

**PIT
REMEDIATION
&
CLOSURE
REPORT**

AMERADA HESS CORPORATION

OIL CONSERVATION DIVISION
RECEIVED

94 AUG 4 AM 8 50

P. O. BOX 840
SEMINOLE, TEXAS 79360
915-758-6700

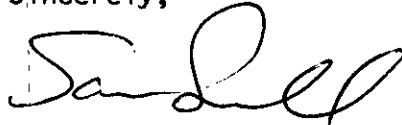
August 4, 1994

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Enclosed is the Pit Remediation and Closure Report for the Bagtower (Caprock) landfill along with supporting data. Pit samples CAP NE-1, CAP NW-2 CAP C-3, CAP SE-4 and CAP SW-5 were collected after the site was excavated, prior to remediation and backfilling. Pit samples CAP NE-1A, CAP C-3A and CAP SE-4A were collected after remediation and backfilling. All samples were collected from depths of 6-8", as approved by the NMED and NMOCD, due to the rocky nature of the site. The disposition of the waste material was approved by the NMOCD.

If you have any questions please contact the undersigned at (915)758-6741.

Sincerely,



Sam Small
Environmental Coordinator

SS/ra

xc: NMOCD - District I
P. O. Box 1980
Hobbs, New Mexico 88241

Roy Wheeler/Al Young
K. Kriter
W. McNeil
J. Pitzer w/o attachments

1000 Rio Brazos Rd, Aztec, NM 87410

Santa Fe, New Mexico 87504-2088

(Revised 3/9/94)

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: FEB. 1994 Date Completed: JUNE, 1994

Remediation Method: Excavation ☒ Approx. cubic yards 510
(Check all appropriate sections) Landfarmed ☐ Insitu Bioremediation ☐
Other WASTE MATERIALS HAULED TO DISPOSAL

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

General Description Of Remedial Action: WASTE MATERIALS WERE REMOVED FROM
PIT FOR DISPOSAL. SAMPLES OF SOIL FROM PIT WERE ANALYZED FOR BTEX, TPH AND TCLP.
CONTAMINATED SOIL WAS DILUTED WITH FRESH SOIL AND THE PIT WAS BACKFILLED.

Ground Water Encountered: No ☒ Yes ☐ Depth

Final Pit: Sample location SEE EXHIBIT II

Closure Sampling:
(if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth 6 IN. TO 8 IN.

Sample date Sample time

Sample Results

Benzene(ppm)

SEE ATTACHED
ANALYSES

Total BTEX(ppm)

Field headspace(ppm)

TPH

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

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8/3/94

SIGNATURE



PRINTED NAME
AND TITLE

SAMUEL W. SMALL
ENVIRONMENTAL COORDINATOR

AMERADA HESS CORPORATION
Waste Piles

<u>Caprock</u>		
1.	Wood	20x25x6 111.1 yds ³
2.	Concrete	36x18x5 120.0 yds ³
3.	Crystallized black material	4x4x2 1.2 yds ³
4.	Transite pipe	9x6x2 4.0 yds ³
5.	Tires	12x8x2 7.0 yds ³
6.	Rubber belts and gaskets	9x12x3 12.0 yds ³
7.	Plastic thread protectors & plastic	9x9x2 6.0 yds ³
8.	Plastic drums	(2) 2.0 yds ³
9.	Fiberglass pipe and tank	12x9x3 12.0 yds ³
10.	Metal	15x75x5 208.0 yds ³
11.	General trash, paper & materials	12x12x5 26.7 yds ³
Total		510.0 yds ³

<u>Monument</u>		
1.	Wood	22x15x5 61.1 yds ³
2.	Tires	10x12x2 8.9 yds ³
3.	Rubber belts, hoses, & plastic drums	9x10x3 10.0 yds ³
4.	Fiberglass & PVC pipe	5x6x2 2.2 yds ³
5.	Paint buckets	4x6x2 1.8 yds ³
6.	General trash paper & materials	25x12x5 55.6 yds ³
7.	Metal	25x16x5 74.1 yds ³
8.	Transite pipe	5x6x3 3.3 yds ³
Total		217.0 yds ³

- Item 10:

Metal sold to Permian Metals of Odessa, Tx. for recycling.

- Items 1-9 & 11:

All materials transported by Waste Management of New Mexico to Hobbs Municipal Landfill, Hobbs, NM for disposal.

