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Elke Environmental, Inc.

4817 Andrews Hwy.  
Odessa, Tx. 79762

Pho. 432-366-0043  
Fax: 432-366-0884

Mail: P. O. Box 14167  
Odessa, Tx. 79768

December 18, 2006

Mr. Chris Williams  
New Mexico Oil Conservation Division  
1625 N. French Dr.  
Hobbs, New Mexico 88240

SUBJECT: Closure Report for David H. Arrington Double Hackle Drake #1 Reserve Pit  
API no. 30-025-36704 U/L D Sec. 36 T16s R35e Lea County, NM

Dear Mr. Williams,

Enclosed is a copy of the initial form C-144 closure plan along with a drawing of the site indicating reserve and burial pit locations and field sample information. Also included are confirming laboratory samples and photos indicating varying stages of the pit closure.

The revised closure method is the result of a conversation between you and Logan Anderson with Elke on November 21, 2006.

As indicated by field and laboratory sample results, 3 of the 5 test points show a decline below 250 ppm in chloride content while points #1 and #2 were showing sharp declines well above groundwater. As agreed, the reserve pit berm was used to backfill to 4 ft. bgs, covered with a 20 mil impervious liner, then backfilled with clean soil and domed to prevent pooling as described in the initial C-144 closure plan. The reserve pit contents were mixed and solidified with Elke Environmental solidification product in burial pits as indicated by the drawing.

Any questions or concerns may be addressed to Robert Spangler at 432-638-4220 or Logan Anderson at 432-664-1269.

Sincerely,

*Hamp Kerby*

Hamp Kerby – Elke Environmental, Inc.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

12/27/2006

Hamp Kerbe, Elke Environmental, Inc.  
On behalf of David H. Arrington Oil and Gas Co.  
4817 Andrews Highway  
Odessa, Texas 79762

Re: Double Hackle Drake #1 Reserve Pit API 30-025-36704  
UL D Sec. 36-T16S-R35E Lea County, NM

Dear Mr. Kirby:

New Mexico Oil Conservation Division (OCD) personnel reviewed the closure report submitted by Elke Environmental, Inc. (Elke) on behalf of David H. Arrington (DHA) for the site referenced above. The closure is hereby approved according to information provided.

Please be advised that OCD approval does not relieve DHA of liability should operations result in contamination of surface water, groundwater, or the environment. In addition, OCD approval does not relieve DHA of responsibility for compliance with other federal, state or local laws and or regulations.

