	Standards documentations
012					Are all standard used in the analyses NIST-traceable or obtained from other appropriate sources
	YES	NO	NA	ER#	Compound/analyte identification procedures
S13	х				Are the procedures for compound/analyte identification documented?
	YES	NO	NA	ER#	Demonstration of analyst competency (DOC)
S14	x				Was DOC conducted consistent with NELAC Chapter 5C ro ISO/IEC 4?
S14	х				Is documentation of the analyst's competency up-to-date and on file?
	\				Note that the second se
CAF	YES	NO I	NA	ER#	Verification/validation documentation for methods 5935 Glenoak Lane
S15	X				Are all the methods used to generate the data documented, verified, and validated, where applic: Amarillo, Texas 79109
	VEC	NO.	NI A	FD #	Telephone (806) 353-4425
S16	YES	NO	NA	ER#	Laboratory standard operating procedures (SOPs) Toll Free 1-800-423-9443
910	X		L		Are laboratory SOPs current and on file for each method performed? Facsimile (806) 352-6454

APPENDIX 3 LABORATORY EXCEPTION REPORTS

Laboratory Name: Project Name: Reviewer Name: ASK Laboratories, Inc. Plantation Operating Alan D. King Laboratory ID# Laboratories, Inc.

Exception Reports

Analytical Services Kwik!

There were no exceptions noted with this report.

5935 Glenoak Lane Amarillo, Texas 79109 Telephone (806) 353-4425 Toll Free 1-800-423-9443 Facsimile (806) 352-6454

ASK Laboratories, Inc.

Analytical Services Kwik!

ASK LABORATORIES, INC. 5935 GLENOAK LANE AMARILLO, TEXAS 79109

Attn: CUSTOMER SERVICES Phone: (806) 353-4425

WHITE BUFFALO ENVIRO. SERVICE

5425 BEN FICKLIN ROAD SAN ANGELO, TX 76904

Attn: GREG SWINDLE Invoice Number:

Order #: 07-08-074 Date: 08/23/07 13:08 Work ID: SOIL SAMPLE

Date Received: 08/17/07 Date Completed: 08/23/07 Client Code: WHITE BUFF

SAMPLE IDENTIFICATION

Sample Sample

Number Description

O1 SOIL 5B

Sample Number Sample escription

Certified By

Alan D. King

5935 Glenoak Lane Amarillo, Texas 79109 Telephone (806) 353-4425 Toll Free 1-800-423-9443 Facsimile (806) 352-6454

ASK Laboratories, Inc.

Analytical Services Kwik!

Order # 07-08-074 08/23/07 13:08 ASK LABORATORIES, INC.

Page 2

TEST RESULTS BY SAMPLE

Sample: 01A SOIL 5B

Collected: 08/16/07 12:00

Test Description	<u>Result</u>	RL_	<u>Units</u>	Analyzed	By
PERCENT SOLIDS - DRY WT.	95.47		wt % solids.	08/21/07	BJP
CHLORIDE ON SOLIDS	<8.0	8.0	mg/kg	08/20/07	BNH

QA/QC INFORMATION

COMPOUND RPD SPIKE RECOVERY QC RECOVERY BLANK CHLORIDE 0.8% 99% 102% bdl

bdl = below reportable levels

TEST METHODOLOGIES

TEST CODE : SOLIDS TEST NAME : PERCENT SOLIDS FOR DRY WT CORRECTIONS

REFERENCE CLP PROTOCOL/ SECTION IV/ PART F

TEST CODE : CL SOL TEST NAME : CHLORIDE ON SOLID

METHOD 300.0 : ION CHROMATOGRAPHY

METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES,

EPA-600/4-79-020

5935 Glenoak Lane Amarillo, Texas 79109 Telephone (806) 353-4425 Toll Free 1-800-423-9443 Facsimile (806) 352-6454

ASK Laboratories

Analytical Services Kwik!

5935 Glenoak Lane Amarillo, Texas 79109 Telephone: (806) 353-4425 Facsimile: (806) 352-6454

Margary .

Chain of Custody Record

Work Order No.

