

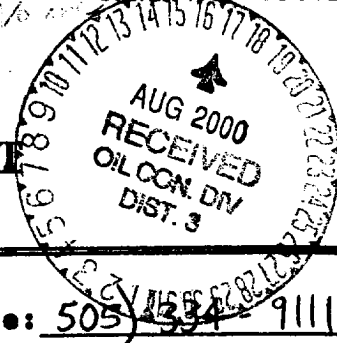
District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Box 1980, Hobbs, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT



Operator: KOCH Exploration Co. Telephone: 505-433-9111
Address: P.O. Box 489 Aztec, NM 87410
Facility or: Lambe 1 A
Well Name _____
Location: Unit or Qtr/Qtr Sec D Sec 21 T 31N R 10W county San Juan
Pit Type: Separator ☒ Dehydrator _____ Other _____
Land Type: BLM ☒, State _____, Fee _____, Other _____

Pit Location: Pit dimensions: length 25', width 25', depth 19'
(Attach diagram) Reference: wellhead ☒, other _____
Footage from reference: 90'
Direction from reference: 10° Degrees _____ East North ☒
_____ of _____
☒ West South _____

Depth To Ground Water: Less than 50 feet (20 points)
(Vertical distance from 50 feet to 99 feet (10 points)
contaminants to seasonal Greater than 100 feet (0 Points) 10
high water elevation of
ground water)

Wellhead Protection Area: Yes (20 points)
(Less than 200 feet from a private No (0 points) 0
domestic water source, or; less than
1000 feet from all other water sources)

Distance To Surface Water: Less than 200 feet (20 points)
(Horizontal distance to perennial 200 feet to 1000 feet (10 points)
lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) 0
irrigation canals and ditches)

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 7/9/96 Date Completed: 8/28/97
Remediation Method: Excavation ☒ Approx. cubic yards 450
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation ☐
Other _____

Remediation Location: Onsite ☒ Offsite ☐
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: Contaminated soil removed, as per equipment limits, and placed in an on-site landfarm. Two auger holes drilled to determine contamination extent.