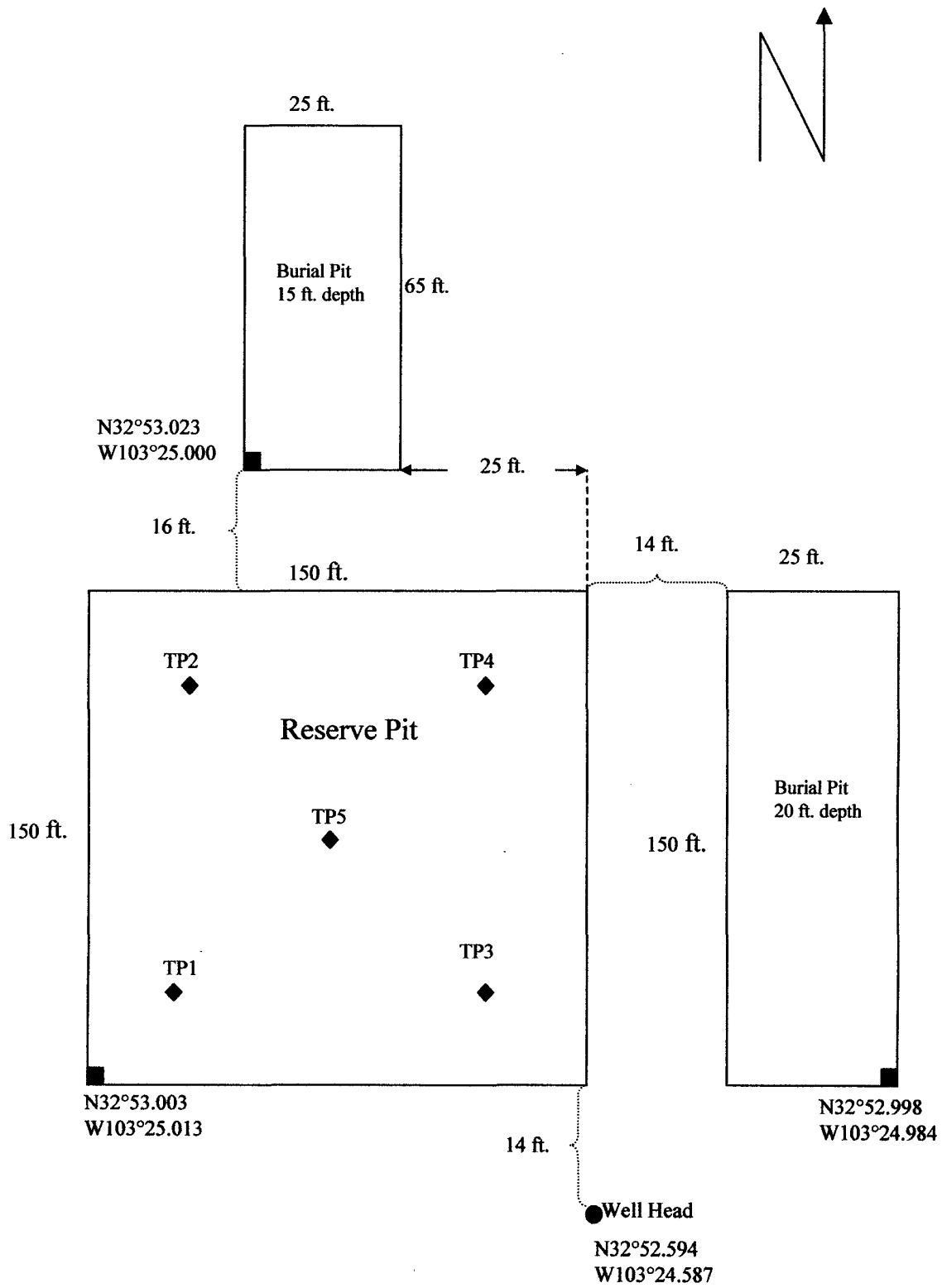
If you have any questions or need assistance please write or call: 505-393-6161 ext. 102, or e-mail [chris.williams@state.nm.us](mailto:chris.williams@state.nm.us)

Sincerely,

NMOCD District I Supervisor

# David H. Arrington Double Hackle Drake #1

Site Sketch with Sample Results 12-01-06



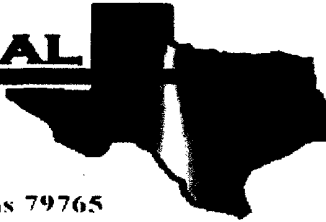
**David H. Arrington Double Hackle Drake #1**  
**Reserve Pit Field Sample Chart**

Sample ID	Sample Date	Depth	Cl ppm	GPS
TP1	11/15/2006	8 ft.	3309	N32°53.000 W103°25.017
	11/16/2006	10 ft.	4938	
	11/16/2006	12 ft.	1336	
	11/16/2006	14 ft.	1859	
	11/17/2006	18 ft.	1596	
	11/17/2006	20 ft.	1029	
	11/21/2006	22 ft.	727	
TP2	11/15/2006	8 ft.	1936	N32°53.015 W103°25.017
	11/16/2006	10 ft.	3115	
	11/16/2006	12 ft.	2532	
	11/16/2006	14 ft.	1724	
	11/17/2006	18 ft.	1924	
	11/17/2006	20 ft.	1646	
	11/17/2006	24 ft.	1362	
	11/21/2006	28 ft.	1474	
	11/21/2006	30 ft.	1263	
	11/21/2006	31 ft.	1397	
	11/21/2006	32 ft.	687	
TP3	11/16/2006	8 ft.	6948	N32°53.001 W103°24.993
	11/16/2006	10 ft.	8049	
	11/17/2006	12 ft.	5660	
	11/17/2006	18 ft.	304	
	11/20/2006	20 ft.	3069	
	11/20/2006	22 ft.	575	
	11/20/2006	24 ft.	1207	
	11/21/2006	25 ft.	562	
	11/21/2006	26 ft.	294	
	11/21/2006	28 ft.	291	
	11/21/2006	29 ft.	150	
TP4	11/16/2006	8 ft.	1794	N32°53.018 W103°24.990
	11/17/2006	10 ft.	8246	
	11/17/2006	12 ft.	3149	
	11/17/2006	20 ft.	857	
	11/17/2006	22 ft.	959	
	11/20/2006	24 ft.	723	
	11/20/2006	26 ft.	590	
	11/20/2006	28 ft.	687	
	11/21/2006	30 ft.	599	
	11/21/2006	32 ft.	351	
	11/21/2006	34 ft.	250	
TP5	11/16/2006	8 ft.	17989	N32°53.014 W103°24.999
	11/16/2006	10 ft.	12533	
	11/17/2006	12 ft.	6340	
	11/17/2006	14 ft.	4867	
	11/20/2006	16 ft.	14491	
	11/20/2006	20 ft.	14207	
	11/20/2006	22 ft.	6069	
	11/21/2006	26 ft.	2447	
	11/21/2006	28 ft.	207	
Bck'gnd	11/16/2006	Surface	142	

