B/ow — risk bedrock
Sep — risk non-vulnerable 80178

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, 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

Orig. 11/22/98
OVM levels @ bedrock btm.

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Well Name R.P. HARGRAVE LS

Location: Unit or Qtr/Qtr Sec M Sec 4 T 27N R 10W County SAN JUAN

Pit Type: Separator ___ Dehydrator ___ Other BLOW

Land Type: BLM X, State ___, Fee ___, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 53', width 25', depth 11'
Reference: wellhead X, other ___
Footage from reference: 300'
Direction from reference: 80 Degrees X East North X of ___ West South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	0
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)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	0
	RANKING SCORE (TOTAL POINTS):	0

B0178

Date Remediation Started: _____ **Date Completed:** 12/3/94

Remediation Method: (Check all appropriate sections)
Excavation X Approx. cubic yards 540
Landfarmed ___ Insitu Bioremediation ___
Other COMPOSTED

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

General Description Of Remedial Action: _____
Excavation - SANDSTONE BOTTOM, RISK ASSESSED. 9N

Ground Water Encountered: No X Yes ___ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)
Sample location see Attached Documents
Sample depth 9'
Sample date 12/2/94 Sample time 1310

Sample Results
Benzene(ppm) 0.0045
Total BTEX(ppm) 0.0621
Field headspace(ppm) 203.5
TPH 156 ppm

Ground Water Sample: Yes ___ No X (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 ~~12/3/94~~ 5/23/98 9N

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

NW

CLIENT: AMOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: 8078
C.O.C. NO: 2318

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: R.P HARGRAVE WELL #: 1 PIT: BLOW
QUAD/UNIT: M SEC: 4 TWP: 27N RNG: 10W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: SW/4 SW/4 CONTRACTOR: EPC

DATE STARTED: 12/2/94
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 53 FT. x 25 FT. x 11 FT. DEEP. CUBIC YARDAGE: 540
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: COMPOSTED
LAND USE: RANGE LEASE: [illegible]-077382 FORMATION: OK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 300 FT. [illegible] FROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
✓ PIT ABANDONED
___ STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

OK, YELL. ORANGE TO OLIVE SILTY SAND, NON-COHESIVE, SLIGHTLY MOIST, FIRM TO DENSE, STRONG HC ODOR IN NE SIDEWALL OVM SAMPLE ONLY (7@9').
BOTTOM - OK, GRY SANDSTONE, SOME AREAS SOFT, MOSTLY HARD, STRONG HC ODOR, BOTH OVM SAMPLES (7@9', 8@14').

BEDROCK BOTTOM

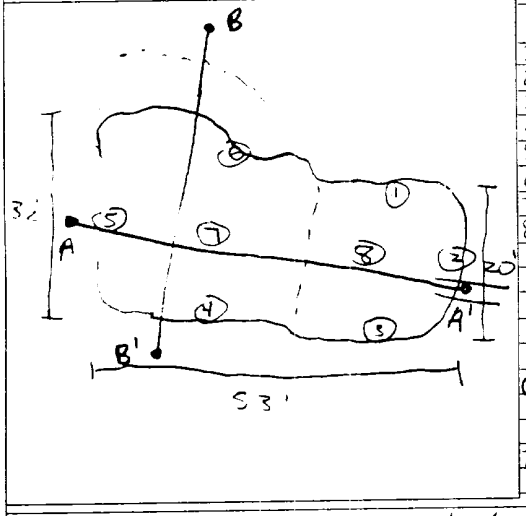
RSK ASSESSED ✓NV

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1310	7@9'	TPH-1306	5	20	1:1	39	156

