District 1 State of New Mexico
s, NM State of New Mexico State of New Mexico P.O. Box 1980, Hobbs District II DEPUTY OIL & GAS INSTECTOR
OIL CONSERVATION DIVISION

1000 Rio Biazos Rd, Aztec, NM **0**00 2 8 1997

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

PIT REMEDIATION AND CLOSURE REPORT

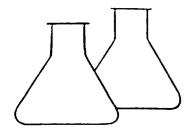
P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Operator Phillip	s Petroleum Company		Telephone: _(505) 599-3400	
Address: 5525 H	wy. 64, NEBU 3004, Farmingto	on, NM	87401		····
Well Name	\mathcal{O}				
Location: Unit or Qtr.	Otr Sec SWSE Sec 32 T	29N	R 6W County Rio	Arriba	
Pit Type: Separator	X Dehydrator	Other C	ondensate Tank		
Land Type: BLM	, State X	, Fee	, Other		
Pit Location: (Attach diagram)	Reference: wellhead X Footage from reference: 70 ft	other	East North of X West South		
Depth to Ground Wate (vertical distance from		, <u>X</u>	Less than 50 feet 50 ft to 99 feet	(20 points) (10 points)	
contaminants to season highwater elevation of ground water)			Greater than 100 feet	(0 points)	10
Wellhead Protection A (less than 200 feet fror domestic water source 1000 feet from all other	or: less than AUG 1 4 1997		Yes No	(20 points) (0 points)	0
Distance to Surface W (Horizontal distance to lakes, ponds, rivers, str irrigation canals and di	perennial DISTI & Seams, creeks,	<u>X</u>	Less than 200 feet 200 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	0_
P:\pits\PrrC@.\VK3	cenes. ;	R	ANKING SCORE (TOTA	L POINTS):	10

Date Remediation S	Started:	11/9/93			Date Completed:	7/8/97
i	Ex	cavation	<u>X</u>		Approx. cubic	vards 85
	La	ndfarmed	<u>X</u>		Insitu Bioremed	diation
	Ot	her Ris	k Assess	ment		
Remediation Metho	od:	Onsite _	X	Off	site	
(Check all appropria	ate					
sections)						
to bedrock at a concentrations and was found	depth of 5 above NMo to be below ed on this in	feet on 5/2 OCD and E NMOCD oformation	20/94 and BLM guing and BLI and the	d 5/11/95. delines. T M guidelin physical le	A sample was The landfarm was nes. The site was	he pit was excavated tested and provided as tested on 8/16/95 as risk assessed on it, there is no risk to
Ground Water Encor	untered:	No _	X		Yes	Depth
Final Pit: Closure Sampling:	Sample loca	tion Ap	proxima	itely 20 fe	et NW (down g	gradient) of original
(if multiple samples, attach sample results		pit	<u>t.</u>			
and diagram of sample	Sample dept	h 3.5' be	low grou	und level		
locations and depths)	Sample date					mple time11:48
	Sample Resu	***************************************	<u> </u>			11.10
	Ве	nzene(ppm)		ND		
	То	tal BTEX (PP	M)	.0817	·	
	Fie	ld Headspace	(ppm) _	120.2	 -	
	TP.	Н	320			
Ground Water Sample:	Yes	No	X	(if	yes, attach sample	results)
HEREBY CERTIFY TH. OF MY KNOWLEDGE A		RMATION A	BOVE IS T	IRUE AND	COMPLETED TO	THE BEST
DATE	-8-97 .1.4		PRINT	ED NAME	Bob Wirtar	nen
SIGNATURE KA	Wita		and 717	T LE	Sr. Safety & E	nvironmental Special

	ENVIROTECH Inc.	PIT NO: PA076
5796	5 US HWY. 64, FARMINGTON, NM 87401 (505) 632-0615	C.O.C. NO:
FIELD REPORT: SIT	E ASSESSMENT	JOB No: 93163 PAGE No: 1 of 1
PROJECT PIT ASSESSMENT CLIENT PHILLIPS PETROLEUM CONTRACTOR: ENVIROTECH, INC. EQUIPMENT USED: CASE EXTEND-A-1	DIG	DATE STARTED: 11-9-93 DATE, FINISHED: 11-9-93 ENMRO, SPCLT: REO OPERATOR: CIMARRON ASSISTANT: K.S.
LOCATION: LEASE: San Juan 29-6 SEC: 32 TWP: 29N RNG: 6W	PM: NM CNTY: R.A. ST: NM PI	EL, 1150' FSL (0) IT: Sep.
LAND USE: Range - SURFACE CONDITIONS: Earthen	Pit - Fenced 20' x 22' Black	surface stain
CLOSURE STD: 1000 ppm TPH RANKING SCORE: 10	TELY 70 FEETN. 85° WOF WELLHEAD T1 : Moist>Wet Clayey silt - Heavy Odor - Highly Conta	- Gray -
	(1412 : Dilute 10:1 = 1178 : 1:1 (1412 : Dilute 10:1 = 478x2x10 = (25 x 2 = 50)	9560)
SAMPLE INVENTORY SMPL SMPL LABORATORY ANALYSIS: C#0305T1@ 5' Soil 87,000ppm C#0307T3@5.5' Soil 9,560ppm C#0307T3@5.5' Soil 50ppm	TH#: 1 TH# 2 TH#: SOIL SWITE OVW/ SOIL SWITE OVW/ SOIL SWITE OVW/ TYPE:	PE: TPH TYPE: TYPE: TPH
SCALE 0 10 20 FEET SITE DIAGRAM Surface 9 radient	4 -Brown/Gray - Gray - Brown/Gray - Brown/Gray - Gray - Brown/Gray - Brown/Gray - Brown/Gray - Brown/Gray - TD = 5' SM GRE - TD = 7	Odor
Prod TL. Plume estimate	8 -	
Well -	12 13 14 SOI TIPE: C - Cap, M - SAL S - Sond, O - Crewd - Plasticity: C - Nord, H - Pl	solic Orading: P - Poorly, W - Will