David H. Arrington Double Hackle Drake #1  
Reserve Pit Lab Sample Chart

Date	Sample Pt	Depth	Benzene (ppm) (8021B)	Toluene	Eth'Benz	Xylene (p/m)	Xylene (o)	TPH (ppm) (8015M)	Chlorides (ppm)
11/28/2006	TP1 BGS	22 ft.	ND	ND	ND	ND	ND	ND	659
"	TP2 BGS	32 ft.	ND	0.037	0.0216	0.106	0.0755	45.3	617
"	TP3 BGS	29 ft.	ND	ND	ND	ND	ND	ND	191
"	TP4 BGS	34 ft.	ND	ND	ND	ND	ND	18.7	351
"	TP5 BGS	28 ft.	ND	ND	ND	ND	ND	ND	53.2

# **ENVIRONMENTAL LAB OF**



12600 West I-20 East - Odessa, Texas 79765

## **Analytical Report**

**Prepared for:**

Robert Spangler

Elke Environmental

P.O. Box 14167

Odessa, TX 79768

Project: David H. Arrington

Project Number: Double Hackle Drake

Location: None Given

Lab Order Number: 6K28012

Report Date: 11/30/06

Elke Environmental  
P.O. Box 14167  
Odessa TX, 79768

Project: David H. Arrington  
Project Number: Double Hackle Drake  
Project Manager: Robert Spangler

Fax: (432) 366-0884

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP1 BGS	6K28012-01	Soil	11/28/06 08:00	11-28-2006 15:50
TP2 BGS	6K28012-02	Soil	11/28/06 08:45	11-28-2006 15:50
TP3 BGS	6K28012-03	Soil	11/28/06 09:25	11-28-2006 15:50
TP4 BGS	6K28012-04	Soil	11/28/06 09:50	11-28-2006 15:50
TP5 BGS	6K28012-05	Soil	11/28/06 10:15	11-28-2006 15:50

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**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TP1 BGS (6K28012-01) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK62715	11/28/06	11/29/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK62826	11/28/06	11/29/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		93.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		118 %	70-130		"	"	"	"	
<b>TP2 BGS (6K28012-02) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK62715	11/28/06	11/29/06	EPA 8021B	
Toluene	0.0370	0.0250	"	"	"	"	"	"	
Ethylbenzene	J [0.0216]	0.0250	"	"	"	"	"	"	J
Xylene (p/m)	0.106	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0755	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		81.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	14.0	10.0	mg/kg dry	1	EK62826	11/28/06	11/29/06	EPA 8015M	
Carbon Ranges C12-C28	31.3	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	45.3	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		95.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		125 %	70-130		"	"	"	"	
<b>TP3 BGS (6K28012-03) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK62715	11/28/06	11/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		81.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK62826	11/28/06	11/29/06	EPA 8015M	

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Elke Environmental  
P.O. Box 14167  
Odessa TX, 79768

Project: David H. Arrington  
Project Number: Double Hackle Drake  
Project Manager: Robert Spangler

Fax: (432) 366-0884

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TP3 BGS (6K28012-03) Soil</b>									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EK62826	11/28/06	11/29/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		86.6 %	70-130	"	"	"	"	"	
Surrogate: 1-Chlorooctadecane		105 %	70-130	"	"	"	"	"	
<b>TP4 BGS (6K28012-04) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK62715	11/28/06	11/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		84.8 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.0 %	80-120	"	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK62826	11/28/06	11/29/06	EPA 8015M	
Carbon Ranges C12-C28	18.7	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	18.7	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		103 %	70-130	"	"	"	"	"	
Surrogate: 1-Chlorooctadecane		127 %	70-130	"	"	"	"	"	
<b>TP5 BGS (6K28012-05) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK62715	11/28/06	11/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.8 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.0 %	80-120	"	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK62826	11/28/06	11/29/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		99.6 %	70-130	"	"	"	"	"	
Surrogate: 1-Chlorooctadecane		121 %	70-130	"	"	"	"	"	