SCALE
0 FT

PIT PERIMETER



OVM RESULTS

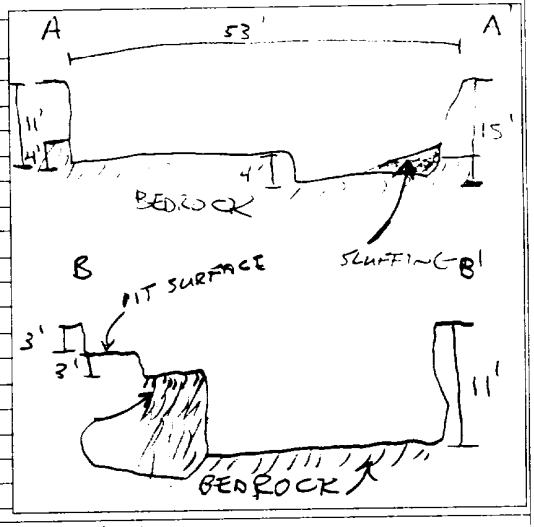
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1@ 9'	203.5
2@ 9'	29.7
3@ 9'	4.8
4@ 7'	4.2
5@ 6'	6.1
6@ 5'	4.1
7@ 11'	874
8@ 14'	802

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
①@9'	BTEX	1310
B - 4.5 ppb		
TOT - 62.1 ppb		

PASSED

PIT PROFILE



TRAVEL NOTES: CALLOUT: 12/2/94 ONSITE: 12/2/94

Well Name:	**R. P. Hargrave L #1**
Well Site location:	Unit M, Sec. 4, T27N, R10W
Pit Type:	Blow Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock between 7 to 11 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow sandstone bedrock located between 7 to 11 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.

2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.

3. Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Field headspace readings (OVM/PID) on Basin Dakota type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are several typical AMOCO Basin Dakota pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
Frost, Jack B 1E	**1100**	**0.011**	**5.889**
Berger A1	**482**	**0.084**	**0.681**
Mudge Com B 1E	**684**	**0.017**	**16.438**
L.C. Kelly #5	**1235**	**0.643**	**13.908**

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Basin Dakota type pits.

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the sandstone bottom creates enough of a permeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO requests pit closure approval on this location.

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	
Sample ID:	1 @ 9'	Date Analyzed:	12-02-94
Project Location:	R.P. Hargrave L 1	Date Reported:	12-02-94
Laboratory Number:	TPH-1306	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**160**	**20**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	2640	2640	0.00

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Blow Pit - B0178

Analyst

Review

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: 12/3/94
Lab ID: 2318
Sample ID: 4234
Job No. 2-1000

Project Name: ***R. P. Hargrave L 1***
Project Location: ***1 @ 9' - Blow Pit***
Sampled by: NV Date: 12/2/94 Time: 13:10
Analyzed by: DLA Date: 12/3/94
Sample Matrix: *Soil*

Aromatic Volatile Organics

Component	*Measured Concentration ug/kg*	*Detection Limit Concentration ug/kg*
Benzene	*4.5*	*0.2*
Toluene	*5.9*	*0.2*
Ethylbenzene	*8.1*	*0.2*
m,p-Xylene	*38.5*	*0.2*
o-Xylene	*5.1*	*0.2*
	TOTAL 62.1 ug/kg	

ND - Not Detectable

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

Approved by:
Date: 12/5/94

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:	**********		
Client:	Amoco	Project #:	
Sample ID:	1 @ 9'	Date Analyzed:	12-02-94
Project Location:	R.P. Hargrave L 1	Date Reported:	12-02-94
Laboratory Number:	TPH-1306	Sample Matrix:	Soil

Sample Weight:	5.00	grams
Volume Freon:	20.00	mL
Dilution Factor:	1	(unitless)
TPH Reading:	39	mg/kg

TPH Result:	156.0	mg/kg
Reported TPH Result:	160	mg/kg
Actual Detection Limit:	20.0	mg/kg
Reported Detection Limit:	20	mg/kg

QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.
	2640	2640	0.00

Comments: **********Max Characters**********

Comments: Blow Pit - B0178

B0178

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, 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: Amoco Production Company **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: R.P. HARGRAVE LS 1
Well Name

Location: Unit or Qtr/Qtr Sec M Sec 4 T 27N R 10W County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM X, State ___, Fee ___, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 17', width 27', depth 10'
Reference: wellhead X, other ___
Footage from reference: 140'
Direction from reference: 42 Degrees ___ East North X of X West South ___