ENVIROTECH LABS

5796 US Highway 64-3014 • Farmington, New Mexico 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Phillips Petroleum

Sample ID:

Project Location:

Laboratory Number:

T1 @ 5'

San Juan 29-6, #25A

GAC0305

Project #:

Date Analyzed:

93163 11-09-93

Date Reported:

11-15-93

Sample Matrix:

Soil

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

87,000

1,000

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample

TPH mg/kg _____

Duplicate TPH mg/kg %

1,000

890

*Diff.

12

*Administrative Acceptance limits set at 30%.

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

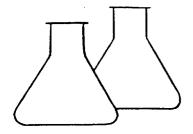
Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Separator Pit PA076

E. O'Neil



5796 US Highway 64-3014 • Farmington, New Mexico 87401 Phone: (505) 632-0615 • Fax: (505) 632-1865

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Phillips Petroleum

Sample ID:

T2 @ 5'

Project Location:

San Juan 29-6, #25A

Laboratory Number: GAC0306

Project #:

93163

Date Analyzed:

11-09-93

Date Reported: Sample Matrix:

11-15-93

Soil

. Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

9,600

100

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg

Duplicate TPH mg/kg

% *Diff.

1.000

890

12

*Administrative Acceptance limits set at 30%.

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

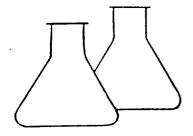
USEPA Storet No.4551, 1978

Comments:

Separator Pit PA076

Analyst

Review Journa



VIROTECH I

5796 US Highway 64-3014 • Farmington, New Mexico 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Phillips Petroleum

Project #:

93163

Sample ID:

T3 @ 5.5'

Date Analyzed:

11-09-93

Project Location:

San Juan 29-6, #25A

Date Reported:

11-15-93

Laboratory Number:

GAC0307

Sample Matrix:

Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	50	10

ND = Not Detectable at stated detection limits.

OA/OC:

QA/QC Sample TPH mg/kg _____

Duplicate

%

TPH mg/kg

*Diff.

1.000

890

12

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

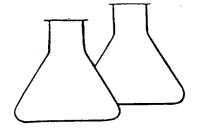
USEPA Storet No.4551, 1978

Comments:

Separator Pit PA076

^{*}Administrative Acceptance limits set at 30%.

CLIENT: PHILLIPS PETROLEUM ENVIROTECH Inc.	PIT NO:PA076
5796 US HWY. 64, FARMINGTON, NM 87401 (505) 632-0615	C.O.C. NO:3666
FIELD REPORT: CLOSURE VERIFICATION	JOB No: <u>93163</u> PAGE (No: <u>1</u> of <u>1</u>
LOCATION: NAME: San Juan 29-6 WELL #: 25A PIT: Sep.	DATE STARTED: 5/20/94 DATE FINISHED: 5/20/94
QUAD/UNIT: 0 SEC: 32 TWP: 29N RNG: 6W BM: NM CNTY:R.A.ST:NM QTR/FDDTAGE: 1150' FSL, 1460' FEL CONTRACTOR: Cimarron	ENVIRONMENTAL SPECIALIST: TH
SOIL REMEDIATION: EXCAVATION APPROX. 27 FT. x 23 FT. x	
DISPOSAL FACILITY: On-site Landfarm CUBIC YARI	DAGE:
LAND USE: Range LEASE: # E-289-36	5
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 70 FEET N.	· ·
DEPTH TO GROUNDWATER: 55 NEAREST WATER SOURCE: >1000' NEAREST SURFACE	E WATER: <u>>1000 '</u>
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM	
SOIL AND EXCAVATION DESCRIPTION: 0'-4' Red Clay 4'-5' BEDROCK	
Sample T3@4' collected at 13:15 - sent to	lab TPH (418.1) & BTEX (8020)
Excavation is as far north as possible, as f	
and in bedrock	
FIELD 418.1 CALCULATIONS SAMPLE I.D. LAB No: WEIGHT (g) ML. FREON DILUTION READING CALC	. ppm
SCALE	
O FEET OVM PIT PERIMETER RESULTS PIT	PROFILE
SAMPLE FIELD HEADSPACE PID (som)	
A surface 17104' 773 27204' 736	
[3T3@4' 899]	
474@4 347 515@6 261	
	<u> </u>
[[] N	
Z3' o LAB SAMPLES	5 3 / =
Dehyd Dehyd T3@4' TPH & BTEX	
A' why	-
TRAVEL NOTES: CALLOUT: ONSITE: 5/20/94	