Ground Water Encountered: No ☒ Yes ☐ Depth _____

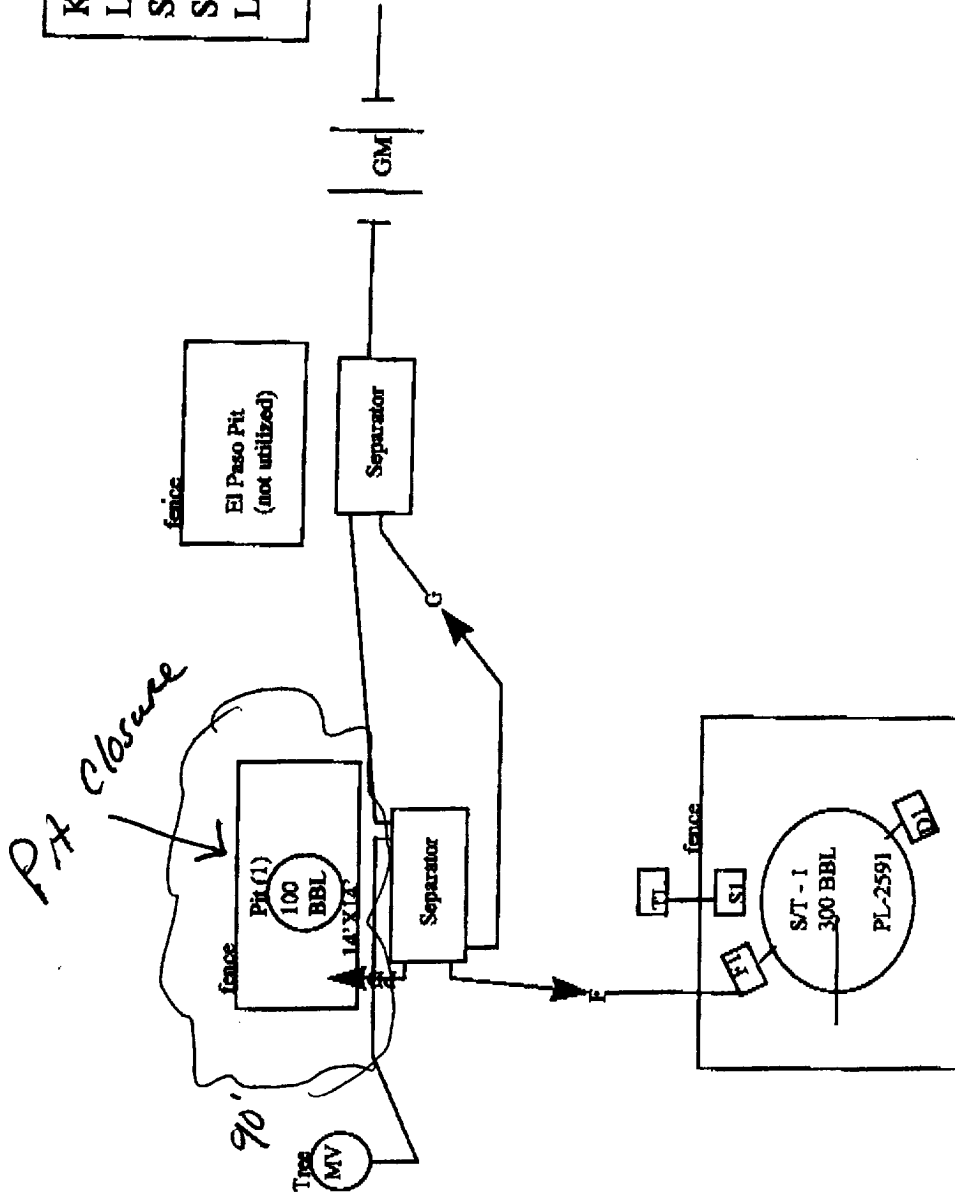
Final Pit: Sample location pit-bottom, center
Closure Sampling: _____
(if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth 19'
Sample date 7/9/96 Sample time 1200

Sample Results
Benzene(ppm) 0.006
Total BTEX(ppm) 4.81
Field headspace(ppm) 1169
TPH 3010

Ground Water Sample: Yes ☐ No ☒ (If yes, attach sample results)

HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF
DATE 8/10/00
SIGNATURE Donald L. Johnson PRINTED NAME DONALD L. Johnson
AND TITLE Operations Manager

Koch Exploration Co.
 Lambe 1A - NW 1/4 - NW 1/4
 Sec. 21 - T31N - R-10W
 San Juan County NM
 Lease NO. NM-03187
 Revised 4/17/97



General sealing of valves, sales by tank gauging.
 Production phase. Drain valve, D1, and sales valve, S1, sealed closed.
 Sales phase. the tank from which sales are being made will be isolated by sealing closed the drain valve, D1, fill valve, F1, during sales.
 Draining phase. the tank being drained will be isolated by sealing closed the sales valve, S1, and fill valve, F1, during drain off.

This lease is subject to the site security plan for the Blanco gas field. the plan is located at:
 Koch Exploration Co.
 610 S Main Aztec, New Mexico

7/8/96 Lambeth

Came to location and removed Fence.

7/9/96 Lambeth

Began excavating and sampling pit.

Pit Data:

#	Description	Result
1	E-wall 2'	654 ppm
2	" 5'	797
3	" 7-8'	617
4	" 9-10'	2500+
5	" 12-13'	1059
6	17-18' Center	1631
7	18-19' Center	1169 *
8	N-b-center	2500+
9	N-top-center	59
10	W-bottom-center	8.9
11	W-top-center	8.2
12	S-b-center	8.2
13	S-top-center	11.8

* To LAB for Analysis: LAMB-905 TPH=3010 ppm

B = 0.0063 ppm

T = 0.1310 " total =

E = 0.188 " 4.809 ppm
 W-X = 3.5243 " 0-X = 0.0593 "