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	0
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)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	0
	RANKING SCORE (TOTAL POINTS):	0

B0178

Date Remediation Started: _____ **Date Completed:** 12/14/94

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 135

Landfarmed ___ Insitu Bioremediation ___

Other COMPOSTED

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

General Description Of Remedial Action: _____

Excavation RISK ASSESSED - NON VULNERABLE AREA. 9.5

Ground Water Encountered: No X Yes ___ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 11'

Sample date 12/13/94 Sample time 1130

Sample Results

Benzene(ppm) 4.216

Total BTEX(ppm) 300.985

Field headspace(ppm) 632

TPH 3,560 ppm

Ground Water Sample: Yes ___ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF 9.5

DATE ~~12/14/94~~ 5/23/98

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

R6

CLIENT: AMOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: 80178
C.C.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: R.P. HAGGARD WELL #: 41 PIT: SEP
QUAD/UNIT: M SEC: 4 TWP: 27N RNG: 10W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: SW/4 SW/4 CONTRACTOR: EPC

DATE STARTED: 12/13/94
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX 17 FT. x 27 FT. x 10 FT. DEEP. CUBIC YARDAGE: 135
DISPOSAL FACILITY: BN-SITE REMEDIATION METHOD: COMPOSTED
LAND USE: RANGE LEASE: SF-077382 FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 140 FT. N42W FROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
___ PIT ABANDONED
✓ STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

DK YELL. ORANGE (NORTH SIDEWALL), OLIVE GRAY (EAST, SOUTH, & WEST SIDEWALLS), MED. GRAY (BOTTOM) SAND, NON-COHESIVE, SLIGHTLY MOIST, FIRM, STRONG HC ODOR IN ALL OVM SAMPLES EXCEPT NORTH SIDEWALL.

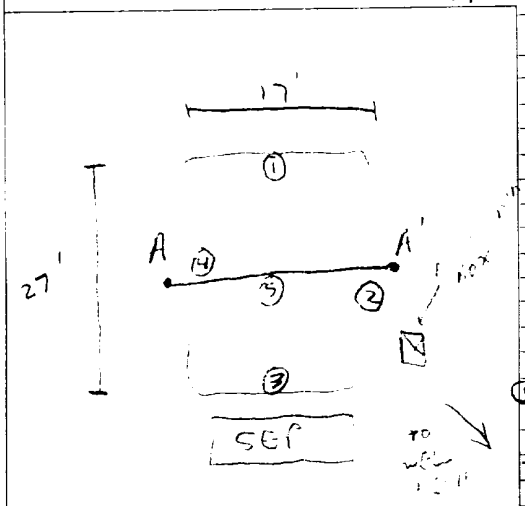
~~CONFIRMATION CLOSURE~~ RISK ASSESSED NV

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1130	⑤ @ 11'	TPH-1321	5	20	10:1	89	3,560
"	"	DUPLICATE	5	20	10:1	76	3,040

SCALE
0 FT

PIT PERIMETER



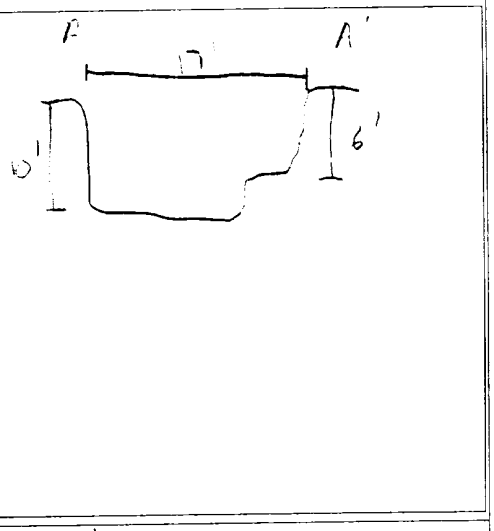
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 8'	0.0
2 @ 6'	644
3 @ 6'	564
4 @ 11'	279
5 @ 11'	232