Client Name White Buffelo Environmental Services
Project I.D./Location Plantation CT Bates # 4

Address 5425 Ban Fick I. n. Rd.

Telephone 525 651- 9051

Sampled By CC

Please note: Liability and Damages. ASK Laboratories liability and clients exclusive remedy for any claim arising whither based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and other cause whatsoever shall be deemed walved unless made in writing and received by ASK Laboratories within thirty days of the applicable service. In no event shall ASK Laboratories be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by the client, its subsidiaries, affiliates, or successors arising out of or related to the performance of services rendered by ASK Laboratories, regardless of whether such claims is based upon any of the preceding stated reasons or otherwise.

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Login Checklist

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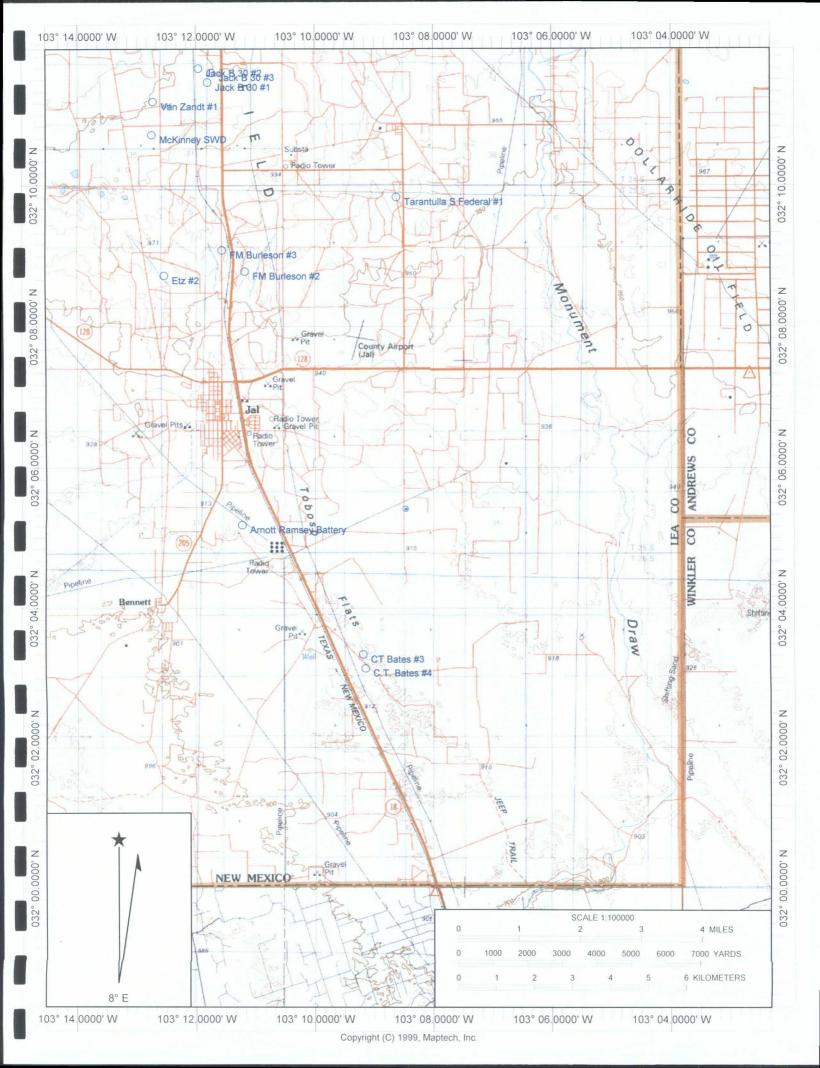
(1) 4.