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Elke Environmental  
P.O. Box 14167  
Odessa TX, 79768

Project: David H. Arrington  
Project Number: Double Hackle Drake  
Project Manager: Robert Spangler

Fax: (432) 366-0884

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TP1 BGS (6K28012-01) Soil</b>									
Chloride	659	20.0	mg/kg Wet	2	EK63006	11/29/06	11/30/06	SW 846 9253	
% Moisture	10.3	0.1	%	1	EK62903	11/28/06	11/29/06	% calculation	
<b>TP2 BGS (6K28012-02) Soil</b>									
Chloride	617	20.0	mg/kg Wet	2	EK63006	11/29/06	11/30/06	SW 846 9253	
% Moisture	1.0	0.1	%	1	EK62903	11/28/06	11/29/06	% calculation	
<b>TP3 BGS (6K28012-03) Soil</b>									
Chloride	191	20.0	mg/kg Wet	2	EK63006	11/29/06	11/30/06	SW 846 9253	
% Moisture	6.7	0.1	%	1	EK62903	11/28/06	11/29/06	% calculation	
<b>TP4 BGS (6K28012-04) Soil</b>									
Chloride	351	20.0	mg/kg Wet	2	EK63006	11/29/06	11/30/06	SW 846 9253	
% Moisture	1.7	0.1	%	1	EK62903	11/28/06	11/29/06	% calculation	
<b>TP5 BGS (6K28012-05) Soil</b>									
Chloride	53.2	20.0	mg/kg Wet	2	EK63006	11/29/06	11/30/06	SW 846 9253	
% Moisture	8.5	0.1	%	1	EK62903	11/28/06	11/29/06	% calculation	

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12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Elke Environmental  
P.O. Box 14167  
Odessa TX, 79768

Project: David H. Arrington  
Project Number: Double Hackle Drake  
Project Manager: Robert Spangler

Fax: (432) 366-0884

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EK62715 - EPA 5030C (GC)**

**Blank (EK62715-BLK1)**

Prepared: 11/27/06 Analyzed: 11/29/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	35.7		ug/kg	40.0		89.2	80-120			
Surrogate: 4-Bromofluorobenzene	32.9		"	40.0		82.2	80-120			

**LCS (EK62715-BS1)**

Prepared: 11/27/06 Analyzed: 11/29/06

Benzene	1.11	0.0250	mg/kg wet	1.25		88.8	80-120			
Toluene	1.09	0.0250	"	1.25		87.2	80-120			
Ethylbenzene	1.19	0.0250	"	1.25		95.2	80-120			
Xylene (p/m)	2.19	0.0250	"	2.50		87.6	80-120			
Xylene (o)	1.13	0.0250	"	1.25		90.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	32.5		ug/kg	40.0		81.2	80-120			
Surrogate: 4-Bromofluorobenzene	39.9		"	40.0		99.8	80-120			

**Calibration Check (EK62715-CCV1)**

Prepared: 11/27/06 Analyzed: 11/29/06

Benzene	44.3		ug/kg	50.0		88.6	80-120			
Toluene	42.9		"	50.0		85.8	80-120			
Ethylbenzene	40.3		"	50.0		80.6	80-120			
Xylene (p/m)	81.3		"	100		81.3	80-120			
Xylene (o)	43.0		"	50.0		86.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	35.2		"	40.0		88.0	80-120			
Surrogate: 4-Bromofluorobenzene	33.1		"	40.0		82.8	80-120			

**Matrix Spike (EK62715-MS1)**

Source: 6K22014-01

Prepared: 11/27/06 Analyzed: 11/29/06

Benzene	1.24	0.0250	mg/kg dry	1.37	ND	90.5	80-120			
Toluene	1.20	0.0250	"	1.37	ND	87.6	80-120			
Ethylbenzene	1.25	0.0250	"	1.37	ND	91.2	80-120			
Xylene (p/m)	2.29	0.0250	"	2.74	ND	83.6	80-120			
Xylene (o)	1.22	0.0250	"	1.37	ND	89.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.0		ug/kg	40.0		92.5	80-120			
Surrogate: 4-Bromofluorobenzene	36.7		"	40.0		91.8	80-120			