EXHIBIT II

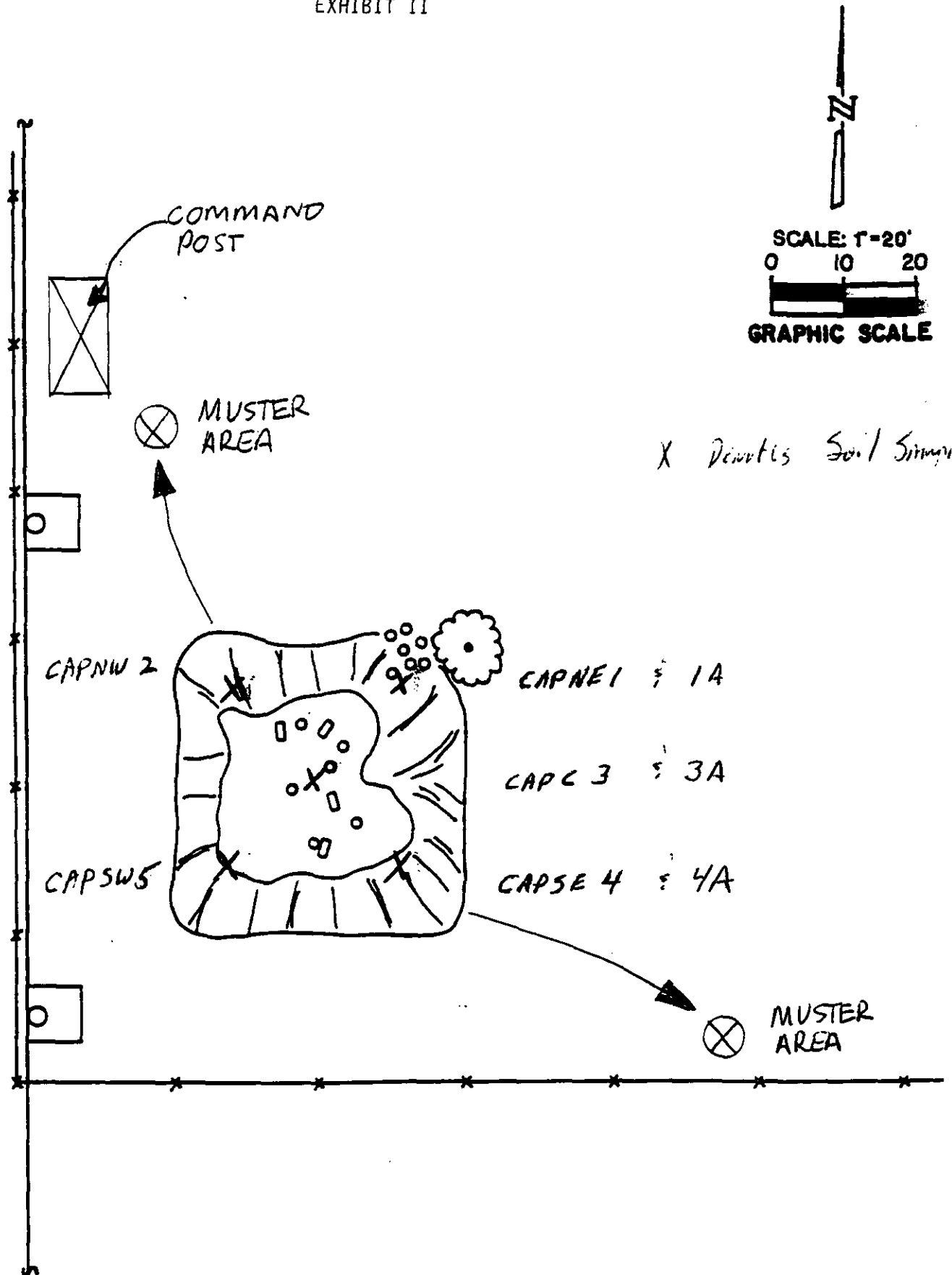


FIGURE 10.1 - SITE MAP DEPICTING EVACUATION ROUTES & MUSTER



ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4889 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Amerada Hess Corp.- Seminole
Address: PO Box 840
City, State: Seminole, TX 79360

Date: 8/3/94
Lab #: H1761
PO: 623-3004

Project Name: Bagtower Trash Pit

Location: Lea County, NM

Sampled by: SS

Date: 8/2/94

Time: 1:30

Analyzed by: MF

Date: 8/3/94

Time: 9:00

Sample Type: soil

Sample Condition: Plastic Units: mg/kg

Samp #	FILED CODE	TRPHC
1	CAP NE 1A	339.3
2	CAP C 3A	272.1
3	CAP SE 4A SE	198.5

QC Recovery	400.3
QC Spike	405.9
Accuracy	98.6%

Methods - INFRARED SPECTROSCOPY
- EPA SW-846; 418.1, 3540 OR 3510


Michael R. Fowler

8-3-94
Date

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

Analysis Date: 04/29/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TA#	Field Code	TRPHC (ppb)	MTBE (ppb)	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	M,P,O XYLENE (ppb)	TOTAL BTX (ppb)
T20894	CAP NE 1	38,150,260	21	18	7	<1	21	46
T20895	CAP NW 2	401,787	<1	1	<1	<1	<1	1
T20896	CAP C 3	6,111,428	<1	18	12	4	33	67
T20897	CAP SE 4	4,309,837	<1	4	1	<1	5	10
T20898	CAP SW 5	732,877	<1	11	27	50	329	417
QC	Quality Control	163,380	185	181	189	190	570	

Detection Limit

5,000

1

1

1

1

1

% Precision

% Extraction Accuracy

% Instrument Accuracy

106

70

95

METHODS: EPA SW 846-8020; EPA 418.1.

BTEX SPIKE AND QC: Sample and Blank Spiked with 200 ppb EACH VOLATILE ORGANICS.

TRPHC SPIKE AND QC: Sample spiked with 327,760 ppb TRPHC and Blank spiked with 163,880 ppb TRPHC.

Director, Dr. Blair Leftwich

Director, Dr. Bruce McDonell

Date

5-17-94

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ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

Analysis Date: 05/01/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP METALS

TA#	Field Code	As (ppm)	Se (ppm)	Cr (ppm)	Cd (ppm)	Pb (ppm)	Ba (ppm)	Ag (ppm)	Hg (ppm)
EPA LIMIT =									
T20894	CAP NE 1	5.0	1.0	5.0	1.0	5.0	100	5.0	0.20
QC	Quality Control	<0.1	<0.2	<0.1	<0.1	0.3	1.6	<0.01	<0.001
		5.1	1.0	5.0	1.0	5.0	98.7	5.0	0.020
Detection Limit									
		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.001
% Precision									
		100	100	100	100	100	100	100	100
% Extraction Accuracy									
		114	104	101	105	99	93	96	100
% Instrument Accuracy									
		101	100	100	100	100	99	99	100

METHODS: EPA SW 846-1311, 6010, 7471.

TCLP METALS QC: Blank Spiked with 5.0 ppm As, Cr, Pb, Ag; 1.0 ppm Se, Cd; 100 ppm Ba; 0.020 ppm Hg.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

Date

5-17-94

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May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