OFF: (505) 325-5667



LAB: (505) 325-1556

TOTAL PETROLEUM HYDROCARBONS

Attn: **Shawn Adams**
 Company: **Contract Environmental Services, Inc.**
 Address: **P.O. Box 505**
 City, State: **Kirtland, NM 87417**

Date: **12-Jul-96**
 COC No.: **4201**
 Sample No. **11482**
 Job No. **2-1000**

Project Name: **Koch Exploration Company - Lambe #1A**
 Project Location: **LAMB-905; 18-19' Bottom Center**
 Sampled by: **SA**
 Analyzed by: **HR**
 Sample Matrix: **Soil**

Date: **9-Jul-96** Time: **12:00**
 Date: **11-Jul-96**

Laboratory Analysis

Parameter	Result	Detection Limit	Unit of Measure	Method
Total Petroleum Hydrocarbons, TPH	3010 ✓	25	mg/kg	EPA Method 418.1

Quality Assurance Report**Laboratory Fortified Blank/Spike Soil**

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
Laboratory Fortified Blank Soil - QCBS2	< 25	< 25	mg/kg
Laboratory Fortified Spike Soil - QCSS1	936	828 - 1024	mg/kg

Duplication

Laboratory Identification	(% RSD)	Limit (% RSD)
11481-4201	1.2	15.0

Approved by: Date: **7/12/96**

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Shawn Adams**
Company: **Contract Environmental Services, Inc.**
Address: **P.O. Box 505**
City, State: **Kirtland, NM 87417**

Date: **12-Jul-96**
COC No.: **4201**
Sample No. **11482**
Job No. **2-1000**

Project Name: **Koch Exploration Co. - Lamb #1A**
Project Location: **LAMB-905; 18-19' Bottom Center**
Sampled by: **SA**
Analyzed by: **HR**
Sample Matrix: **Soil**

Date: **9-Jul-96** Time: **12:00**
Date: **11-Jul-96**

Laboratory Analysis

Parameter	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	6.3	ug/kg	0.2	ug/kg
Toluene	131.0	ug/kg	0.2	ug/kg
Ethylbenzene	188.1	ug/kg	0.2	ug/kg
m,p-Xylene	3524.3	ug/kg	0.2	ug/kg
o-Xylene	959.3	ug/kg	0.2	ug/kg
TOTAL		4809.0		ug/kg

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Ja G*
Date: *7/12/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.	
Name: <u>Dr. Johnson</u>		Title:	
Company: <u>Acme Environmental Co.</u>		Company: <u>Contract Environmental Services, Inc.</u>	
Address: <u>PO Box 469</u>		Mailing Address: <u>PO Box 505</u>	
City, State, Zip: <u>Albuquerque NM 87110</u>		City, State, Zip: <u>Albuquerque NM 87119</u>	
Sampling Location: <u>Area # 3A</u>		Telephone No.: <u>325-1192</u>	
Telefax No.:		Telex No.:	

Sample ID	LAB ID	ANALYSIS REQUESTED	
		GC/MS	GC/MS
1A08-900	1A08-900	X	X
1A08-905	1A08-905	X	X
1A08-900	1A08-900	X	X

Sample Identification	Sample		Matrix	PRES.	Number of Containers	REPORT RESULTS TO
	DATE	TIME				
1A08-900	7/16/90	1:50 P	Soil	no	1	RESULTS TO
1A08-905	7/16/90	12:00	"	"	1	
1A08-900	7/16/90	3:00 P	"	"	1	

Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

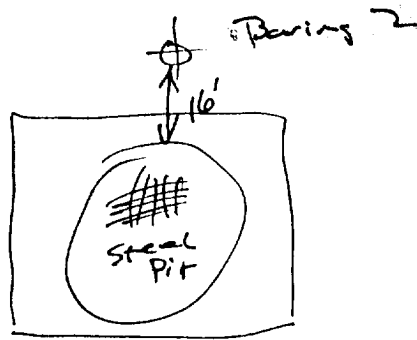
Method of Shipment:	24-48 Hours	10 Working Days	Special Instructions:
Authorized by:	Date:	Date:	Date:

