RECR – 4

North Lea Joint Venture

Premlinary Site Visit 10/25/11

October 25, 2011
File No.: 122078.1-ALB11LT001

New Mexico Oil Conservation Division
1200 South St. Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Jim Griswold

Subject: Site Visit and Initial Assessment
North Lea Joint Venture Site
Crossroads, New Mexico

Dear Mr. Griswold:

Kleinfelder West, Inc. (Kleinfelder) performed a site visit and initial assessment of the property known as the North Lea Joint Venture Site (Subject Site). The site visit was performed on September 19, 2011 with a follow up visit performed on October 5, 2011 by Mr. Bernard Bockisch. Site access was facilitated by Mr. Maxey Brown with the New Mexico Oil Conservation Division (NMOCD). The site is located approximately 2.6 miles northeast of Crossroads, New Mexico (See Figure 1, Site Location Map).

The Subject Site consists of an abandoned crude oil pit that is surrounded by an earthen berm (See Figure 1, Site Plan). The pit is approximately 80 feet long by 80 feet wide. The earthen berm varies in height from approximately 3 to 6 feet high. It is approximately 20 feet wide at the base and 8 to 10 feet wide at the top. The pit is currently surrounded by a 4-wire barbed-wire fence. A gate is located along the western side of the pit. It appears that a portion of the western berm was pushed into the pit and may have been performed to provide access for a piece of equipment, possibly a drill rig.

A groundwater monitoring well was located outside of the fenced area adjacent to the southeastern corner of the pit. Depth to groundwater was observed at 121.19 feet below the top of casing (approximately 118 feet below ground surface). A sample was collected after three well volumes of ground water were bailed from the well. The groundwater sample was analyzed for benzene, toluene, ethylbenzene, and xylene by EPA Method 8260 and gasoline and diesel range organics total petroleum hydrocarbons (TPH) by EPA Method 8015B. The results of these analyses were less than the detection limits for the analytes (see attached).

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A second groundwater sample was collected on October 5, 2011 and analyzed for chlorides by EPA Method 6010. During this sampling event, the depth to water was 121.17 feet below the top of casing. The analytical result of this groundwater sample was 2500 milligrams per liter.

Kleinfelder believes that the lack of petroleum hydrocarbons in the groundwater indicates that the observed chloride concentrations may be the result of regional impacts from historical oil production operations. Based on the lack of petroleum hydrocarbons in the well, Kleinfelder believes that it is unlikely that the pit is the source (or at least the only source) of the chloride concentrations.

Based on our site visit, we believe there are three options for closure of the existing pit. These options are:

- Excavation and disposal of impacted materials in an approved landfill and backfilling of the excavation with clean fill,
- Excavation and remediation of the impacted materials by land farming and using the remediated materials for backfill, and
- In-place closure of the pit by placing a cap over the hydrocarbon impacted materials.

Kleinfelder has provided budgetary estimates for each of the closure options. The budgetary estimates are not based upon actual subcontractor costs. However, they are a reasonable estimate of cost based on the assumptions made. They are being provided to assist with deciding on which option to choose.

Excavation and Disposal

Kleinfelder estimates that there is approximately 3550 cubic yards of in-place material to be excavated from the pit. This is based on a surface measurement of the pit materials (approximately 80 feet (ft) by 80 ft) and an estimated depth of 15 ft. The actual depth of the material is currently unknown. However, we feel this is a conservative depth estimate based on the typical depth of pits (15 to 20 ft deep) and the height of the berm over the pit material (5 ft). Once excavated, the material will swell which will increase the overall volume of pit material to be disposed. Using a swell factor of 50%, Kleinfelder estimates a volume of 5335 cubic yards of pit material to be disposed.

The estimated cost to dispose of this material is $406,000.00. This is based on a per-yard cost of $100 to excavate, haul, dispose, backfill, and reseed the pit area. The breakdown for the estimate is as follows:

Project and field management, reporting:	$ 40,000.00
Fence removal and disposal of materials:	$ 6,000.00
Excavation, hauling, disposal, backfilling, reseeding:	$360,000.00
	$406,000.00

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Excavation and Landfarming

To landfarm the estimated 5335 cubic yards of material at the site, the process would take several steps. First, permission to landfarm the material would be required from the land owner, the New Mexico Environment Department (NMED) and NMOCD. Secondly, landfarming of the material would be performed by excavating the pit material and placing it within the fenced perimeter adjacent to the pit. Berm material would be pushed into the pit as the pit material was being removed to provide space for land application. Once the pit material was excavated, it would be spread out to a maximum thickness of 2 feet. Clean fill would be brought in, as needed, to bring the pit even with the ground surface.