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Project: David H. Arrington  
Project Number: Double Hackle Drake  
Project Manager: Robert Spangler

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EK62715 - EPA 5030C (GC)**

**Matrix Spike Dup (EK62715-MSD1)**

Source: 6K22014-01

Prepared: 11/27/06 Analyzed: 11/29/06

Benzene	1.18	0.0250	mg/kg dry	1.37	ND	86.1	80-120	4.98	20	
Toluene	1.17	0.0250	"	1.37	ND	85.4	80-120	2.54	20	
Ethylbenzene	1.24	0.0250	"	1.37	ND	90.5	80-120	0.770	20	
Xylene (p/m)	2.27	0.0250	"	2.74	ND	82.8	80-120	0.962	20	
Xylene (o)	1.22	0.0250	"	1.37	ND	89.1	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	32.5		ug/kg	40.0		81.2	80-120			
Surrogate: 4-Bromofluorobenzene	43.0		"	40.0		108	80-120			

**Batch EK62826 - Solvent Extraction (GC)**

**Blank (EK62826-BLK1)**

Prepared: 11/28/06 Analyzed: 11/29/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	51.5		mg/kg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	64.6		"	50.0		129	70-130			

**LCS (EK62826-BS1)**

Prepared: 11/28/06 Analyzed: 11/29/06

Carbon Ranges C6-C12	454	10.0	mg/kg wet	500		90.8	75-125			
Carbon Ranges C12-C28	421	10.0	"	500		84.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	875	10.0	"	1000		87.5	75-125			
Surrogate: 1-Chlorooctane	60.1		mg/kg	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	65.0		"	50.0		130	70-130			

**Calibration Check (EK62826-CCV1)**

Prepared: 11/28/06 Analyzed: 11/29/06

Carbon Ranges C6-C12	204		mg/kg	250		81.6	80-120			
Carbon Ranges C12-C28	269		"	250		108	80-120			
Total Hydrocarbons	473		"	500		94.6	80-120			
Surrogate: 1-Chlorooctane	54.6		"	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	64.4		"	50.0		129	70-130			

Environmental Lab of Texas

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Elke Environmental  
P.O. Box 14167  
Odessa TX, 79768

Project: David H. Arrington  
Project Number: Double Hackle Drake  
Project Manager: Robert Spangler

Fax: (432) 366-0884

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EK62826 - Solvent Extraction (GC)**

**Matrix Spike (EK62826-MS1)**

Source: 6K28012-01

Prepared: 11/28/06 Analyzed: 11/29/06

Carbon Ranges C6-C12	596	10.0	mg/kg dry	557	ND	107	75-125			
Carbon Ranges C12-C28	548	10.0	"	557	ND	98.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1140	10.0	"	1110	ND	103	75-125			
Surrogate: 1-Chlorooctane	64.2		mg/kg	50.0		128	70-130			
Surrogate: 1-Chlorooctadecane	65.0		"	50.0		130	70-130			

**Matrix Spike Dup (EK62826-MSD1)**

Source: 6K28012-01

Prepared: 11/28/06 Analyzed: 11/29/06

Carbon Ranges C6-C12	587	10.0	mg/kg dry	557	ND	105	75-125	1.52	20	
Carbon Ranges C12-C28	526	10.0	"	557	ND	94.4	75-125	4.10	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1110	10.0	"	1110	ND	100	75-125	2.67	20	
Surrogate: 1-Chlorooctane	62.2		mg/kg	50.0		124	70-130			
Surrogate: 1-Chlorooctadecane	63.5		"	50.0		127	70-130			

Environmental Lab of Texas

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12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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P.O. Box 14167  
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Project: David H. Arrington  
Project Number: Double Hackle Drake  
Project Manager: Robert Spangler