ENUROTECH LAIS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

93163 Project #: Client: Phillips 05-20-94 Date Sampled: T3 @ 4' Sample ID: Date Received: 05-23-94 7485 Laboratory Number: Date Analyzed: 05-26-94 Soil Sample Matrix: 05-26-94 Date Reported: Cool Preservative: Cool and Intact Analysis Needed: TPH Condition:

Concentration Limit
Parameter (mg/kg) (mg/kg)
Total Petroleum
Hydrocarbons 7,700 250

ND = Parameter not detected at the stated detection limit. N/A = Not applicable

Method:

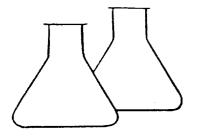
Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978

Comments: San Juan 29-6 #25A Sep Pit PA076

Analyst

Review



ENJIROTECH LAS

5796 US Highway 64-3014 • Farmington, New Mexico 87401 Phone: (505) 632-0615 • Fax: (505) 632-1865

ÉPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Phillips	Project #:	93163
Sample ID:	т з @ 4′	Date Reported:	05-24-94
Laboratory Number:	7485	Date Sampled:	05-20-94
Sample Matrix:	Soil	Date Received:	05-23-94
Preservative:	Cool	Date Extracted:	05-24-94
Condition:	Cool & Intact	Date Analyzed:	05-24-94
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	900	13.2
Toluene	26,000	26.4
Ethylbenzene	6,300	13.2
p,m-Xylene	48,800	26.4
o-Xylene	29,500	19.8

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	99 %

Method:

Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: San Juan 29-6 #25A Separator Pit PA076

Analyst

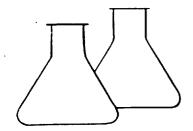
Review

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		ı	IDOISON OF SOURCE		חביים			(
Client/Project Name		Project Location				4	ANIAI VOIC/DADAMETERS	METERS		
		Sn Jun 29-6 #25A	#25/A Sep (1+	+		ANAL	1010/1780A			
Sampler: (Signature)		Chain of Custody Tape No.	No.						Remarks	
1-19				oţ				<u>.</u>		
Sample No./ Sample Identification Date	Sample Time	Lab Number	Sample Matrix	.oV sinoO	H17 (1:214)	(2013)				
13 (v. 4) 5/2/14	5/20/14 13:15	2485	Sol	_	×					
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				-						
Relinquished by: (\$ignature)			Date Time	Received by	Received by: (Signature)				Date	Time
12/50			5/23/ay 7:25	2	- Jus	Tisk	þ		5/23/61	72
Relinquished by: (Signature)				Received by	Received by: (Signature)					
Relinquished by: (Signature)				Received by	Received by: (Signature)					
			ENVIROTECH INC. 5796 U.S. Highway 64:3014 Farmington, New Mexico 87401	TECH IN ghway 64-3 w Mexico	IC. 314 87401					
			o (coc)	c100-200 (cnc)				-	uen juen	sen juan repro Form 578 81

			NVIROTECH	NGTON, NM	87401	PIT No:_ C.O.C #:_	PA076
FIELD	REPORT:		(505) 632-06 ATION FA E VERIFI	CILITY		JOB No: PAGE No: _	93163
FACILITY LOCATION: SOURCE LOCATION: SOURCE LOCATION:		1 29-6 # 25A	1			DATE STARTED: _ DATE FINISHED: _	9/19/94 9/19/94
SOURCE LOCATION: FACILITY CLASSIFICA		arm	PIT	TYPE: Se		ENVIRONMENTAL SPECIALIST:	
SOIL REMEDIATI		TITY: 1 DNS: 87' DNS: Clay a	32 cy x 41' x 1 and Sand, ta pint compos	an, brown		F COMP. SAI	MPLES:1
NEAREST WATER NEAREST SUF MAX TP NO. 0 COMPOS YAI	GROUNDWATER:	55' >1000'		APPROX			WELLHEAD.
FACILITY	DIAGRAI	M GF	RID SCALE: 1	" = 20'			
+	+ +	+ +	+	+	OVM RESUL SAMPLE FIELD HE ID: FIELD HE		4
+	+ +	+ +	+	+	C1 1	8 NI	JRTH
* X	+ +	+ + + C 1	* X	+			4
+ + +	+ +	X	+	+	LAB RESUL SAMPLE ANALYSIS 10: REQUESTEE		4
×	_,t		X		CI TPH GAC #768	1 1 7 -	FACE W DIR.
+	+ +	+ +	+	+		GROUI	IMATED NDWATER W DIR.