The pit material would be mixed with manure or other nutrients, watered and turned with a tiller. The pit material would be watered and turned twice per month. Hydrocarbon degradation would be monitored on a monthly basis by collecting samples for laboratory analysis.

Finally, once the COC concentrations in the pit material dropped below regulatory limits, the pile would be thin spread across the site and the fence would be removed. A final report would be submitted that would include a description of the process and the analytical results of the pit material.

The estimated cost to excavate and landfarm this material is $216,000. This is based on a timeframe of approximately one year for the COC soil concentrations to drop below regulatory limits. The estimate includes backfilling the pit to ground surface with clean fill, monthly maintenance and sampling, fence removal, final spreading, and reporting. The breakdown for this is as follows:

Project and field management, sampling,and reporting:	$ 75,000.00
Fence removal and disposal of materials:	$ 6,000.00
Excavation, hauling, disposal, backfilling, reseeding:	$135,000.00
	$216,000.00

A limiting factor in this option is that the winter months are approaching. The microbial population that normally degrades TPH concentrations becomes dormant when temperatures drop below 40 degrees F. If this option is selected, it may be prudent to wait until the spring to perform the remediation.

In-Place Closure

In-place closure would be performed by filling in the low areas of the pit with the berm material. Additional clean fill may be brought in if necessary. Once the pit area was filled to grade, a 1 to 2 foot lift of clean sand would be placed on the ground surface over the former pit area. The sand would be used to protect the liner from possible penetrations from the ground surface. A 60-mil polyethylene liner would be placed over the sand and capped with an additional 6-inch to 1 foot thick lift of sand. Clean fill capable of

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supporting vegetation would be placed over the sand and sloped so that water would run off of the pit area. The area would then be revegetated.

The estimated cost to place a cap over the pit is $175,000. This is based on a timeframe of approximately one year for the soil concentrations to drop below regulatory limits. The estimate includes permitting and design, backfilling the pit to ground surface with clean fill, revegetation, removal of the fence and final reporting. The breakdown for this is as follows:

Design, permitting, project and field management, and reporting:	$ 64,000.00
Fence removal and disposal of materials:	$ 6,000.00
Excavation, hauling, disposal, backfilling, reseeding:	$105,000.00
	$175,000.00

Prior to performing pit closure, Kleinfelder recommends advancing three borings at the Subject Site to assess the potential horizontal and vertical extent of COCs. The first boring would be advanced as close to the pit as possible within the portion of the berm that was pushed into the pit (see Figure 1). This boring would help assess the vertical extent of COCs as well as provide an estimate of the depth of material in the pit. The remaining two borings would be placed to the northeast and southeast corners of the pit. These borings would assist with assessing the horizontal extent of impacts from the pit. Each boring would be advanced to a depth of approximately 75 ft (bgs) and sampled for TPH and chlorides. Kleinfelder would also collect a sample of the pit material for possible landfill disposal characterization.

This work was performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee, or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided. This report may be used only by the Client and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than two (2) years from the date of this letter.

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Should you agree with our approach we will provide a workplan and cost estimate for the proposed initial assessment (drilling and sampling) of the pit. Should you have any questions, we would be pleased to discuss them with you.

Respectfully submitted,

KLEINFELDER WEST, INC.