Koch

		EPA 418.1	RESULTS		WEST	6/20/97
			PERM	ND		
LAMB-202	Lambe 1A	Boring 1	35-37'	" "	EAST	6/20/97
LAMB-201	" "	Boring 2	30-32'	ND	EAST	6/20/97
LAMB-205	Lambe 1	Anger 1	35-37'	20/0	EAST	6/20/97
LAMB-206	" "	Anger 2	15-22'	ND	WEST	6/20/97
WALK-200	Walker 2	Anger	20-27'	S2	Center	6/20/97
CAN-203	Caine 1A	Anger 1	30-32'	ND	East	6/20/97
CAN-204	" "	Anger 2	15-22'	ND	West	6/20/97

BOIS ORDERED
37' Encountered SS

~~WEST~~
~~TRAIL~~



KOCH
LUMBEIA
6-20-97

→

DEPTH

PI (PPM)



BORING 1
(SEE DRAWING)

FREE

Drill

Documented 18' from
previous time
wall that side clean
also

1
3
5-7
7
9
10-12
11

13
15-17
17

19-22' clean sand
med. grain

7.0

27 BLOWS
1st Sample

23

25-27' clean sand

3.0

2nd Sample 23 BLOWS

27

29-32'

clay sand - some staining

3.0

21 BLOWS

31

33

35-37

B.P.M.

22 BLOWS

~~39~~
~~41~~
~~43~~
~~45~~

bottom sample @ 35-37 packed in 4 oz. glass jar
for EAA 418.1 test. No visible staining / odor
still in sand at bottom.



Finish TOH 12:00
 Koch
 Lambert
 6/20/87
 Soil Auger - DE
 90' GW
 Caine 1A
 Lambel
 Walker 2
 100' GW
 145' GW
 200' GW

*NOTE - OFFSET DUE TO STEEL TANK BEING IN OLD EXCAVATION
 MAO DRILL 2 BORINGS OFFSET. IN ORIGINAL EXCAVATION
 WAS TAKEN TO 18' Depth. BACKFILLED 15' THEN STEEL TANK
 installed.

Soil Depth	(ppm) Pio		Sand		Pio (ppm)	
2				32		
4				34		
6				35-37	9.0	44 Blows
8				36		
10-12	31.0	29 Blows		37 TD STOP		
12				38		
14				39		
15-17	13.0	29 Blows		40		
16				41		
18				42		
20-22	30.0	28 Blows		43		
22				44		
24				45		
25-27	8.0	23 Blows		46		
26				47		
28				48		
30-32	10.0	23 Blows		49		

Bottom sample packed into 4 oz. sample jar LAB-201
 Submitted to Lab for EPA 410.1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: **Shawn Adams**
Company: **Contract Environmental Services, Inc.**
Address: **P.O. Box 3376**
City, State: **Farmington, NM 87499**

Date: **23-Jun-97**
COC No.: **4316**
Sample No.: **15055**
Job No.: **2-1000**

Project Name: **Koch Exploration - Lambe 1A**
Project Location: **LAMB-202, West Boring, 35-37' deep**
Sampled by: **SA** Date: **20-Jun-97** Time: **13:29**
Analyzed by: **HR** Date: **23-Jun-97**
Sample Matrix: **Soil**

Laboratory Analysis

Parameter	Results as Received	Limit of Quantitation	Unit of Measure	Method
Total Petroleum Hydrocarbons, TPH	ND	25	mg/kg	EPA Method 418.1

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
Laboratory Fortified Blank Soil - QCBS2	ND	ND	mg/kg
Laboratory Fortified Spike Soil - QCSSI	878	828 - 1024	mg/kg

Duplication

Laboratory Identification	RPD	Limit RPD
15053-4316	3.8	15.0

Approved by: 

Date: **6/23/97**

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Shawn Adams*
Company: *Contract Environmental Services, Inc.*
Address: *P.O. Box 3376*
City, State: *Farmington, NM 87499*