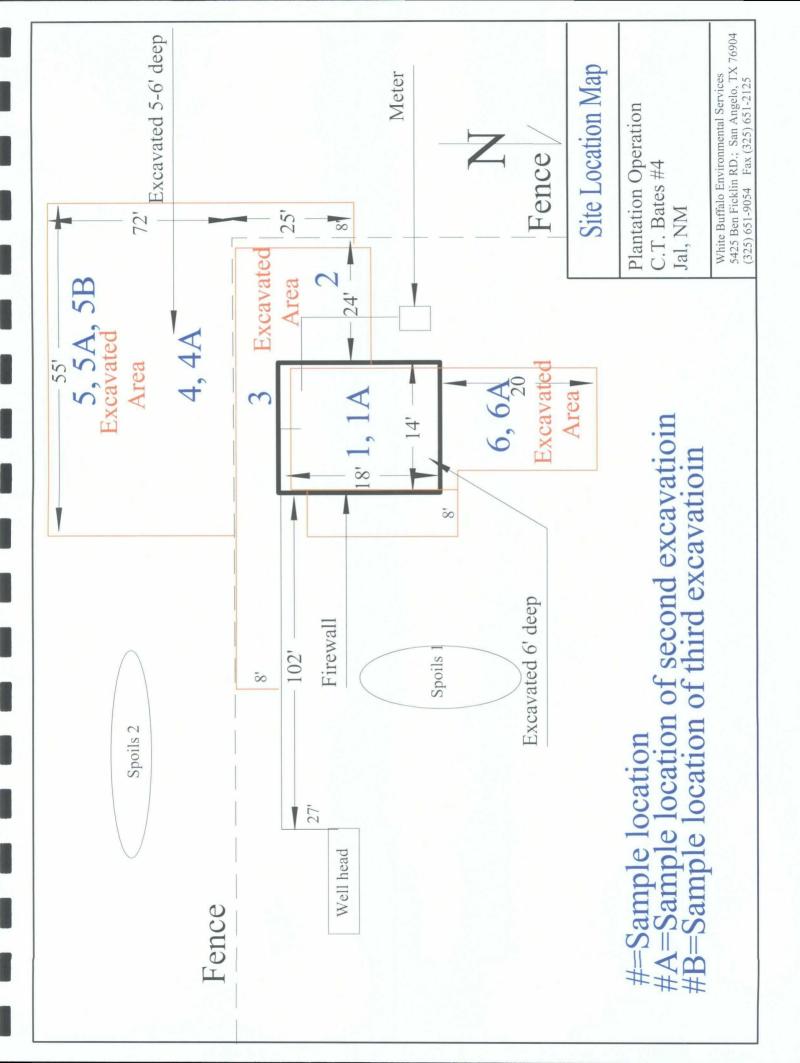
1.00

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Appendix B
USGS Map
Sample Map
Aerial Photograph









APPENDIX C NOTIFICATION TO PROPER AUTHORITIES

V500 Invoic

Sundance Services Inc.

P.O. Box 1737 Eunice, NM 88231

DATE	INVOICE
7/31/2007	44406

\$149.

Plantation Operating
309 W. 7th Street
STE 200
Fort Worth, TX 76102

Project TERMS

CT BATES #4

•	•			
QUANTITY	DESCRIPTION	N	RATE	AMOUNT
10.	Contaminated Soils - Exempt CT BATES #4		14.00 6.6875%	140. 9,
	NM Sales Tax		0.067370	<i>,</i>
		880.15 GLACCT	8494 PROPIAFE	
		ACT / COST TYPE		-
		•		
	AUG 8 2007			
<u> </u> 3 <u>)</u>				
			Total	\$14

Plantation Petro

NO. 6836

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 District III
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Revised October 10, 2003