ANALYTICAL RESULTS FOR

CARTER & BURGESS

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

Analysis Date: 05/05/94

Sampling Date: 04/27/94

Sample Condition: I & C

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP Semi-Volatiles (ppm)	EPA Limit	Detection Limit	T20894 CAP NE 1	%P	%EA	QC	%IA
Pyridine	5.0	0.001	ND	95	111	0.636	127
1,4-Dichlorobenzene	7.5	0.001	ND	96	106	0.583	116
o-Cresol	200.0	0.001	ND	95	112	0.615	123
m,p-Cresol	200.0	0.001	ND	96	108	1.154	115
Total Cresol	200.0	0.001	ND	96	110	1.769	118
Hexachloroethane	3.0	0.001	ND	97	109	0.599	119
Nitrobenzene	2.0	0.001	ND	98	116	0.639	127
Hexachlorobutadiene	0.5	0.001	ND	102	105	0.565	113
2,4,6-Trichlorophenol	2.0	0.001	ND	97	90	0.469	93
2,4,5-Trichlorophenol	400.0	0.001	ND	99	96	0.495	99
2,4-Dinitrotoluene	0.13	0.001	ND	97	103	0.559	111
2,4-D	10.0	0.01	ND	97	98	0.410	82
Hexachlorobenzene	0.13	0.001	ND	98	114	0.620	124
2,4,5-TP	1.0	0.01	ND	97	106	0.495	99
Pentachlorophenol	100.0	0.001	ND	112	92	0.451	90
Lindane	0.4	0.001	ND	98	121	0.535	107
Total Heptachlor	0.008	0.001	ND	98	111	1.042	104
Endrin	0.02	0.001	ND	83	116	0.517	103
Methoxychlor	10.0	0.001	ND	111	95	0.439	87
Chlordane	0.03	0.0002	ND	100	105	0.0022	110
Toxaphene	0.5	0.005	ND	100	114	0.0214	107

% RECOVERY

2-Fluorophenol SURR	115
Phenol-d5 SURR	109
Nitrobenzene-d5 SURR	88
2-Fluorobiphenyl SURR	71
2,4,6-Tribromophenol SURR	82
Terphenyl-d14 SURR	89

Methods: EPA SW 846-1311, 8270.

ND - Not Detected



Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

DATE


TRACE ANALYSIS, INC.

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue
Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
CARTER & BURGESS, INC.
Attention: J. D. McNamara
505 N. Big Spring, Suite 301A
Midland, TX 79701

May 16, 1994
Receiving Date: 04/29/94
Sample Type: Soil
Project No: 93903601L
Project Location: Caprock, NM

Analysis Date: 05/04/94
Sampling Date: 04/27/94
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: Amerada Hess
Caprock Disposal

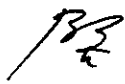
TCLP VOLATILES (ppm)	EPA LIMIT	T20894 CAP NE 1	Detection Limit	QC	%P	%EA	%IA
Vinyl chloride	0.20	ND	0.002	0.058	110	102	116
1,1-Dichloroethene	0.70	ND	0.002	0.059	104	108	118
Methyl Ethyl Ketone	200.0	ND	0.020	0.064	101	118	128
Chloroform	6.00	ND	0.020	0.054	118	100	108
1,2-Dichloroethane	0.50	ND	0.002	0.045	105	90	90
Benzene	0.50	ND	0.002	0.063	116	114	126
Carbon Tetrachloride	0.50	ND	0.020	0.045	106	84	90
Trichloroethene	0.50	ND	0.002	0.049	103	96	98
Tetrachloroethene	0.70	ND	0.002	0.051	115	96	102
Chlorobenzene	100.00	ND	0.002	0.048	104	88	96
1,4-Dichlorobenzene	7.50	ND	0.002	0.046	100	98	92

% Recovery

1,2-Dichloroethane	84
Toluene-d8	107
4-Bromofluorobenzene	91

ND = Not Detected

METHODS: EPA SW 846-1311, 8240.



Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

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ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

Analysis Date: 05/01/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP METALS

TA#	Field Code	As (ppm)	Se (ppm)	Cr (ppm)	Cd (ppm)	Pb (ppm)	Ba (ppm)	Ag (ppm)	Hg (ppm)
EPA LIMIT =									
T20895	CAP NW 2	5.0	1.0	5.0	1.0	5.0	100	5.0	0.20
QC	Quality Control	<0.1	<0.2	<0.1	<0.1	3.0	2.1	<0.01	<0.001
		5.1	1.0	5.0	1.0	5.0	98.7	5.0	0.020
Detection Limit									
		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.001
% Precision									
		100	100	100	100	100	100	100	100
% Extraction Accuracy									
		113	112	102	108	102	98	92	100
% Instrument Accuracy									
		101	100	100	100	100	99	99	100

METHODS: EPA SW 846-1311, 6010, 7471.

TCLP METALS QC: Blank Spiked with 5.0 ppm As, Cr, Pb, Ag; 1.0 ppm Se, Cd; 100 ppm Ba; 0.020 ppm Hg.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

Date

5-17-94

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May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

ANALYTICAL RESULTS FOR

CARTER & BURGESS

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

Analysis Date: 05/05/94

Sampling Date: 04/27/94

Sample Condition: I & C

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP Semi-Volatiles (ppm)	EPA Limit	Detection Limit	T20895 CAP NW 2	%P	%EA	QC	%IA
Pyridine	5.0	0.001	ND	95	107	0.636	127
1,4-Dichlorobenzene	7.5	0.001	ND	96	102	0.583	116
o-Cresol	200.0	0.001	ND	95	105	0.615	123
m,p-Cresol	200.0	0.001	ND	96	106	1.154	115
Total Cresol	200.0	0.001	ND	96	107	1.769	118
Hexachloroethane	3.0	0.001	ND	97	103	0.599	119
Nitrobenzene	2.0	0.001	ND	98	111	0.639	127
Hexachlorobutadiene	0.5	0.001	ND	102	100	0.565	113
2,4,6-Trichlorophenol	2.0	0.001	ND	97	85	0.469	93
2,4,5-Trichlorophenol	400.0	0.001	ND	99	92	0.495	99
2,4-Dinitrotoluene	0.13	0.001	ND	97	97	0.559	111
2,4-D	10.0	0.01	ND	97	85	0.410	82
Hexachlorobenzene	0.13	0.001	ND	98	112	0.620	124
2,4,5-TP	1.0	0.01	ND	97	102	0.495	99
Pentachlorophenol	100.0	0.001	ND	112	79	0.451	90
Lindane	0.4	0.001	ND	98	119	0.535	107
Total Heptachlor	0.008	0.001	ND	98	108	1.042	104
Endrin	0.02	0.001	ND	83	103	0.517	103
Methoxychlor	10.0	0.001	ND	111	84	0.439	87
Chlordane	0.03	0.0002	ND	100	110	0.0022	110
Toxaphene	0.5	0.005	ND	100	103	0.0214	107

% RECOVERY

2-Fluorophenol SURR	76
Phenol-d5 SURR	111
Nitrobenzene-d5 SURR	89
2-Fluorobiphenyl SURR	128
2,4,6-Tribromophenol SURR	93
Terphenyl-d14 SURR	94

Methods: EPA SW 846-1311, 8270.