Date: *23-Jun-97*
COC No.: *4316*
Sample No.: *15054*
Job No.: *2-1000*

Project Name: *Koch Exploration - Lamb 1A*
Project Location: *LAMB-201; East Boring, 35-37' deep*
Sampled by: SA Date: *20-Jun-97* Time: *11:47*
Analyzed by: HR Date: *23-Jun-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Limit of Quantitation	Unit of Measure	Method
<i>Total Petroleum Hydrocarbons, TPH</i>	<i>ND</i>	<i>25</i>	<i>mg/kg</i>	<i>EPA Method 418.1</i>

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
<i>Laboratory Fortified Blank Soil - QCBS2</i>	<i>ND</i>	<i>ND</i>	<i>mg/kg</i>
<i>Laboratory Fortified Spike Soil - QCSS1</i>	<i>878</i>	<i>828 - 1024</i>	<i>mg/kg</i>

Duplication

Laboratory Identification	RPD	Limit RPD
<i>15053-4316</i>	<i>3.8</i>	<i>15.0</i>

Approved by: *[Signature]*
Date: *6/23/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

CHAIN OF CUSTODY RECORD

Date:

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

TECHNOLOGIES, LTD.

LAB: (505) 325-5667 • FAX: (505) 325-6256

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
---------------	-----------------	--------------	----------------	--------------------

KOCH Exploration Company

Risk Analysis

Prepared by:

Contract Environmental Services, Inc.

Prepared for:

Oil Conservation Division - District III

Date: 8/4/97

Location: Lambe 1A-Separator Pit Unit-D, Sec21, T31N, R10W

Lease Number: NM-003187

Resources

Ground Water: 90 feet and 180 feet (cathodic protection data)

Closest Surface Water: No down gradient perennial bodies within 1000 feet (visual inspection of the area)

Water Sources: No private, domestic water source is located within 1000 feet of this site.

Risk Management

Natural Barriers: Natural soil permeability is one barrier that will protect ground water from site contamination.

Additional Investigation: Two auger holes were drilled on this site. Each hole was drilled within 18 feet of the original earthen pit. The two holes, the West boring and the East boring, were drilled to 37 feet. Field-testing and laboratory analysis was done on these test holes. The results of this analysis and testing are shown in Table 1 on the following page. All data is supported with lab result sheets and field data sheets found in this closure package.

Risk Analysis

Contract Environmental Services, Inc.

Post Office Box 3376

Farmington, New Mexico 87499

Additional
Investigation: (continued)

Table 1. Auger hole field and laboratory results summary.

Auger Hole	Sample			
	Depth	Field Headspace Results	Laboratory Results	Remarks
	(feet)	(PPM)	(PPM)	
West boring	20-22	7.0	TPH - ND	
	25-27	3.0		
	30-32	3.0		
	35-37	8.0		
East boring	10-12	31.0	TPH - ND	
	15-17	13.0		
	20-22	30.0		
	25-27	8.0		
	30-32	10.0		
	35-37	9.0		

ND - not detected at 25 PPM or above

Risk

The following table and conclusion summarize the risk this contamination sources poses to the ground water.

Table 2. Total risk table.

RISK	CHOICE
Extremely Low	X
Low	
Moderate	
High	

The ground water at this site is at almost no danger of being impacted by contamination from this site. From the low laboratory and field-test results for the two auger holes it is concluded that the **risk of ground water contamination is extremely low.**

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: **Shawn Adams**
 Company: **Contract Environmental Services, Inc.**
 Address: **P.O. Box 3376**
 City, State: **Farmington, NM 87499**

Date: **2-Sep-97**
 COC No.: **4353**
 Sample No.: **15933**
 Job No.: **2-1000**

Project Name: **Koch Exploration - Lambe 1A**
 Project Location: **LAMB-605; Soil Farm, Comp. 1, 2, 3**
 Sampled by: **SAA/PRC** Date: **26-Aug-97** Time: **16:00**
 Analyzed by: **DC/HR** GRO Date: **28-Aug-97**
 Sample Matrix: **Soil** DRO Date: **29-Aug-97**