Bernard Bockisch, PMP
Senior Project Manager

Reviewed by:

Eileen L. Shannon, PG
Project Professional

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N

0 175 350 700

Feet

SOURCES: http://services.arcgisonline.com/ArcGIS/rest/services/ESRI_Imagery_World_2D/MapServer

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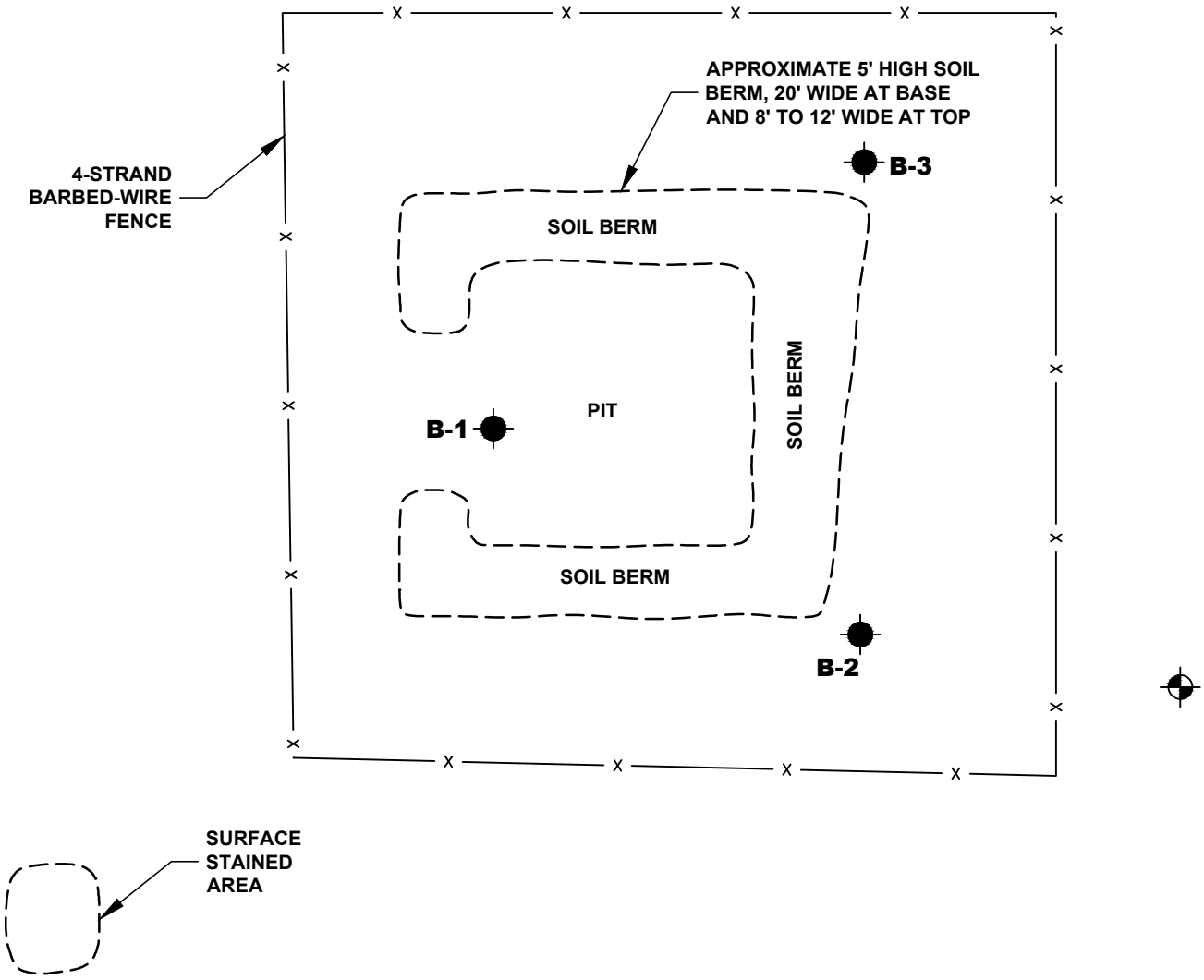
www.kleinfelder.com

PROJECT NO.	122078
DRAWN:	10/20/2011
DRAWN BY:	PD
CHECKED BY:	BB
FILE NAME:	122078_SiteMap.MXD

SITE MAP

NORTH LEA JOINT VENTURE PIT
2.6 MILES NW OF CROSSROADS, NM
LEA COUNTY, NEW MEXICO

FIGURE
1



LEGEND

- APPROXIMATE MONITORING WELL LOCATION
- B-3 PROPOSED BORING LOCATION

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PLOTTED: 25 Oct 2011, 8:56am, dfahrney
CAD FILE: L:\2011\CADD\122078\ LAYOUT: Layout1
ATTACHED IMAGES:
ATTACHED XREFS:
RIVERSIDE, CA