ND - Not Detected

Director, Dr. Blair Leftwich

Director, Dr. Bruce McDonell

DATE

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A Laboratory for Advanced Environmental Research and Analysis

8701 Aberdeen Avenue

Lubbock, Texas 79424

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ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

Analysis Date: 05/04/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

TCLP VOLATILES (ppm)	EPA LIMIT	T20895 CAP NW 2	Detection Limit	QC	%P	%EA	%IA
Vinyl chloride	0.20	ND	0.002	0.058	110	114	116
1,1-Dichloroethene	0.70	ND	0.002	0.059	104	108	118
Methyl Ethyl Ketone	200.0	ND	0.020	0.064	101	88	128
Chloroform	6.00	ND	0.020	0.054	118	98	108
1,2-Dichloroethane	0.50	ND	0.002	0.045	105	88	90
Benzene	0.50	0.010	0.002	0.063	116	96	126
Carbon Tetrachloride	0.50	ND	0.020	0.045	106	82	90
Trichloroethene	0.50	ND	0.002	0.049	103	86	98
Tetrachloroethene	0.70	ND	0.002	0.051	115	96	102
Chlorobenzene	100.00	ND	0.002	0.048	104	90	96
1,4-Dichlorobenzene	7.50	ND	0.002	0.046	100	80	92

% Recovery

1,2-Dichloroethane	91
Toluene-d8	104
4-Bromofluorobenzene	96

ND = Not Detected

METHODS: EPA SW 846-1311, 8240.



Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

DATE


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ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

Analysis Date: 05/01/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP METALS

TA#	Field Code	As (ppm)	Se (ppm)	Cr (ppm)	Cd (ppm)	Pb (ppm)	Ba (ppm)	Ag (ppm)	Hg (ppm)
EPA LIMIT =									
T20896	CAP C 3	5.0	1.0	5.0	1.0	5.0	100	5.0	0.20
QC	Quality Control	<0.1	<0.2	<0.1	<0.1	1.8	2.0	<0.01	<0.001
		5.1	1.0	5.0	1.0	5.0	98.7	5.0	0.020
Detection Limit									
		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.001
% Precision									
		100	100	100	100	100	100	100	100
% Extraction Accuracy									
		111	114	99	108	102	97	92	100
% Instrument Accuracy									
		101	100	100	100	100	99	99	100

METHODS: EPA SW 846-1311, 6010, 7471.

TCLP METALS QC: Blank Spiked with 5.0 ppm As, Cr, Pb, Ag; 1.0 ppm Se, Cd; 100 ppm Ba; 0.020 ppm Hg.

Director, Dr. Blair Leftwich

Director, Dr. Bruce McDonnell

Date

5-17-94

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May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

ANALYTICAL RESULTS FOR

CARTER & BURGESS

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

Analysis Date: 05/05/94

Sampling Date: 04/27/94

Sample Condition: I & C

Sample Received by: MS

Project Name: Amerada Hess
Caprock Disposal

TCLP Semi-Volatiles (ppm)	EPA Limit	Detection Limit	T20896 CAP C 3	%P	%EA	QC	%IA
Pyridine	5.0	0.001	ND	95	103	0.636	127
1,4-Dichlorobenzene	7.5	0.001	ND	96	103	0.583	116
o-Cresol	200.0	0.001	ND	95	107	0.615	123
m,p-Cresol	200.0	0.001	ND	96	104	1.154	115
Total Cresol	200.0	0.001	ND	96	105	1.769	118
Hexachloroethane	3.0	0.001	ND	97	106	0.599	119
Nitrobenzene	2.0	0.001	ND	98	112	0.639	127
Hexachlorobutadiene	0.5	0.001	ND	102	102	0.565	113
2,4,6-Trichlorophenol	2.0	0.001	ND	97	86	0.469	93
2,4,5-Trichlorophenol	400.0	0.001	ND	99	95	0.495	99
2,4-Dinitrotoluene	0.13	0.001	ND	97	98	0.559	111
2,4-D	10.0	0.01	ND	97	85	0.410	82
Hexachlorobenzene	0.13	0.001	ND	98	112	0.620	124
2,4,5-TP	1.0	0.01	ND	97	105	0.495	99
Pentachlorophenol	100.0	0.001	ND	112	86	0.451	90
Lindane	0.4	0.001	ND	98	122	0.535	107
Total Heptachlor	0.008	0.001	ND	98	109	1.042	104
Endrin	0.02	0.001	ND	83	104	0.517	103
Methoxychlor	10.0	0.001	ND	111	85	0.439	87
Chlordane	0.03	0.0002	ND	100	95	0.0022	110
Toxaphene	0.5	0.005	ND	100	115	0.0214	107

% RECOVERY

2-Fluorophenol SURR	118
Phenol-d5 SURR	119
Nitrobenzene-d5 SURR	86
2-Fluorobiphenyl SURR	79
2,4,6-Tribromophenol SURR	94
Terphenyl-d14 SURR	92

Methods: EPA SW 846-1311, 8270.

ND - Not Detected

PS

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

DATE


TRACE ANALYSIS, INC.

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
CARTER & BURGESS, INC.
Attention: J. D. McNamara
505 N. Big Spring, Suite 301A
Midland, TX 79701

May 16, 1994
Receiving Date: 04/29/94
Sample Type: Soil
Project No: 93903601L
Project Location: Caprock, NM

Analysis Date: 05/04/94
Sampling Date: 04/27/94
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: Amerada Hess
Caprock Disposal

TCLP VOLATILES (ppm)	EPA LIMIT	T20896 CAP C 3	Detection Limit	QC	%P	%EA	%IA
Vinyl chloride	0.20	ND	0.002	0.058	110	128	116
1,1-Dichloroethene	0.70	ND	0.002	0.059	104	244	118
Methyl Ethyl Ketone	200.0	ND	0.020	0.064	101	142	128
Chloroform	6.00	ND	0.020	0.054	118	96	108
1,2-Dichloroethane	0.50	ND	0.002	0.045	105	104	90
Benzene	0.50	ND	0.002	0.063	116	106	126
Carbon Tetrachloride	0.50	ND	0.020	0.045	106	92	90
Trichloroethene	0.50	ND	0.002	0.049	103	138	98
Tetrachloroethene	0.70	ND	0.002	0.051	115	102	102
Chlorobenzene	100.00	ND	0.002	0.048	104	98	96
1,4-Dichlorobenzene	7.50	ND	0.002	0.046	100	84	92

% Recovery

1,2-Dichloroethane 77
Toluene-d8 93
4-Bromofluorobenzene 77

ND = Not Detected

METHODS: EPA SW 846-1311, 8240.



Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

DATE


TRACE ANALYSIS, INC.

A Laboratory for Advanced Environmental Research and Analysis

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

Analysis Date: 05/01/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP METALS

TA#	Field Code	As (ppm)	Se (ppm)	Cr (ppm)	Cd (ppm)	Pb (ppm)	Ba (ppm)	Ag (ppm)	Hg (ppm)
EPA LIMIT =									
T20897	CAP SE 4	5.0	1.0	5.0	1.0	5.0	100	5.0	0.20
QC	Quality Control	<0.1	<0.2	<0.1	<0.1	<0.1	1.9	<0.06	<0.001
		5.1	1.0	5.0	1.0	5.0	98.7	5.0	0.020

Detection Limit

0.1 0.2 0.1 0.1 0.1 1.0 0.06 0.001

% Precision

100

% Extraction Accuracy

108

% Instrument Accuracy

101

METHODS: EPA SW 846-1311, 6010, 7471.

TCLP METALS QC: Blank Spiked with 5.0 ppm As, Cr, Pb, Ag, 1.0 ppm Se, Cd, 100 ppm Ba, 0.020 ppm Hg.

Director, Dr. Blair Leftwich

Director, Dr. Bruce McDonnell

Date

5-17-94

6701 Aberdeen Avenue

Lubbock, Texas 79424

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May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

ANALYTICAL RESULTS FOR

CARTER & BURGESS

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

Analysis Date: 05/05/94

Sampling Date: 04/27/94

Sample Condition: I & C

Sample Received by: MS

Project Name: Amerada Hess
Caprock Disposal

TCLP Semi-Volatiles (ppm)	EPA Limit	Detection Limit	T20897 CAP SE 4	%P	%EA	QC	%IA
Pyridine	5.0	0.001	ND	95	105	0.636	127
1,4-Dichlorobenzene	7.5	0.001	ND	96	102	0.583	116
o-Cresol	200.0	0.001	ND	95	107	0.615	123
m,p-Cresol	200.0	0.001	ND	96	103	1.154	115
Total Cresol	200.0	0.001	ND	96	105	1.769	118
Hexachloroethane	3.0	0.001	ND	97	104	0.599	119
Nitrobenzene	2.0	0.001	ND	98	111	0.639	127
Hexachlorobutadiene	0.5	0.001	ND	102	101	0.565	113
2,4,6-Trichlorophenol	2.0	0.001	ND	97	86	0.469	93
2,4,5-Trichlorophenol	400.0	0.001	ND	99	90	0.495	99
2,4-Dinitrotoluene	0.13	0.001	ND	97	97	0.559	111
2,4-D	10.0	0.01	ND	97	84	0.410	82
Hexachlorobenzene	0.13	0.001	ND	98	113	0.620	124
2,4,5-TP	1.0	0.01	ND	97	104	0.495	99
Pentachlorophenol	100.0	0.001	ND	112	79	0.451	90
Lindane	0.4	0.001	ND	98	122	0.535	107
Total Heptachlor	0.008	0.001	ND	98	111	1.042	104
Endrin	0.02	0.001	ND	83	115	0.517	103
Methoxychlor	10.0	0.001	ND	111	86	0.439	87
Chlordane	0.03	0.0002	ND	100	110	0.0022	110
Toxaphene	0.5	0.005	ND	100	107	0.0214	107

% RECOVERY

2-Fluorophenol SURR	110
Phenol-d5 SURR	101
Nitrobenzene-d5 SURR	122
2-Fluorobiphenyl SURR	122
2,4,6-Tribromophenol SURR	86
Terphenyl-d14 SURR	73

Methods: EPA SW 846-1311, 8270.

ND - Not Detected

BS

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

DATE


TRACE ANALYSIS, INC.

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue
Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
CARTER & BURGESS, INC.
Attention: J. D. McNamara
505 N. Big Spring, Suite 301A
Midland, TX 79701

May 16, 1994
Receiving Date: 04/29/94
Sample Type: Soil
Project No: 93903601L
Project Location: Caprock, NM

Analysis Date: 05/04/94
Sampling Date: 04/27/94
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: Amerada Hess
Caprock Disposal

TCLP VOLATILES (ppm)	EPA LIMIT	T20897 CAP SE 4	Detection Limit	QC	%P	%EA	%IA
Vinyl chloride	0.20	ND	0.002	0.058	110	102	116
1,1-Dichloroethene	0.70	ND	0.002	0.059	104	156	118
Methyl Ethyl Ketone	200.0	ND	0.020	0.064	101	102	128
Chloroform	6.00	ND	0.020	0.054	118	88	108
1,2-Dichloroethane	0.50	ND	0.002	0.045	105	76	90
Benzene	0.50	ND	0.002	0.063	116	112	126
Carbon Tetrachloride	0.50	ND	0.020	0.045	106	94	90
Trichloroethene	0.50	ND	0.002	0.049	103	144	98
Tetrachloroethene	0.70	ND	0.002	0.051	115	114	102
Chlorobenzene	100.00	ND	0.002	0.048	104	100	96
1,4-Dichlorobenzene	7.50	ND	0.002	0.046	100	92	92

% Recovery

1,2-Dichloroethane 64
Toluene-d8 112
4-Bromofluorobenzene 96

ND = Not Detected

METHODS: EPA SW 846-1311, 8240.



Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

DATE


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A Laboratory for Advanced Environmental Research and Analysis

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Lubbock, Texas 79424

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ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

Analysis Date: 05/01/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP METALS

TA#	Field Code	As (ppm)	Se (ppm)	Cr (ppm)	Cd (ppm)	Pb (ppm)	Ba (ppm)	Ag (ppm)	Hg (ppm)
EPA LIMIT =									
T20898	CAP SW 5	5.0	1.0	5.0	1.0	5.0	100	5.0	0.20
QC	Quality Control	<0.1	<0.2	0.2	<0.1	0.6	1.5	<0.05	<0.001
		5.1	1.0	5.0	1.0	5.0	98.7	5.0	0.020
Detection Limit									
		0.1	0.2	0.1	0.1	0.1	1.0	0.05	0.001
% Precision									
		100	100	100	100	100	100	100	100
% Extraction Accuracy									
		110	120	99	100	99	102	94	100
% Instrument Accuracy									
		101	97	102	102	101	98	101	100

METHODS: EPA SW 846-1311, 6010, 7471.

TCLP METALS QC: Blank Spiked with 5.0 ppm As, Cr, Pb, Ag; 1.0 ppm Se, Cd; 100 ppm Ba; 0.020 ppm Hg.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDowell

Date

5-17-94

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

ANALYTICAL RESULTS FOR

CARTER & BURGESS

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

Analysis Date: 05/05/94

Sampling Date: 04/27/94

Sample Condition: I & C

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TCLP Semi-Volatiles (ppm)	EPA Limit	Detection Limit	T20898 CAP SW 5	%P	%EA	QC	%IA
Pyridine	5.0	0.001	ND	95	100	0.636	127
1,4-Dichlorobenzene	7.5	0.001	ND	96	88	0.583	116
o-Cresol	200.0	0.001	ND	95	91	0.615	123
m,p-Cresol	200.0	0.001	ND	96	84	1.154	115
Total Cresol	200.0	0.001	ND	96	86	1.769	118
Hexachloroethane	3.0	0.001	ND	97	90	0.599	119
Nitrobenzene	2.0	0.001	ND	98	93	0.639	127
Hexachlorobutadiene	0.5	0.001	ND	102	82	0.565	113
2,4,6-Trichlorophenol	2.0	0.001	ND	97	84	0.469	93
2,4,5-Trichlorophenol	400.0	0.001	ND	99	87	0.495	99
2,4-Dinitrotoluene	0.13	0.001	ND	97	70	0.559	111
2,4-D	10.0	0.01	ND	97	81	0.410	82
Hexachlorobenzene	0.13	0.001	ND	98	88	0.620	124
2,4,5-TP	1.0	0.01	ND	97	108	0.495	99
Pentachlorophenol	100.0	0.001	ND	112	80	0.451	90
Lindane	0.4	0.001	ND	98	84	0.535	107
Total Heptachlor	0.008	0.001	ND	98	86	1.042	104
Endrin	0.02	0.001	ND	83	115	0.517	103
Methoxychlor	10.0	0.001	ND	111	103	0.439	87
Chlordane	0.03	0.0002	ND	100	105	0.0022	110
Toxaphene	0.5	0.005	ND	100	121	0.0214	107

% RECOVERY

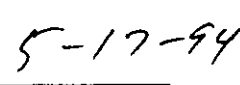
2-Fluorophenol SURR	92
Phenol-d5 SURR	90
Nitrobenzene-d5 SURR	88
2-Fluorobiphenyl SURR	82
2,4,6-Tribromophenol SURR	98
Terphenyl-d14 SURR	90

Methods: EPA SW 846-1311, 8270.

ND - Not Detected



Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell



DATE


TRACE ANALYSIS, INC.

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue
Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
CARTER & BURGESS, INC.
Attention: J. D. McNamara
505 N. Big Spring, Suite 301A
Midland, TX 79701

May 16, 1994
Receiving Date: 04/29/94
Sample Type: Soil
Project No: 93903601L
Project Location: Caprock, NM

Analysis Date: 05/04/94
Sampling Date: 04/27/94
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: Amerada Hess
Caprock Disposal

TCLP VOLATILES (ppm)	EPA LIMIT	T20898 CAP SW 5	Detection Limit	QC	%P	%EA	%IA
Vinyl chloride	0.20	ND	0.002	0.058	110	92	116
1,1-Dichloroethene	0.70	ND	0.002	0.059	104	100	118
Methyl Ethyl Ketone	200.0	ND	0.020	0.064	101	74	128
Chloroform	6.00	ND	0.020	0.054	118	88	108
1,2-Dichloroethane	0.50	ND	0.002	0.045	105	74	90
Benzene	0.50	ND	0.002	0.063	116	110	126
Carbon Tetrachloride	0.50	ND	0.020	0.045	106	94	90
Trichloroethene	0.50	ND	0.002	0.049	103	130	98
Tetrachloroethene	0.70	ND	0.002	0.051	115	110	102
Chlorobenzene	100.00	ND	0.002	0.048	104	102	96
1,4-Dichlorobenzene	7.50	ND	0.002	0.046	100	90	92

% Recovery

1,2-Dichloroethane
Toluene-d8
4-Bromofluorobenzene

78
88
80

ND = Not Detected

METHODS: EPA SW 846-1311, 8240.



Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

5-17-94

DATE


TRACE ANALYSIS, INC.

A Laboratory for Advanced Environmental Research and Analysis

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88201

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
RECEIVED 316 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87503

31 JUL 8 AM 8 50

WELL API NO.
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name H.C. Posey, "A" Lease
8. Well No.
9. Pool name or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER ☐ Emergency Overflow Pit	
2. Name of Operator Amerada Hess Corporation	
3. Address of Operator Drawer D, Monument, NM 88265	
4. Well Location Unit Letter _____ : _____ Feet From The _____ Line and _____ Feet From The _____ Line Section 11 Township 12S Range 32S NMMP Lea County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.)	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☒
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS. ☐
OTHER: _____ ☐	PLUG AND ABANDONMENT ☐
	CASING TEST AND CEMENT JOB ☐
	OTHER: _____ ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

We remediated the emergency overflow pit associated with the H.C. Possey Lease referred to as the East Caprock SWD System. The approximate dimensions of the pit were 117 feet by 39 feet. The pit was characterized as containing oilfield wastes associated in oil and gas production practices which are exempt from the RCRA Subtitle C Regulations. Approximately 1450 cubic yards of heavily contaminated soil was excavated from the top 6 foot layer located in the pit. This was removed and stock-piled for on-site bioremediation. The pit was then excavated to 26 feet to remove the hydrocarbon contaminated soils. There were several other areas located on the site that were also excavated (six more areas) due to contamination. These areas and the remainder of the pit consisted of another approximately 6,623 cubic yards of contamination. Total Petroleum Hydrocarbon (TPH) content at the bottom of the main pit ranged from 36 ppm to 590 ppm of TPH, after excavation sampled by 4 point composite samples in each corner and two composite samples from the middle. The contaminated soil from the excavation was blended with on-site and transported fresh fill to dilute the contamination under OCD (continued next page)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE Production Foreman DATE 5/19/94