Fax: (432) 366-0884

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EK62903 - General Preparation (Prep)</b>										
<b>Blank (EK62903-BLK1)</b>				Prepared: 11/28/06 Analyzed: 11/29/06						
% Solids	99.8		%							
<b>Duplicate (EK62903-DUP1)</b>				Source: 6K28001-01 Prepared: 11/28/06 Analyzed: 11/29/06						
% Solids	58.8		%		59.3			0.847	20	
<b>Duplicate (EK62903-DUP2)</b>				Source: 6K28012-01 Prepared: 11/28/06 Analyzed: 11/29/06						
% Solids	89.9		%		89.7			0.223	20	
<b>Batch EK63006 - Water Extraction</b>										
<b>Blank (EK63006-BLK1)</b>				Prepared: 11/19/06 Analyzed: 11/30/06						
Chloride	ND	20.0	mg/kg Wet							
<b>LCS (EK63006-BS1)</b>				Prepared & Analyzed: 11/30/06						
Chloride	91.5	5.00	mg/kg Wet	100		91.5	80-120			
<b>Matrix Spike (EK63006-MS1)</b>				Source: 6K28001-01 Prepared: 11/19/06 Analyzed: 11/30/06						
Chloride	6490	20.0	mg/kg Wet	500	5960	106	80-120			
<b>Matrix Spike Dup (EK63006-MSD1)</b>				Source: 6K28001-01 Prepared: 11/19/06 Analyzed: 11/30/06						
Chloride	6490	20.0	mg/kg Wet	500	5960	106	80-120	0.00	20	
<b>Reference (EK63006-SRM1)</b>				Prepared & Analyzed: 11/30/06						
Chloride	51.0		mg/kg	50.0		102	80-120			

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P.O. Box 14167  
Odessa TX, 79768

Project: David H. Arrington  
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Fax: (432) 366-0884

### Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

*Raland K. Tuttle*

Date:

11/30/2006

Raland K. Tuttle, Lab Manager

Celey D. Keene, Lab Director, Org. Tech Director

Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director

LaTasha Cornish, Chemist

Sandra Sanchez, Lab Tech.

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 432-563-1800.

Environmental Lab of Texas

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## Environmental Lab of Texas

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East  
Odessa, Texas 79768

**Phone: 432-563-1800**  
**Fax: 432-563-1713**

**Project Manager: Robert Spangler**

Project Name: David H. Arginton

**Company Name** **Elke Environmental, Inc.**

Project #: Double Hackle Drake

**Company Address:** 4817 Andrews Hwy

Project Loc:

City/State/Zip: Odessa, TX 79762

**PQ #:**

Telephone No: 432-366-0043

**Fax No: 432-366-0884**

Report Format: ☒ Standard ☐ TRRP ☐ NPDES**Sampler Signature:**

e-mail: [elkeenv@yahoo.com](mailto:elkeenv@yahoo.com)

LAB # (lab use only)		FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers							Matrix		TCLP:		TOTAL:		Analyze For:										RUSH TAT (Pre-Schedule) 24, 48, 72 hrs																																																																																																																																																																																																																																																																																																																																																																										
LAB # (lab use only)									Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> SO <sub>4</sub>	None	Other (Specify)	Dist-Distilling Water at Charge	GW - Groundwater Substrate	Asphalt-Petroleum	Specify Other	1008	1005	1006	1007	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1



# Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

Client: Elke Environ.  
 Date/ Time: 11/28/00 3:50  
 Lab ID #: 6K28012  
 Initials: CU

### Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.0 °C
#2	Shipping container in good condition?	Yes	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present
#5	Chain of Custody present?	Yes	No	
#6	Sample instructions complete of Chain of Custody?	Yes	No	
#7	Chain of Custody signed when relinquished/ received?	Yes	No	
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No	
#11	Containers supplied by ELOT?	Yes	No	
#12	Samples in proper container/ bottle?	Yes	No	See Below
#13	Samples properly preserved?	Yes	No	See Below
#14	Sample bottles intact?	Yes	No	
#15	Preservations documented on Chain of Custody?	Yes	No	
#16	Containers documented on Chain of Custody?	Yes	No	
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below
#18	All samples received within sufficient hold time?	Yes	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes	No	Not Applicable

### Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax  
☐ Client understands and would like to proceed with analysis  
☐ Cooling process had begun shortly after sampling event