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PROJECT NO.	122078
DRAWN:	9/2011
DRAWN BY:	DMF
CHECKED BY:	BB
FILE NAME:	122078-F1.dwg

BORING LOCATION MAP

NORTH LEA SITE
NMOCD - NEW MEXICO OIL CONSERVATION DIVISION
CROSS ROADS, NEW MEXICO

FIGURE
2

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, September 27, 2011

Bernie Bockisch
Kleinfelder
9019 Washington NE Building A
Albuquerque, NM 87113

TEL: (505) 344-7373
FAX (505) 344-1711

RE: North Lez Pit

Order No.: 1109702

Dear Bernie Bockisch:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 9/20/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Sep-11*

Analytical Report

CLIENT:	Kleinfelder	**Client Sample ID:**	NL-1
Lab Order:	1109702	**Collection Date:**	9/19/2011 2:47:00 PM
Project:	North Lez Pit	**Date Received:**	9/20/2011
Lab ID:	1109702-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/22/2011 12:14:36 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/22/2011 12:14:36 PM
Surr: DNOP	147	81.1-147		%REC	1	9/22/2011 12:14:36 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/26/2011 9:18:03 PM
Surr: BFB	92.7	65.4-141		%REC	1	9/26/2011 9:18:03 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	9/21/2011 1:52:59 AM
Toluene	ND	1.0		µg/L	1	9/21/2011 1:52:59 AM
Ethylbenzene	ND	1.0		µg/L	1	9/21/2011 1:52:59 AM
Xylenes, Total	ND	2.0		µg/L	1	9/21/2011 1:52:59 AM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	9/21/2011 1:52:59 AM
Surr: 4-Bromofluorobenzene	98.3	73-131		%REC	1	9/21/2011 1:52:59 AM
Surr: Dibromofluoromethane	101	70-130		%REC	1	9/21/2011 1:52:59 AM
Surr: Toluene-d8	91.8	70-130		%REC	1	9/21/2011 1:52:59 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Sep-11*

Analytical Report

CLIENT:	Kleinfelder	**Client Sample ID:**	TRIP BLANK
Lab Order:	1109702	**Collection Date:**	
Project:	North Lez Pit	**Date Received:**	9/20/2011
Lab ID:	1109702-02	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	9/21/2011 3:38:33 AM
Toluene	ND	1.0		µg/L	1	9/21/2011 3:38:33 AM
Ethylbenzene	ND	1.0		µg/L	1	9/21/2011 3:38:33 AM
Xylenes, Total	ND	2.0		µg/L	1	9/21/2011 3:38:33 AM
Surr: 1,2-Dichloroethane-d4	92.0	70-130		%REC	1	9/21/2011 3:38:33 AM
Surr: 4-Bromofluorobenzene	92.5	73-131		%REC	1	9/21/2011 3:38:33 AM
Surr: Dibromofluoromethane	96.8	70-130		%REC	1	9/21/2011 3:38:33 AM
Surr: Toluene-d8	92.5	70-130		%REC	1	9/21/2011 3:38:33 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Kleinfelder
Project: North Lez Pit **Work Order:** 1109702

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-28523		*MBLK*				Batch ID:	**28523**	Analysis Date:		9/22/2011 8:48:08 AM	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-28523		*LCS*				Batch ID:	**28523**	Analysis Date:		9/22/2011 9:22:39 AM	
Diesel Range Organics (DRO)	5.525	mg/L	1.0	5	0	111	74	157			
Sample ID: LCSD-28523		*LCSD*				Batch ID:	**28523**	Analysis Date:		9/22/2011 9:57:00 AM	
Diesel Range Organics (DRO)	5.705	mg/L	1.0	5	0	114	74	157	3.20	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: B 7		*MBLK*				Batch ID:	**R47995**	Analysis Date:		9/26/2011 2:09:39 PM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R47995**	Analysis Date:		9/26/2011 1:11:45 PM	
Gasoline Range Organics (GRO)	0.5598	mg/L	0.050	0.5	0	112	92.1	117			
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1109702-01a msd		*MSD*				Batch ID:	**R47892**	Analysis Date:		9/21/2011 2:45:47 AM	
Benzene	18.94	µg/L	1.0	20	0	94.7	69.2	127	2.63	18.7	
Toluene	18.64	µg/L	1.0	20	0	93.2	68.2	130	3.20	16.9	
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R47892**	Analysis Date:		9/20/2011 10:01:02 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R47892**	Analysis Date:		9/20/2011 10:54:59 AM	
Benzene	20.23	µg/L	1.0	20	0	101	81.1	130			
Toluene	19.21	µg/L	1.0	20	0	96.1	82.3	122			
Sample ID: 1109702-01a ms		*MS*				Batch ID:	**R47892**	Analysis Date:		9/21/2011 2:19:26 AM	
Benzene	19.45	µg/L	1.0	20	0	97.2	69.2	127			
Toluene	19.24	µg/L	1.0	20	0	96.2	68.2	130			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name KLEIN | Date Received: 9/20/2011