TYPE OR PRINT NAME Al Young TELEPHONE NO. (505) 393-2144

(This space for State Use)

APPROVED BY [Signature] TITLE Production Foreman DATE 6-7-94

CONDITIONS OF APPROVAL, IF ANY: None Waste Pits MMSCD ENVIR ENVR 7/1/94

DISTRICT 1 SUPERVISOR

JUL 01 1994

C103 continued

Amerada Hess Corporation
Drawer D, Monument, NM 88265

H.C. Posey "A" Lease

Description:

..closure guideline ranking of 1,000 ppm of TPH. The main pit and associated areas were backfilled and dressed to grade. The heavy hydrocarbon contaminated soil, approximately 1450 cubic yards was spread on the location in a six inch lift for bioremediation. The bioremediation took approximately 110 days and a final composite sample as indicated by a third party laboratory is enclosed showing that the contamination was down to 263 ppm over the site, well under OCD closure guidelines. The site was reseeded and fencing removed.

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

February 15, 1994

Environmental Spill Control
Mr. Allen Hodge
P.O. Box 5890
Hobbs, NM 88241

Sample Matrix: Soil

Project: Amerada Hess Caprock
Submitted By: Allen Hodge

Date Received: 2/11/94
Date Reported: 2/15/94

CHEMICAL ANALYSIS REPORT

Parameter	Value	Units	Test Method
Sample ID: Amerada Hess Caprock			
Benzene	<0.1	ppm	8020/5030
Toluene	<0.1	ppm	
Ethylbenzene	<0.1	ppm	
Xylene (omp)	<0.1	ppm	
Total Petroleum Hydrocarbons	263	ppm	418.1

Total QC (Quality Control)

Tot. BTEX QC: Blank spiked with 100 ppb BTE and 200 ppb (m,p)Xylene, 100 ppb (o) Xylene
Detection Limits 0.1 ppm

Total Petroleum Hydrocarbons QC: Blank spiked with 162 ppm
Detection Limit 10 ppm

	Result (ppb)	% Accuracy
Benzene	104.5	104
Toluene	104.9	105
Ethylbenzene	105.4	105
Xylene (mp)	210.6	105
Xylene (o)	106.2	106
TPH	159 ppm	99


Kirk Robinson

OIL CONSERVATION DIVISION
RECEIVED

To: BILL OLSON
NMOC

'94 JUN 10 AM 8 50

INTER-OFFICE MEMO

To file: AMERADA HESS MONUMENT AND CAPROCK LANDFILL PROJECTS

Date: June 6, 1994
Time: 9:00 am

Telephone call: _____ Meeting: X Other: _____

Person called or attending:

Wayne Price and Jerry Sexton- NMOC
Al Young and Sam Small- Amerada Hess

REFERENCE: Meeting at request of Amerada Hess

Subject: Closure of two landfills
1. Monument
2. Caprock

Comments:

Monument Landfill.

Sam Small submitted analytical results (attached) of the two sites. He indicated that TCLP's have been run on both sites and both were negative. The analytical results submitted consisted of TPH, MTBE, & BTEX.

They pointed out that no ground water was found from 0-100 ft at the Monument site. There were two small spots that were over the guideline limits. This was points Mon sw 6 & Mon sc 8. These values were both around 9000 ppm for TPH. All others were well below the 5000 ppm guideline recommendations.

They requested that this facility be closed by commingling all the dirt and grade to ground level. They will submit final C-103's when complete.

They also indicated that Amerada will file "Quick Claim " deeds in order to deed record this activity.

Caprock Landfill.

This facility had one spot called Cap NE 1 that the analytical results indicated high TPH levels. They indicated they would excavate down below this spot and determine the vertical extent of the contamination. Depending upon how much material they get out will determine what type of remediation they will perform. They requested verbally if they may proceed with this approach.

They indicated they would "Quick Claim" this property also, however the original contract showed it to revert back to the original land owner. There is some question whether this land is NM State land.

They indicated that they will submit final C-103's when complete.

Conclusion:

The final procedure to be used for the final closure of the two landfills was agreed upon and Amerada will furnish a final report when completed.

They presently are waiting on an EPA ID # to ship off the solid waste that is on site at the Monument location.

Wayne Price



4/7/94

Attachments-1

cc: Jerry Sexton-District I Supervisor
Bill Olson-Environmental Bureau-Hydrogeologist

file: c:\wp51\lwpamer

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue

Lubbock, Texas 79424

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ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

Analysis Date: 04/29/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Monument Disposal

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 939037011

Project Location: Monument, NM

No Groundwater 2/16/94

TA#	Field Code	TRPHC (ppb)	MTBE (ppb)	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	M,P,O XYLENE (ppb)	TOTAL BTEX (ppb)
T20899	MON NW 1	2,347,248	<1	<1	<1	<1	<1	<1
T20900	MON NW 2	1,992,139	<1	<1	<1	<1	<1	<1
T20901	MON NW 3	4,156,329	<1	<1	<1	<1	<1	<1
T20902	MON SE 4	1,708,223	<1	<1	<1	<1	<1	<1
T20903	MON C 5	1,381,798	<1	<1	<1	<1	<1	<1
T20904	MON SW 6	8,968,818	<1	<1	2	<1	<1	2
T20905	MON SE 7	305,287	<1	<1	<1	<1	<1	<1
T20906	MON SC 8	9,811,980	<1	<1	1	<1	<1	1
T20907	MON SW 9	161,539	<1	<1	<1	<1	<1	<1
QC	Quality Control	163,380	185	181	189	190	570	
Detection Limit		5,000	1	1	1	1	1	
% Precision		100	100	100	101	100	106	
% Extraction Accuracy		110	93	86	81	75	70	
% Instrument Accuracy		100	93	90	95	95	95	

METHODS: EPA SW 846-8020; EPA 418.1

BTEX SPIKE AND CHL SAMPLE AND Blank spiked with 200 ppb EACH VOLATILE ORGANICS.