Form C-141

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

			Keie	ease Mound	auo	п апа Со	rrecuve A	спод				
						OPER.	ATOR	5	Initi	al Report		Final Report
Name of Co	mpany	Plantation O	perating,	LLC		Contact J	ohn Allred				-	
		erloch Place lands, TX 7		29		Telephone l	No. 281-296-7	222				
Facility Nar				25-34404		Facility Typ	e 120 BBL Te	est Tank	ξ			
Surface Ow	ner John	ny Chapma	1).	Mineral C	wner	Plantation	Operating, LLC	-	Lease 1	No. 1341	1	
				LOCA	ATIO	N OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the		/South Line	Feet from the	East/W	est Line	County		
N	10	268	37È	660'		South	2145'	W	est	Lea		
			La	titude		Longitud	le		_			
				NAT	URE	OF REL	EASE					
Type of Rele	ase W	ater				Volume of		BLS	Volume	Recovered	20 BB	LS
Source of Re	lease L	ightning				Date and I 7/6/07 - 1	Hour of Occurrence	e		Hour of Dis 8:00 a.m.	covery	,
Was Immedi	ate Notice (If YES, To	Whom?		111101-	0.00 a.m.		
			Yes [No 🗌 Not Re	quired							
By Whom? Was a Water						Date and I					-	
was a water	course Read		Yes 🛚	No		N/A	olume Impacting t	thc Wate	rcourse.			
If a Watercon	nse was Im	pacted, Descr	ibe Fully.	*		<u> </u>						
NI A												
N/A												
D 41.0	60 11	1.7	P. S. L. (1)	m 1 - 1								
Describe Cau	ise of Probl	em and Reme	шаі Аспо	n laken								
Lightning hit	fiberglass v	water tank 7/6	/07 on Fri	iday night. Called	l White	Buffalo Envi	ronmental Service	s for pro	per clean	up.		
Describe Are	a Affected	and Cleanup A	Action Tal	ken.*							-	
Area affected	– 100 saus	are feet off pac	l in pasmı	re. Digging out co	ontamir	nated dirt and	hauling to landfill					·
			pwowi	a Pigging out of	D2111117431	ideor dirt said	araming to landim.	•				
Lhereby certi	fy that the i	nformation gi	ven shove	e is true and comp	lete to	the best of my	knowledge and w	ndanton	d that my	arramt to NIM	OCD -	Ja 4
regulations al	l operators	are required to	o report a	ad/or file certain r	eleasc	notifications a	മർ മലന്ത്രന്ന വേന്ദ്ര	tive acti	ons for re-	leases which	may e	ndanger
public health	or the envi	ronment. The	acceptan	ce of a C-141 repo	ort by th	he NMOCD n	arked as "Final R	eport" de	oes not re	lieve the one	rator o	f liability
or the enviro	peranons n ment In a	ave rance to a	inequatery CD accor	vinvestigate and rotance of a C-141	emedia Program	ite contaminat does not relies	ion that pose a thrue the operator of	eat to gr	ound wate	er, surface w	ater, hu	man health
federal, state,	or local la	vs and/or regi	larions.		тороде		———		omiy ioi (ompnance v	villi an	y outer
	<i>A</i> 31				1	· · ·	OIL CON	SERV	ATION	DIVISIO	<u>N</u>	
Signature:		Ker Ci	Line	K							_	
Printed Name	; John A	llred				Approved by	District Supervis	ot:				
Title: Engi	neer V	,				Approval Da	te:	I	Expiration	Date:		
E-mail Addre	≈s: jallte	d@plantation	petro.com			Conditions o	f Approval:			Attached		
Date:	7/9/07	1		Phone: 281-296-7	7222.					Macrica	<u>'</u>	
Attach Addi												