Envirotech Labs

5796 US Highway 64-3014 • Farmington, New Mexico 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Phillips Petroleum

Sample ID:

C1

Project Location: Laboratory Number:

Petroleum Hydrocarbons

San Juan 29-6 # 25A

GAC0768

Project #:

93163

Date Analyzed: Date Reported: 9-19-94

9 - 26 - 94

Sample Matrix:

Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	2,080	100

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg _____

Duplicate TPH mg/kg

% *Diff.

126

_----142

12

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

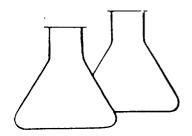
USEPA Storet No.4551, 1978

Comments:

Separator Pit PA076

^{*}Administrative Acceptance limits set at 30%.

							-			
				5796	US HWY		ECH Inc RMINGTON, -0615	NM 87401	(PIT No: <u>PA076</u> c.o.c #: <u>4150</u>
	FIELI) RE	PORT:				FACILIT IFICATION			3 No: 93163 3E No: 1 of 1
SOUP	LITY LOCATION:	Se	an Juan ec. 32	29-6	# 25A Arriba		NM .		DATE ST	ARTED: 4-6-95 NISHED: 4-6-95
SOUP	RCE LOCATION RCE LOCATION: LITY CLASSIFIC		Lar	ndfarm			PIT TYPE:_	Sep.	ENVIRON SPECIALI	MENTAL CJC
SOI	L REMEDIAT VISIBL SAMPLIN	E OBS	QUANT DIMENSIO SERVATIO AN:	ONS:	45' x			# OI	F COM	P. SAMPLES:1
NEAF	DEPTH TO REST WATER NEAREST SL MAX TI No. COMPOS YA	GROUN SOURI JRFACE PH PEF OF 5-1 SITE S SITE S ARDAGE 0-20 201-400 11-1000	DWATER: CE/TYPE: WATER: R NMOCD: POINT AMPLES:# 000 0=2 =3 1=5	55' >1000' >1000' 1000'				•		_FROM WELLHEAD.
Ι Γ	FACILITY	DL	AGRAN	Λ	GRID	SCALE		OVM		
ļ	₊ X	+	+	+	+	+	×	RESUL'		4
	+	+	+	+ X	' +	+	+	G1 12	.0	NORTH
	+	+	+	· C	+	+	+			4
	X	+	+	÷	+	+	X	LAB		WELLHEAD
	+	+	+	. +	+	+	+	RESUL'	RESULTS	4
	+	+	+	+	+	+	+	C1 TPH	1080	SURFACE FLOW DIR.
+	+	+	+	+	+	+	. +			4
										ESTIMATED GROUNDWATER FLOW DIR.



ENVIROTECH LABS

5796 US Highway 64-3014 • Farmington, New Mexico 87401 Phone: (505) 632-0615 • Fax: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Project #: 93163 Client: Phillips Date Reported: 04-13-95 29-6 #25A Sample ID: Date Sampled: 04-06-95 Laboratory Number: 8339 Date Received: Chain of Custody No: 4150 04-06-95 Date Extracted: 04-12-95 Soil Sample Matrix: Date Analyzed: 04 - 12 - 95Preservative: Cool Analysis Needed: TPH Cool and Intact Condition:

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	1080	10.0

ND = Parameter not detected at the stated detection limit.

Method: Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978.

Comments:

Analyst

May 1. Jerelle

		Remarks											Date
	ANALYSIS/PARAMETERS												
Y RECORD		ยาลก	SIA SIA No.	× ~	X	× × 7	×	×	. >	· ×	, X	メ ン	Received by: (Signature)
CHAIN OF CUSTODY BECORD		10.	Sample Matrix	50:1								>	Date Time Receiv
Ö	Project Location	Chain of Custody Tape No.	Lab Number	8332	8333	\$33t	, 8335	1 8336	2 8337	2338	1224 8337	1 8340	
	63	Alex.	Sample Sample Date Time	841 594	11 11 1537	1391 ,, ,,	4211 + 11	1741 111	11 11 1342	11/1/11/11	11 11	11 11 1024	. 40
	Client/Project Name Phillips / 93163	Sampter (Signature)	Sample No/ Identification	29-5#59	26-2#B-26	36-5461	2-6+SEA	29-5# H	発力井び	29-6# 100	29-64254	29-5 # 55K	Relinquished by: (Signature)

ENVIROTECH INC. 5796 U.S. Highway 64:3014 Farmington, New Mexico 87401 (505) 632-0615

Received by: (Signature)

Received by: (Signature)

Relinquished by: (Signature)