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Gasoline Range Organics (C5 - C9)	ND	mg/kg	0.5	mg/kg
Diesel Range Organics (C10 - C28)	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
Gasoline Range (C5 - C9)	ND	ppb	1,801	1,752	2.8	15%
Diesel Range (C10 - C28)	ND	ppm	200	197	1.5	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Gasoline Range (C5-C9)	91	101	(80-120)	10	20%
Diesel Range (C10-C28)	80	81	(75-125)	1	20%

Method: SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas ChromatographyApproved by: Date: **9/2/97****P.O. BOX 2606 • FARMINGTON, NM 87499**

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: **Shawn Adams**
 Company: **Contract Environmental Services, Inc.**
 Address: **P.O. Box 3376**
 City, State: **Farmington, NM 87499**

Date: **2-Sep-97**
 COC No.: **4353**
 Sample No.: **15934**
 Job No.: **2-1000**

Project Name: **Koch Exploration - Lamb 1A**
 Project Location: **LAMB-606; Soil Farm, Comp. 4, 5, 6**
 Sampled by: **SAA/PRC** Date: **26-Aug-97** Time: **16:00**
 Analyzed by: **DC/HR** GRO Date: **28-Aug-97**
 Sample Matrix: **Soil** DRO Date: **29-Aug-97**

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	ND	mg/kg	0.5	mg/kg
<i>Diesel Range Organics (C10 - C28)</i>	7	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Gasoline Range (C5 - C9)</i>	ND	ppb	1,801	1,752	2.8	15%
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	197	1.5	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Gasoline Range (C5-C9)</i>	91	101	(80-120)	10	20%
<i>Diesel Range (C10-C28)</i>	80	81	(75-125)	1	20%

Method: SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:

Date: **9/2/97****P.O. BOX 2606 • FARMINGTON, NM 87499**

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Purchase Order No.:		Job No.	
SEND INVOICE TO	Name		Don Johnson
	Company		Koch Exploration
	Address		PO Box 489
	City, State, Zip		AZTEC NM 87410
REPORT RESULTS TO			
Name		SHAWN ADAMS	Title
Company		CONTRACT ENVIRONMENTAL SERVICES, INC.	
Mailing Address		PO BOX 3376	
City, State, Zip		FARMINGTON NM 87499	
Telephone No.		325-1198	
		Telefax No.	

SAMPLER	SAMPLE IDENTIFICATION	SAMPLE		MATRIX	PRES.	Number of Containers	4 DE. JAL	EPA 8015 M10	LAB ID
		DATE	TIME						
CAINE 1A LAMBE 1 Sampler: SAA/PRC	LAMB-605, LAMBE 1A, COMP. 1, 2, 3, 4, 5, 6	8/26/77	4:00	SOIL	N/A	1	X	X	151733-4135
	LAMB-606, LAMBE 1A, COMP. 4, 5, 6		4:00	"	"	1	X	X	151734
	LAMBE-607, LAMBE 2, COMP. 1, 2, 3		4:30	"	"	1	X	X	151735
	LAMBE-608, LAMBE 2, COMP. 4, 5, 6		4:30	"	"	1	X	X	151736
	CAINE-609, CAINE 1A, COMP. 1, 2, 3		5:00	"	"	1	X	X	151737
	LAMB-610, LAMBE 1, COMP. 1, 2, 3, 4, 5, 6	8/26/77	5:50	"	"	1	X	X	151738

Relinquished by: <i>[Signature]</i>	Date/Time	Received by: <i>[Signature]</i>	Date/Time
	Date/Time	Received by:	Date/Time
	Date/Time	Received by:	Date/Time

Method of Shipment:		Rush	24-48 Hours	10 Working Days	Special Instructions:
Authorized by: <i>[Signature]</i>	Date: <i>6.17.67</i>				
(Client Signature <u>Must</u> Accompany Request)					