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
⑤ @ 11'	BTEX	1130
B-	4,216	ppb
TOT. BTEX	300,985	ppb
	FAILED	

PIT PROFILE



TRAVEL NOTES: CALLOUT: 12/9/94 ONSITE: 12/13/94

Well Name:	**R. P. Hargrave L #1**
Well Site location:	Unit M, Sec. 4, T27N, R10W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe reached practical extent for double wall steel tank installation.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below presumed shallow sandstone bedrock (bedrock encountered between 7 to 11 feet below grade at nearby blow pit on-site).

2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.

3. Daily discharge into the earthen pit has been terminated (double wall steel tank installed). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Well site located within the **non-vulnerable area** and is approximately 2.25 miles east or west of the nearest vulnerable area boundaries (East of Kutz Canyon wash and west of Armenta Canyon wash).

   (Refer to East Fork Kutz Canyon Quadrangle, New Mexico - San Juan County, 7.5 Minute Series (Topographic), provisional edition, 1985, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).

Based upon the information given, we conclude that the subsurface vertical impact to groundwater is very unlikely. AMOCO requests pit closure approval on this location.

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	
Sample ID:	5 @ 11'	Date Analyzed:	12-13-94
Project Location:	R.P. Hargrave L 1	Date Reported:	12-13-94
Laboratory Number:	TPH-1321	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	**3,600**	**200**

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	3560	3040	15.76

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator Pit - B0178

Analyst

Review

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: 12/14/94
Lab ID: 2324
Sample ID: 4374
Job No. 2-1000

Project Name: ***R. P. Hargrave L 1***
Project Location: ***5 @ 11' - Sep Pit***
Sampled by: NV Date: 12/13/94 Time: 11:30
Analyzed by: DLA Date: 12/14/94
Sample Matrix: *Soil*

Aromatic Volatile Organics

Component	***Measured Concentration ug/kg***	***Detection Limit Concentration ug/kg***
Benzene	*4,216*	*0.2*
Toluene	*93,906*	*0.2*
Ethylbenzene	*23,056*	*0.2*
m,p-Xylene	*134,374*	*0.2*
o-Xylene	*45,434*	*0.2*
	TOTAL 300,985 ug/kg	

ND - Not Detectable

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

Approved by: Jack
Date: 12/14/94

P. O. BOX 2606 • FARMINGTON, NM 87499

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:	**********		
Client:	Amoco	Project #:	
Sample ID:	5 @ 11'	Date Analyzed:	12-13-94
Project Location:	R.P. Hargrave L 1	Date Reported:	12-13-94
Laboratory Number:	TPH-1321	Sample Matrix:	Soil

Sample Weight:	5.00	grams
Volume Freon:	20.00	mL
Dilution Factor:	10	(unitless)
TPH Reading:	89	mg/kg

TPH Result:	3560.0	mg/kg
Reported TPH Result:	3600	mg/kg
Actual Detection Limit:	200.0	mg/kg
Reported Detection Limit:	200	mg/kg

QA/QC:

Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.
3560	3040	15.76

Comments: **********Max Characters**********

Comments: Separator Pit – B0178

CHAIN OF CUS. JDY RECORD

2318

ON SITE TECHNOLOGIES, LTD.

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

Date: 12/2/94

Page 1 of 1

B0178

Purchase Order No.:	Reference No.:		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name [illegible]	Title [illegible]
Company [illegible]	Dept.	Company [illegible]	
Address P.O. Box [illegible]		Mailing Address [illegible]	
City, State, Zip [illegible]		City, State, Zip [illegible]	
		Telephone No. [illegible]	Telefax No.

Special Instructions:
K.P. HARGRAVE L 1

Sampler: [signature]

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES	Number of Containers	BTEX (8020)	8015 (Gas/Diesel)	Remarks (matrix)
009' - Flow pit	12/2/94 1300	GRAB		1	1	4224-2218	SOIL

ANALYSIS REQUESTED

Relinquished by: [signature]	Date/Time 12-2-94 1700	Received by: [signature]	Date/Time 12/2/94 1618
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Rush	5 Working Days	10 Working Days	Sampling Location:

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

CHAIN OF CUS. JDY RECORD

2324

ON SITE TECHNOLOGIES, LTD.