RANGE OPERATING NEW MEXICO, INC

Information and Metrics

Incident Date: 7/7/2007	Anioi muno	NMOCD Notific	ed: 7/9/2007	Gary Wink
Site: C.T. Bates #4		Assigned Site Re		
Company: Plantation Operat	ing, LLC			
Street Address: 2203 Timber				
Mailing Address: 2203 Tim				
City, State, Zip: The Woodl				
Representative: John Allred				
Representative Telephone:				
Fluid volume released (bbls)	· -/	Recovered (bbls): 20 BBLS	
	otify NMOCD verbally within			
	(Also applies to unauthoriz			
The state of the s		form C-141 within 15	days	
Leak, Spill, or Pit (LSP) Nan				
Source of contamination: T				
Land Owner, i.e., BLM, ST,				0.051
LSP Dimensions: 28' X 14' i		X 55° on south side	e of tank and	8'x25' east of tank
LSP Area: approximately 45				
Location of Reference Point				
Location distance and direct	tion from RP: NA			
Latitude: N 32° 3.147'				
Longitude: W 103° 9.150'	L AGGAN CRC			
Elevation above mean sea le	vel: 3001' per GPS			
T III.	CONTIA CO 10	TT *4 T 44 DT		
Location- Unit or ¼ ¼: SE/4	of SW/4 of Sec 10	Unit Letter: N		
Location Section: 10				
Location- Township: 26S				4 ty 2
Location Range: 37E				
	0001 11 6 11 11	C 11 TIGGG	A OCT	<u> </u>
Surface water body within 1			1 1) records
Domestic water wells within		<u> </u>		7
Agricultural water wells wit				
Depth from land surface to		estimated based on	OCD record	is per Chris Williams
Depth of contamination (DC				
Depth to ground water (DG		D 4 4	7 D: 4	4 C C W 4 D 1
1. Ground water If Depth to GW <50 feet: 20 points	If <1000' from water	Protection Area		ce to Surface Water Body ntal feet: 20 points
	from private dames			·
If Depth to GW 50 to 99 feet: 10 po	points		200-100 hor	izontal feet: 10 points
	If>1000' from water			
If Depth to GW >100 feet: 0 points	from private domes	tic water source: 0	>1000 horiz	ontal feet: 0 points
Ground Water Score = 10	points Wellhead Protection	Aron Soora - O	Sumface West	au Caana = 0
Site Rank $(1+2+3) = 10$	weimead Protection	Alta Scole - U	Surface Wat	ei Scole – 0
5.00 Kum (1.2.5) 10	Total Site Ranking Score a	nd Acceptable Concer	itrations	
Parameter	>19	10-19		0-9
Benzene	10 ppm	10 ppm		10 ppm
BTEX	50 ppm	50 ppm		50 ppm
TPH	100 ppm	1,000 ppn	n	5,000 ppm

APPENDIX D PHOTOGRAPHS



7-13-07 Excavated material when WBES arrived on site



7-13-07 site facing south



7-13-07 site facing south tank firewall area



7-13-07 area south of firewall across fence where Plantation excavated prior to WBES arrival



7-13-07 excavating area west of tank battery area



7-13-07 excavating area west of tank battery area



7-13-07 excavating area west of tank battery area



7-13-07 excavating area south of tank battery area



7-13-07 excavating area west of tank battery area across fence



7-13-07 excavating area south of tank battery area across fence



7-13-07 excavating area south of tank battery area across fence



7-13-07 excavating area south of tank battery area across fence



7-13-07 RMA employees removing contaminated soil from around piping



7-13-07 RMA excavated contaminated soil from around piping



7-13-07 standing on former firewall area facing south after excavation



8-1-07 Area prior to second excavation



8-1-07 Area prior to second excavation



8-1-07 Area prior to second excavation



8-1-07 second excavation on elevated areas according to analytical data



8-1-07 second excavation on elevated areas according to analytical data



8-1-07 second excavation on elevated areas according to analytical data



8-1-07 Spoils from second excavation on elevated areas according to analytical data



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 6 feet in firewall area



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 6 feet in firewall area



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 6 feet in firewall area



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 6 feet in firewall area



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 6 feet in firewall area



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 feet in area north of firewall



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 feet in area north of firewall



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 feet in area north of firewall



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 feet in area north of firewall



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 feet in area north of firewall



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 additional feet in area south of firewall across fence



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 additional feet in area south of firewall across fence





8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 additional feet in area south of firewall across fence

8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 additional feet in area south of firewall across fence



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8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 additional feet in area south of firewall across fence



8-1-07 second excavation on elevated areas according to analytical data. Excavated approximately 3 additional feet in area south of firewall across fence



8-1-07 spoils after second excavation



8-1-07 spoils after second excavation



8-1-07 site and spoils after second excavation



8-1-07 site and spoils after second excavation



8-16-07 site prior to third excavation south of firewall area across fence



8-16-07 third excavation south of firewall area across fence



8-16-07 third excavation south of firewall area across fence



8-16-07 third excavation south of firewall area across fence



8-16-07 third excavation spoils



8-16-07 third excavation south of firewall area across fence



8-16-07 third excavation south of firewall area across fence



8-16-07 third excavation south of firewall area across fence



8-16-07 transporting spoils to Sundance Services Inc. located in Eunice, NM



8-16-07 transporting spoils to Sundance Services Inc. located in Eunice, NM