Work Order Number 1109702 | Received by: AMG

Checklist completed by: Signature 9/20/11 Date | Sample ID labels checked by: AA Initials

Matrix: | Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**6.2°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: KLEINFELDER

Mailing Address: 9019-A WASHINGTON NE
ALBUQUERQUE NM 87113

Phone #: 505-344-7373

email or Fax#: BBOCKISCH@KLEINFELDER.COM

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation
☑ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name:
NORTH LEA PIT

Project #:
122078

Project Manager:
BERNARD BOCKISCH

Sampler: B. BOCKISCH

On Ice: ☑ Yes ☐ No

Sample Temperature: 0.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1109-102
9/19/11	1447	WATER	NL-1	6x40mL VOA	HCl	-1
			TRIP BLANK	2 VOA	HCl	-2

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021B BTEX ONLY				Air Bubbles (Y or N)
		✓									✓				
											✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/20/11	10:18			9/20/11	1018
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, October 12, 2011

Bernard Bokisch
Kleinfelder
9019 Washington NE Building A
Albuquerque, NM 87113

TEL: (505) 344-7373
FAX (505) 344-1711

RE: North LEA Pit

Order No.: 1110365

Dear Bernard Bokisch:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 10/6/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Oct-11*

Analytical Report

CLIENT:	Kleinfelder	**Client Sample ID:**	North LEA-1 Chloride
Lab Order:	1110365	**Collection Date:**	10/4/2011 12:07:00 PM
Project:	North LEA Pit	**Date Received:**	10/6/2011
Lab ID:	1110365-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	2500	100		mg/L	200	10/11/2011 2:31:41 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Kleinfelder
Project: North LEA Pit **Work Order:** 1110365

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R48241**	Analysis Date:		10/6/2011 3:51:54 PM	
Chloride	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R48312**	Analysis Date:		10/10/2011 11:43:50 AM	
Chloride	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R48241**	Analysis Date:		10/6/2011 4:09:19 PM	
Chloride	5.014	mg/L	0.50	5	0	100	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R48312**	Analysis Date:		10/10/2011 12:01:14 PM	
Chloride	4.982	mg/L	0.50	5	0	99.6	90	110			
Sample ID: LCSD		*LCSD*				Batch ID:	**R48241**	Analysis Date:		10/6/2011 4:26:44 PM	
Chloride	4.977	mg/L	0.50	5	0	99.5	90	110	0.728	20	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name KLEIN | Date Received: 10/6/2011

Work Order Number 1110365 | Received by: AMG

Checklist completed by: Signature 10/6/11 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	**4.1°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: KLEINFELDER, INC.

Mailing Address: 9019A WASHINGTON NE

Phone #: 505-344-7373

email or Fax#: BBOCKISCH@KLEINFELDER.COM

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation
☑ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name: NORTH LEA PIT

Project #: 122078/1

Project Manager: BERNARD BOCKISCH

Sampler: BERNARD BOCKISCH

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1103665
10/4/11	12:07	WATER	NORTH LEA - 1 CHLORIDE	1X POLY	NONE	-1

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDES				Air Bubbles (Y or N)
											X				

Date	Time	Relinquished by:	Received by:	Date	Time
10/6/11	7:26			10/6/11	7:26
10/6/11	11:56			10/6/11	11:56

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.