		באוווסי	PECH Inc			
	:	HWY. 64.	FARMINGTON, N	M 87401	PIT No: P.	
TITLD DEDODE		(505) 6	32-0615 		JOB No: 931	
FIELD REPORT:			FACILITY RIFICATION		PAGE No:	of _1_
FACILITY LOCATION: San Juan Source Location:		² 25A			DATE STARTED: 5- DATE FINISHED: 5-	10-95 10-95
SOURCE LOCATION:			PIT_TYPE:Se	- D	ENVIRONMENTAL CJO	<u> </u>
SOIL REMEDIATION: QUANTI	TY:		су	A	COMP. SAMPI	LES:1
DIMENSIO VISIBLE OBSERVATIO	NS:33	3' x 69'	x .5'			
SAMPLING PLAN:	- 1	5-point	composite			
FIELD NOTES & REMARKS; FA	ACILITY CE	NTER LOC	ATED APPROX	<u>30</u> YARDS	SE FROM WI	ELLHEAD.
DEPTH TO GROUNDWATER: NEAREST WATER SOURCE/TYPE: NEAREST SURFACE WATER: MAX TPH PER NMOCD: No. OF 5-POINT COMPOSITE SAMPLES: YARDAGE# 0-200 201-400=2 401-1000=3 1000=5	>1000' 1000 ppm		$1: \frac{20}{10.26} $ x	10 x 140 =	2730	
FACILITY DIAGRAM		GRID SCAL	E: 10'			
X + X+	+	+ +	+	OVM RESUL'	rs	
+ + +	+	+ +	+	CI 6	.0 A	-
+ <u>Ct</u> +	±	+ +	+		4-	-
+ + +	÷	+ +	+	LAB RESULT	WELLHE	AD
+ + +	+	+ +	+	ID: REQUESTED:	RESULTS PPM:	-
X+	÷ .	+ +	+	CI TPH	SURFAC FLOW I	
+ + +	+ -	+ +	+		ESTIMATI GROUNDWA	ATER



Client:

PHILLIPS PETROLEUM

93163

Sample ID:

Project #: Date Analyzed: 05/11/95

Project Location: San Juan 29-6, #25A

Date Reported: 05/18/95

Laboratory Number: GAC1055

Sample Matrix:

Soil

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

2,700

100

ND = Not Detectable at stated detection limits.

QA/QC:

Original TPH mg/kg Duplicate TPH mg/kg Diff.*

13

26

*Administrative Acceptance limits set at 30%.

Method:

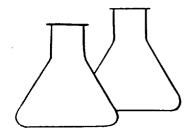
Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

US EPA Storet No.4551, 1978

Comments: Separator Pit # PA076

CLIENT PHILLIPS PETROLEUM ENVIROTECH Inc.	PIT NO: PAO76
5798 US HWY 64, FARMINGTON, NM 87401 (505) 632-0615	· C.O.C. NO:
FIELD REPORT: CLOSURE VERIFICATION	JOB No: 93163 PAGE No: 1 of 1
LOCATION: NAME: San Juan 29-6 WELL #: 25A PIT: Sep QUAD/UNIT: 0 SEC: 32 TWP: 29N RNG: 6W BM: NM CNTY:R.A.ST:NI	
OTR/FDDTAGE:1150' FSL & 1460' FEL CONTRACTOR:	ENVIRONMENTAL SPECIALIST: CJC
SOIL REMEDIATION: EXCAVATION APPROX. 27 FT. x 27 FT. DISPOSAL FACILITY: On-Site Landfarm CUBIC YA	ARDAGE: <u>135</u>
LAND USE: Range LEASE: # E-289	3-36
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY	
NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM	
SOIL AND EXCAVATION DESCRIPTION:	
SCALE NW @ 5' 1057 10.51 20.0 100 117	15,000 22,300 12,200 15,800 17,700
SAMPLE FIELD HEADSPACE	PROFILE
1 WW 4	ard sandstone
TRAVEL NOTES:	
CALLOUT: ONSITE:	



ENVIROTECH LABS

5796 US Highway 64-3014 • Farmington, New Mexico 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

THE REPORT OF PERSONS AND A STREET OF THE PERSON OF THE PE

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

PHILLIPS PETROLEUM

93163

Sample ID:

W. Wall @ 4'

Project Location:

San Juan 29-6, #25A

05/11/95 05/18/95

Laboratory Number:

GAC1056

Date Reported: Sample Matrix:

Date Analyzed:

Project #:

Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable		
Petroleum Hydrocarbons	15,000	1,000

ND = Not Detectable at stated detection limits.

QA/QC:

Original TPH mg/kg Duplicate TPH mg/kg %

10

13

Diff.*

26

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

US EPA Storet No.4551, 1978

Comments:

Separator Pit # PA076

Review/

^{*}Administrative Acceptance limits set at 30%.



Client: PHILLIPS PETROLEUM Project #: 93163
Sample ID: N. Wall @ 5' Date Analyzed: 05/11/95
Project Location: San Juan 29-6, #25A Date Reported: 05/18/95

Laboratory Number: GAC1057

Sample Matrix: Soil

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

22,000

1,000

ND = Not Detectable at stated detection limits.

QA/QC:

Original TPH mg/kg

Duplicate TPH mg/kg

Dift.*

*Administrative Acceptance limits set at 30%.

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste,

US EPA Storet No.4551, 1978

Comments: Separator Pit # PA076

My W for the



Client:

PHILLIPS PETROLEUM

Project #:

93163

Sample ID:

Bottom @ 5'

Date Analyzed: 05/11/95 Date Reported: 05/18/95

Project Location: San Juan 29-6, #25A

Laboratory Number: GAC1058

Sample Matrix:

Soil

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

12,000

1,000

ND = Not Detectable at stated detection limits.