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

Date: 12/1/94

Page 1 of 1

B0178

Purchase Order No.:	Reference No.:		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name	Title
Company	Dept.	Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

Special Instructions:

Sampler:

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES	Number of Containers	ANALYSIS REQUESTED	Remarks (matrix)
(5) @ 11' - SCP	1130	GRAB		1	✓	SOIL

Relinquished by:	Date/Time	Received by:	Date/Time 12/1/94 0748
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Rush	5 Working Days	10 Working Days	Sampling Location:

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

RG

CLIENT: Amoco

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: 80178
C.D.C. NO: KNIATAS

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: R.P. HARGRAVE L1 LEASE: SF-077382
QUAD/UNIT: M SEC 4 TWP: 27N RNG: 10W BM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: SW/SW CONTRACTOR: EPC

DATE STARTED: 4-18-96
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: RG

SOIL REMEDIATION:

REMEDIATION SYSTEM: COMPOST APPROX. CUBIC YARDAGE: 675
LAND USE: RANGE

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

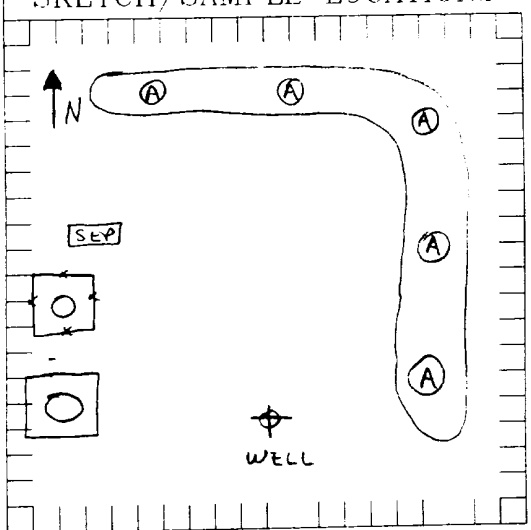
COMPOSTED SOILS BUILT INTO BERMS ON EDGE OF LOCATION.
SOIL CONSISTS OF MOIST, BROWN, SILT-SAND, COMPOSTED. NO STAIN, NO ODOR.

CLOSE C.P.

FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
COMP. A	8

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
COMP. A	8015	1055	31.5

SCALE
0 FT

TRAVEL NOTES: CALLOUT: ONSITE: 4-18-96 1045

FORM REVISED 4/96

ANAITAS
ENVIRONMENTAL LABS

TOTAL VOLATILE PETROLEUM HYDROCARBONS

Gasoline Range Organics

Blagg Engineering, Inc.

Project ID:	R.P. Hargrave L1	Report Date:	04/29/96
Sample Matrix:	Soil	Date Sampled:	04/18/96
Preservative:	Cool	Date Received:	04/18/96
Condition:	Intact	Date Extracted:	04/19/96
		Date Analyzed:	04/24/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
Comp A	3144	ND	17.5

ND- Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
Trifluorotoluene	93%	50 - 150%

Reference: Method for the Determination of Gasoline Range Organics, State of Tennessee, Department of Environment and Conservation, Division of Underground Storage Tanks.

Comments:

Analyst

Review

ANAITAS
ENVIRONMENTAL LABS

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Diesel Range Organics

Blagg Engineering, Inc.

Project ID:	R.P Hargrave L1	Report Date:	04/29/96
Sample Matrix:	Soil	Date Sampled:	04/18/96
Preservative:	Cool	Date Received:	04/18/96
Condition:	Intact	Date Extracted:	04/28/96
		Date Analyzed:	04/28/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
Comp A	3144	31.5	18.4

ND- Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
o - Terphenyl	109%	50 - 150%

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:

Analyst

Review