Breached liner in North East corner



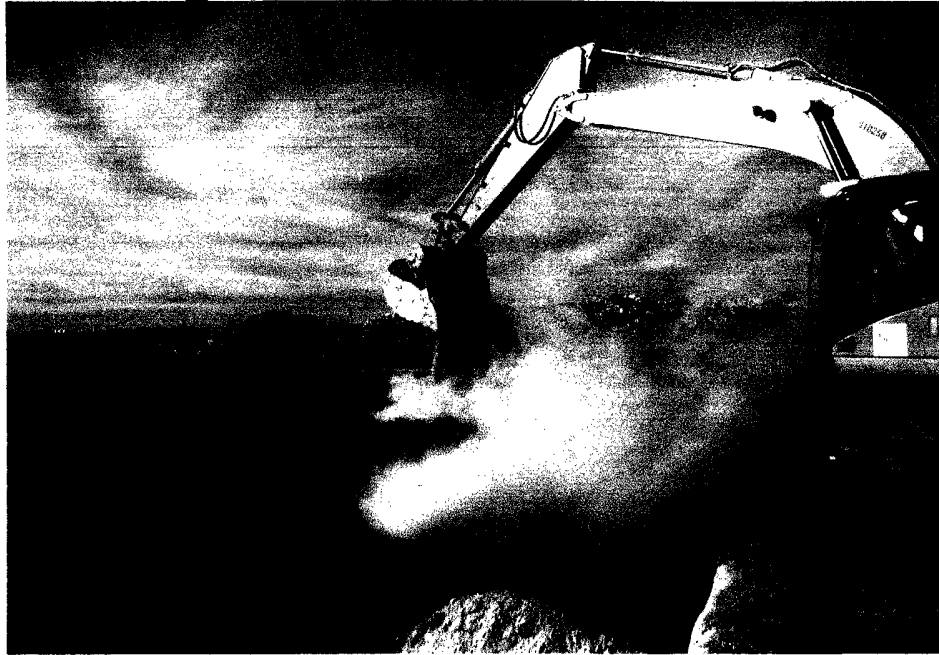
Mixing mud



Delivering product



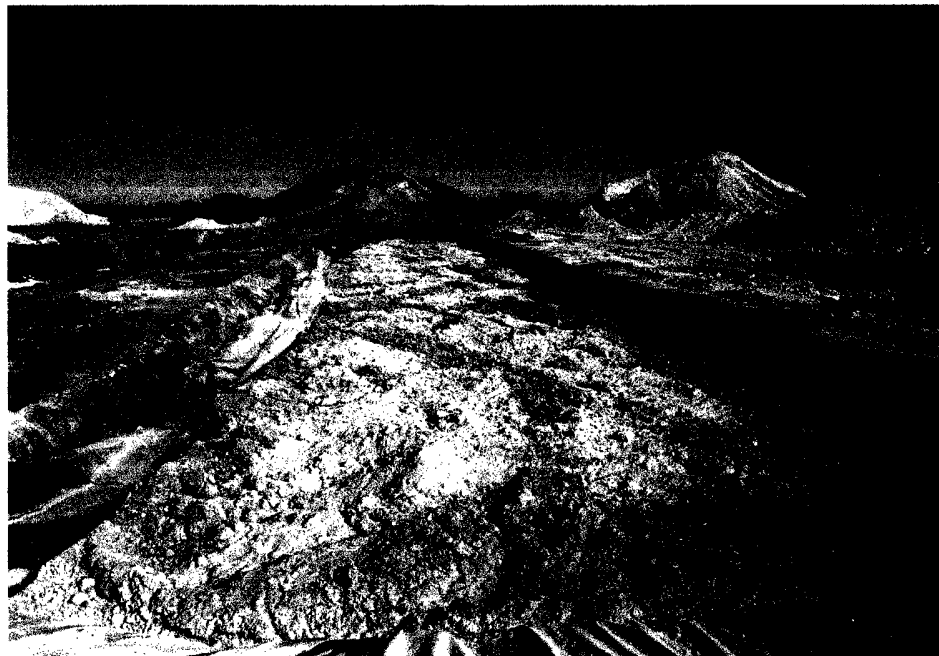
Product mixing pit



Mixing product with mud



Transferring mud to burial pit



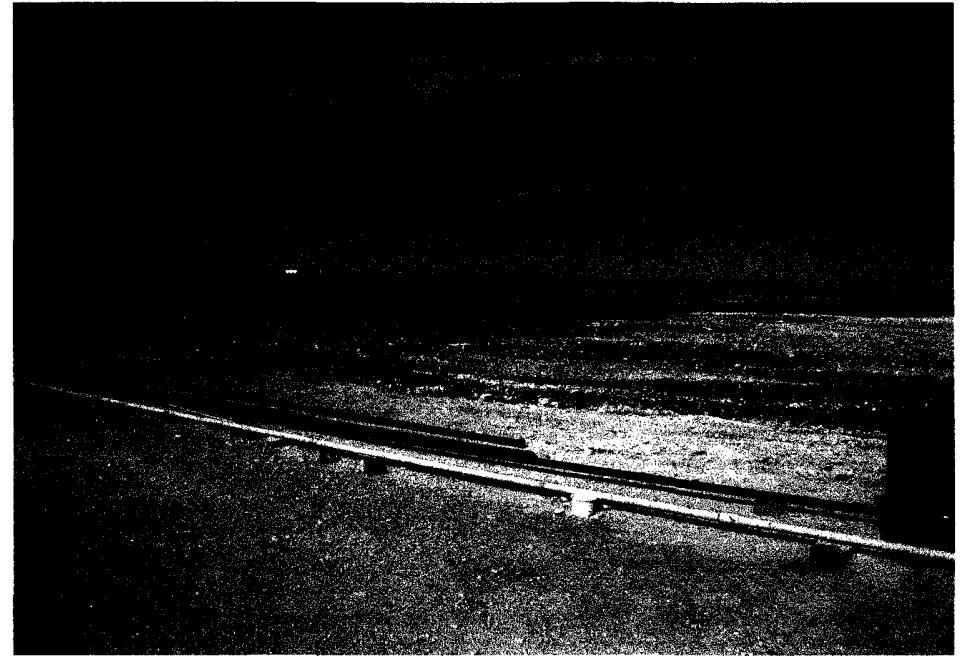
Burial pit after mud and product



Burial pit after mud and product



20 Mil cap on reserve pit



After backfill of reserve pit and burial pit

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
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

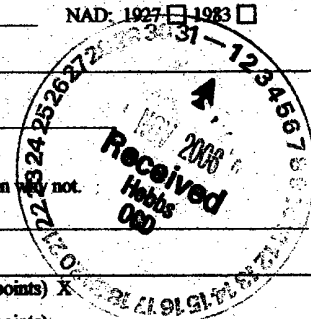
Form C-144  
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: <u>David H. Arrington Oil &amp; Gas</u> Telephone: <u>432-682-6685</u> e-mail address: <u>ann.ritchie@wtor.net</u>		
Address: <u>P. O. Box 953</u> <u>Midland, TX 79702</u>		
Facility or well name: <u>Double Hackle Drake #1</u> API #: <u>30-025-36704</u> U/L or Qtr/Qtr <u>D</u> Sec <u>36</u> T <u>16S</u> R <u>35E</u>		
County: <u>Lea</u> Latitude <u>N 32.88299</u> Longitude <u>W 103.41600</u> NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input checked="" type="checkbox"/> Indian <input type="checkbox"/>		
<b>Pit</b> Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>20</u> mil Clay <input type="checkbox"/> Pit Volume <u>      </u> bbl	<b>Below-grade tank</b> Volume: <u>      </u> bbl Type of fluid: <u>      </u> Construction material: <u>      </u> Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. <u>      </u>	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) <u>GW = 50'</u>	Less than 50 feet (20 points) X 50 feet or more, but less than 100 feet (10 points) 100 feet or more (0 points)	
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No (0 points) X	
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more (0 points) X	
	<b>Ranking Score (Total Points)</b> 20 points	

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility       . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface        ft. and attach sample results.

(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: A burial pit will be constructed and lined with a 20mil impervious liner. The drilling pit contents will be mixed with Elke Environmental Solidification Product at a 20 mud to 1 ratio to solidify the contents. After all mixed contents are placed in the burial pit, the contents will be covered with a 20 mil impervious liner with a minimum of 3 ft. overlap on all sides and a minimum of 3 ft. below ground level. The burial pit will then be covered with clean native soil and domed to prevent pooling. 5 bottom sample points will be taken after the pit contents are removed and a final report will be given at the end of the job. Start of job is 11-1-06.


I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☒.

Date: 11-1-06

Printed Name/Title

Logan Anderson / Agent

Signature



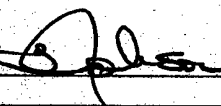
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title

L. Johnson - Engr. ENGR

Signature



Date: 11-1-06