QA/QC:

Original TPH mg/kg Duplicate TPH mg/kg

Diff. '

*Administrative Acceptance limits set at 30%.

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

US EPA Storet No.4551, 1978

Comments: Separator Pit # PA076

May W Enller Review



Client: PHILLIPS PETROLEUM Sample ID: E. Wall @ 5' PHILLIPS PETROLEUM

Project #: 93165 Date Analyzed: 05/11/95 Date Reported: 05/18/95 Sample Matrix: Soil

Project Location: San Juan 29-6, #25A

Laboratory Number: GAC1059

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

16,000

1,000

ND = Not Detectable at stated detection limits.

QWQC:

Original TPH mg/kg Duplicate TPH mg/kg

Dirr.

*Administrative Acceptance limits set at 30%.

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste,

US EPA Storet No.4551, 1978

Comments: Separator Pit # PA076

May W. Jendle



Client:

PHILLIPS PETROLEUM

Sample ID: S. Wall @ 5'
Project Location: San Juan 29-6, #25A

Project #: 93163
Date Analyzed: 05/11/95
Date Reported: 05/18/95

Laboratory Number: GAC1060

Sample Matrix: Soil

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

18,000

1.,000

ND = Not Detectable at stated detection limits.

QA/QC:

Original TPH mq/kq Duplicate TPH mg/kg

Diff.*

*Administrative Acceptance limits set at 30%.

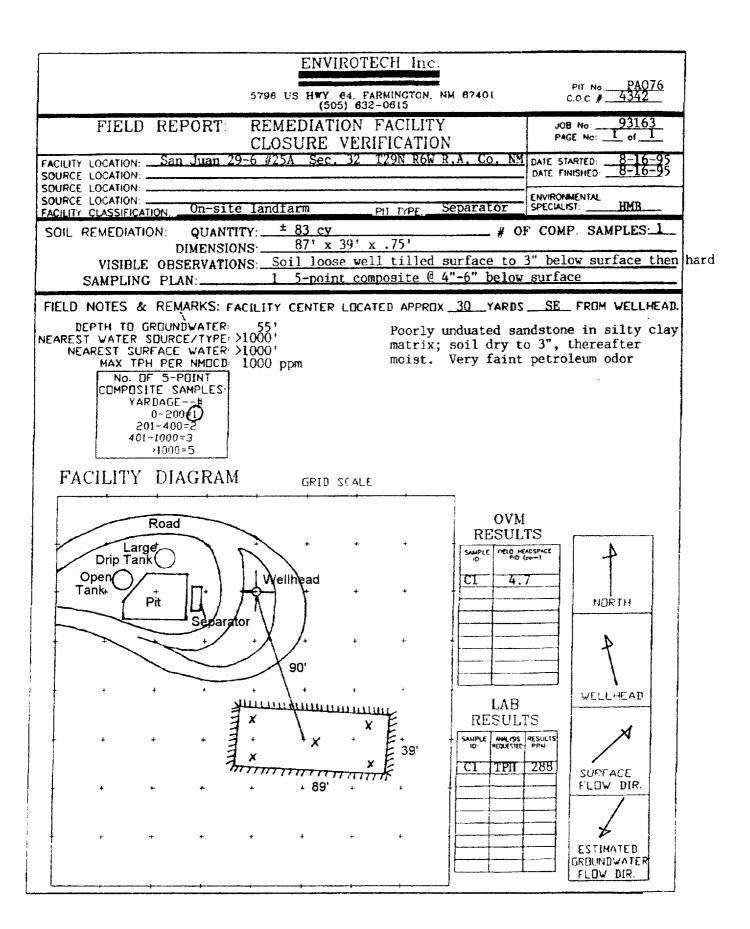
Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

US EPA Storet No.4551, 1978

Comments: Separator Pit # PA076





EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	San Juan 29-6 #25 A MV C1	Date Reported:	08-18-95
Laboratory Number:	8801	Date Sampled:	08-16-95
Chain of Custody No:	4342	Date Received:	08-16-95
Sample Matrix:	Soil	Date Extracted:	08-17-95
Preservative:	Cool	Date Analyzed:	08-18-95
Condition:	Cool and Intact	Analysis Needed:	TPH

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

Total Petroleum Hydrocarbons

288

10

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments:

PA076. Various Landfarms.