TRPHC SPIKE AND CHL SAMPLE AND Blank spiked with 327,760 ppb TRPHC and Blank spiked with 163,880 ppb TRPHC.

5-17-94

Director, Dr. Blair Leftwich

Director, Dr. Bruce McDonnell

Date

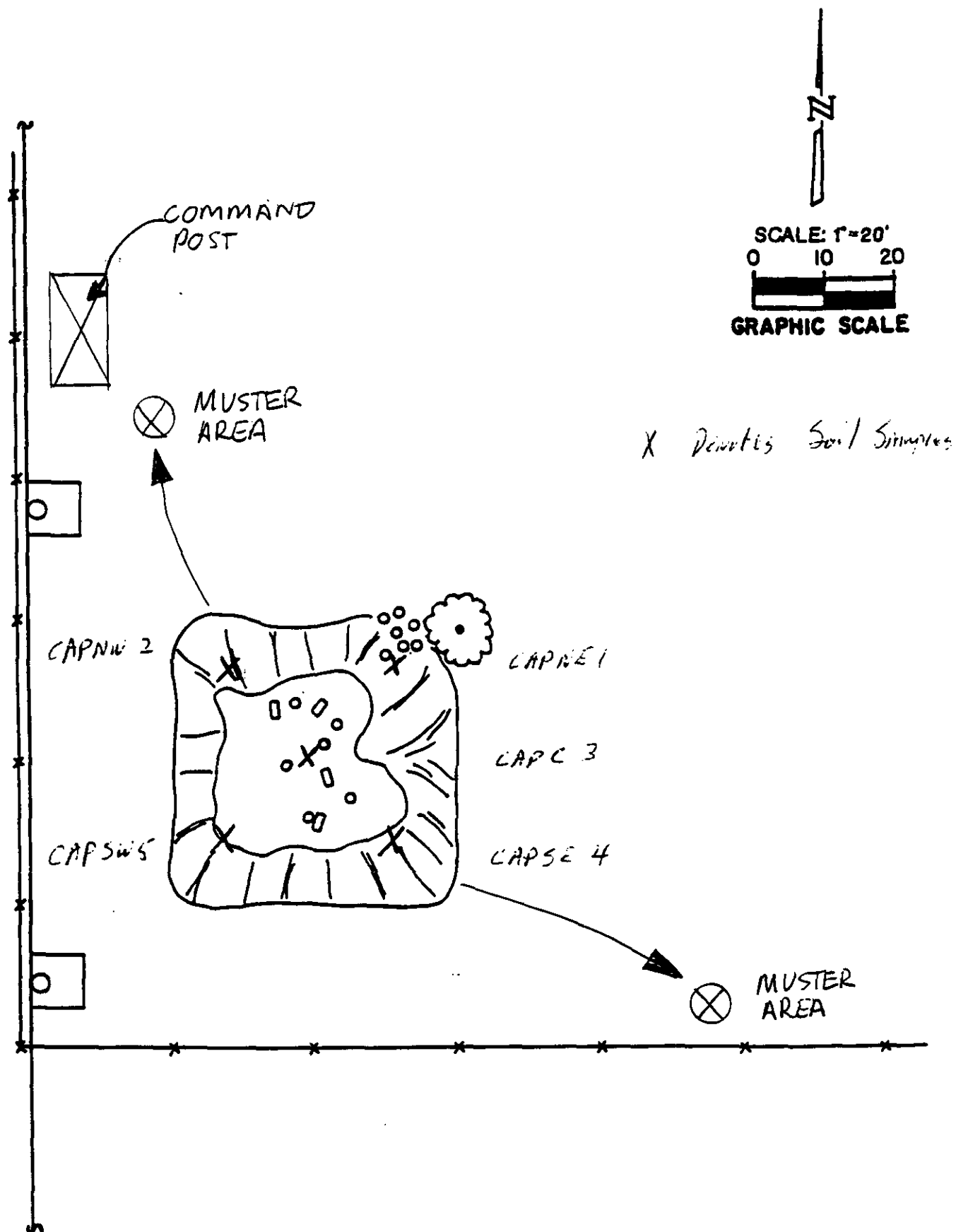


FIGURE 10.1 - SITE MAP DEPICTING EVACUATION ROUTES & MUSTER AREA

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue

Lubbock, Texas 79424

806-794-1288

FAX 806-794-1288

ANALYTICAL RESULTS FOR

CARTER & BURGESS, INC.

Attention: J. D. McNamara

505 N. Big Spring, Suite 301A

Midland, TX 79701

May 16, 1994

Receiving Date: 04/29/94

Sample Type: Soil

Project No: 93903601L

Project Location: Caprock, NM

Analysis Date: 04/29/94

Sampling Date: 04/27/94

Sample Condition: Intact & Cool

Sample Received by: MS

Project Name: Amerada Hess

Caprock Disposal

TA#	Field Code	TRPHC (ppb)	MTBE (ppb)	BENZENE (ppb)	TOLUENE (ppb)	ETHYL- BENZENE (ppb)	M,P,O XYLENE (ppb)	TOTAL BTEX (ppb)
T20894	CAP NE 1 <i>well check!</i>	38,150,260	21	18	7	<1	21	46
T20895	CAP NW 2	401,787	<1	1	<1	<1	<1	1
T20896	CAP C 3	6,111,428	<1	18	12	4	33	67
T20897	CAP SE 4	4,309,837	<1	4	1	<1	5	10
T20898	CAP SW 5	732,877	<1	11	27	50	329	417
QC	Quality Control	163,380	185	181	189	190	570	
Detection Limit		5,000	1	1	1	1	1	
% Precision		100	100	100	101	100	106	
% Extraction Accuracy		110	93	86	81	75	70	
% Instrument Accuracy		100	93	90	95	95	95	

METHODS: EPA SW 846-8020; EPA 418.1.

BTEX SPIKE AND QC: Sample and Blank Spiked with 200 ppb EACH VOLATILE ORGANICS.

TRPHC SPIKE AND QC: Sample spiked with 327,760 ppb TRPHC and Blank spiked with 163,880 ppb TRPHC.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonnell

Date

5-17-94