Analyst

Review

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				CHAIN OF CL	OF CUSTODY RECORD	Y RE	CORD		•		
	2	43163	Project Location								
PHILLIPS Petrolown	loum		Vorious	(and farms				ANALYSIS/PARAMETERS	RAMETERS		
Sampler: (Signature)			Chain of Custody Tape No.	00 No.		91.2				Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix		No. ol Contain	HOT.				
SAUTION 29-6#25AMV 8-16-95	5-16-95	11:34	\$201	Soil		-	\				,
Sew Juan 29-6#100 DK 8-16-95	8-16-95	12:37	2088	5011		-	\				
5A4 Juan 29-6#484V 8-16-95	۶۱ 6- 45	13:42	8203	Soil		_				IF TPH > 100ppm.	1
SAN Juan 29-6#48 HV 8-16-95	8-16-95	13:59	7088	Soic		_	7				Pr Pr
SAR Than 29-6#48MV	8-16-95	14:15	Sos	5016		-	7			INEN 8020 BTEX	X L
SANJUAN 52-646 F/PC 8-16-95	2-19-6	16119	3028	Soil		-	7			INEW BOZO B	ğ
SAW JUAN 32-7 #80PC 8-16-95	8-11-6	16:55	4088	Soir		-	7				
STEWARTA CON B#3 8	8-11-95	19:47	2083	Soil		-	7				
-											
Sign] /					Received by: (Signature)	nature)			Date	Time
March 7 War	سحتمه	Λ		8.16.95 19:35	<u>کر</u> ام	\Rightarrow	1	Dencer	1	8-16-90	5261
Relinquished by: (Signature)					Received	Received by: (Signature)	nature)			?	
Relinquished by: (Signature)					Received	Received by: (Signature)	nature)				
				ENVIRC 57% U.S.	ENVIROTECH INC. 57% U.S. Highway 64:3014	INC.					
				Farmington, New Mexico 87401 (505) 632-0615	on, New Mexic (505) 632-0615	0 87401					
										as verif vee	sen juan repro form 678-81

Risk Assessment San Juan 29-6 #25A

Depth to Groundwater	55'
Distance to Water Source	>1000,
Distance to Surface Water	>1000'
TPH Limit (ppm)	1000

The subject pit was located in sandy/clay/silt soil. The initial size of the pit was 20' x 22' x 3' deep. The stained soil was excavated to a final size of 27' x 27' x 5' deep. Excavated soil amounted to approximately 85 total cubic yards, and was landfarmed on location.

The excavation was assessed by Envirotech on 11/9/93. Three test holes were utilized for assessment. Test hole # 1 was established in the deepest part of the pit with a total depth of 5 feet, where bedrock was encountered. Headspace analysis of the test hole # 1 at 5 feet revealed a concentration above NMOCD closure guidelines. Test hole # 2 was established approximately 15 feet north of the pit to a total depth of 5 feet where bedrock was encountered. Sampling of test hole # 2 at 5 feet also revealed concentrations above NMOCD guidelines. Test hole # 3 was established approximately 45 feet north of the pit at a total depth of 5.5 feet where bedrock was encountered. Sampling of test hole # 3 at 5.5 feet revealed an OVM reading of 7.3 parts per million (ppm) and a TPH concentration of 50 ppm. Excavation of the walls and bottom was performed on 5/20/94. The excavation proceeded to an average depth of 5 feet. The excavated pit was tested on 5/11/95 and the samples revealed concentrations above NMOCD and BLM guidelines. The landfarm was tested by Envirotech on 8/16/95 and was found to be within closure standards (TPH = 288 ppm and an OVM reading of 4.7 ppm).

On July 8, 1997, Cimarron Oilfield Services bore seven test holes for risk assessment analysis. The bore holes were established approximately 20 to 50 feet from the excavation, to depths ranging from 3.5 to 5 feet. Bedrock was encountered at each bore hole. Differences in depth to bedrock were due to the contour of the location and not the gradient of the bedrock. A sample was retrieved from the bottom of each bore hole and headspace analysis was performed. Headspace analysis (OVM) concentrations ranged from 120 ppm to 0 ppm. Bore hole # 4 at 3.5 feet was re-sampled and delivered to Inter-Mountain Laboratories for TPH analysis, utilizing EPA Method 8015, and BTEX analysis, utilizing EPA Method 8020. Results of the analysis determined a TPH concentration of 320 ppm, a non-detect concentration of Benzene, and a Total BTEX concentration of .0817 ppm. Bore hole # 7 at 4 feet was also re-sampled and delivered to Inter-Mountain Laboratories for TPH analysis, utilizing EPA method 8015. Results of the analysis determined a TPH concentration of 11 ppm. No groundwater was encountered, and first water was not recorded on the nearby cathodic well until a depth of 40 feet. The bore holes were backfilled with well cuttings.

Having achieved action levels below NMOCD requirements, this pit should be considered to have reached "final closure". Phillips Petroleum has removed and remediated all soils to the extent practical. By filling the excavation, the driving force created by additional fluids will be eliminated. Based on this information and the physical location of the pit, there is little to no risk to human health or environment.

			Overview of Pit Location and Samplin	ng :	
				Depth (ft)	
	A A COLL PAGE STORY		- 1 on		. <u></u>
Quad: O	Section: 32		150	ا Sanc	sand/clay sand/clay silt silt
			Z	4 samı	sample #1 sample #2
Township: 29 N	Range: 6 W		Bore#3 Cat	athodic line 5 Bec	
P# .	Sample # Location	ion OVM TPH	\ <u>\</u>		
Sep./Dehy.	8		「***/	Flectric Bor	Bore #3 Bore #4
	2 BH#2@4)4' 2.1	Bore #7/ Y tank * Bore #2		slightly moist moist
Reference:	3 BH#3@5			N	—,
70' N 85 W	4 BH#4@3.5	3.5' 120.2	Bore # 4 Bore # 1	سر	ay
	5 BH#5@3.5	3.5' 16.4	»`` 	ر ا د	1 "
From Wellhead	6 BH#6@3.5)3.5' 0	PIT * Sep.	<u>5</u>	sample # 3 Bedrock
	7 BH#7@4	0	anchor *	တ	Bedrock
	8		× S	Weinead	
Pit Size :	80		Dehv.	Bor	Bore #5 Bore #6
20' x 20' x 3' deep	10		Meterhouse	1 moist	moist, brown moist, brown
	1 1 1				gr. sandstone sand/clay/silt
Total to Company of the	7	Ł			sample # 5 sample # 6
55'	out Type.	pe . Salkurcia yisiii.		5 Bec	Bedrock Bedrock
Ranking Score:	Bedroc	Bedrock Encountered :		ത	
Closure Standard	D. Toronto	Groundwater Encountered :	Grav	adient	
1000 ppm		None		1_	
Comments :					
Bore Hole # 1	1 '	Soil is moist, brown, sand/clay/siit. No	No staining or odor.		
Dom Linia # 2	٠ ا	Soil is moist brown conditionalistic No oder or staining	No odor or staining.		
Bore Hole #4-	#4 - Soil is moist.	Bore Hole # 4 - Soil is moist, light brown, sand/clay/sit. No odor or staining	No odor or staining.		
Bore Hole # 5	•	Brown, moist, sand/clay/silt. Soft gray sandstone @ 2'.	andstone @ 2'. No odor.		
Bore Hole # 6		Soil is moist, brown, sand/clay/silt. No			
Bore Hole # 7	[••	Soil is moist, brown, sand/clay/silt. No	No odor or staining.		
Sample #4	sent to IML labora	19	EX 8020.		
Sample #	7 sent to IML labor	sent to IML laboratory for TPH 8015.			

CASE NARRATIVE

Client: PHILLIPS PETROLEUM COMPANY

Project: SJ 29-6 #25A, Sep. Pit Received on: 07/09/97

Set ID: 0597H03632 # samples: 2

Suites: TPH (DRO), TPH (GRO)

Samples were received for analysis at Inter-Mountain Laboratories (IML), Bozeman, Montana. Enclosed are the results of these analyses.

Limits of detection for each instrument/analysis are determined by sample matrix effects, instrument performance under standard conditions, and dilution requirements to maintain chromatography output within calibration ranges. Quantitations have been calculated on an as received basis.

Quality Control reports have been included for your information and use. These reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please contact me at (800) 828-1413.

Wes Harvey

IML-Bozeman

DIESEL RANGE ORGANICS - DRO

1160 Research Drive Bozeman, Montana 59718

Client:

PHILLIPS PETROLEUM COMPANY

Sample ID: Bore Hole #4 @ 3.5 ft. SJ 29-6 #25A, Sep. Pit

Project ID: Lab ID:

B973632

0397G01353

Matrix:

Soil

Date Received: Date Extracted:

Date Reported:

Date Sampled:

07/28/97 07/08/97 07/09/97

Date Analyzed:

07/21/97 07/24/97

Parameter	Result	PQL	Units
Diesel Range Organics	180	5.0	mg/kg
Diesel Range Organics as Diesel	180	5.0	mg/kg
Total Extractable Hydrocarbons	280	5.0	mg/kg

ND - Not Detected at Practical Quantitation Level (PQL)

Reference: DRO - USEPA Method for Determination of Diesel Range Organics. Revision 3, 05/08/92.

WTPH-D Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of

Ecology, Revision 3, October 1991.

Analyst

Reviewed 5

1160 Research Drive Bozeman, Montana 59718

GASOLINE RANGE ORGANICS - GRO

Client:

PHILLIPS PETROLEUM COMPANY

Sample ID: Bore Hole #4 @ 3.5 ft.

Project ID: SJ 29-6 #25A, Sep. Pit

Lab ID:

B973632

0397G01353

Matrix:

Soil

Date Reported: Date Sampled:

07/21/97 07/08/97

Date Received: Date Extracted: 07/09/97

Date Analyzed:

07/17/97 07/18/97

Parameter	Result	PQL	Units
Gasoline Range Organics	7.0	5.0	mg/kg
Gasoline Range Organics as Gasoline	7.0	5.0	mg/kg
Total Purgeable Hydrocarbons	40	5.0	mg/kg
QUALITY CONTROL - Surrogate Recovery	%	QC Lim	nits
Bromofluorobenzene	125	40 -	163

ND - Not Detected at Practical Quantitation Level (PQL)

Reference: GRO - USEPA Method for Determination of Gasoline Range Organics, Rev. 5, February 1992.

WTPH-G Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of

Ecology, Revision 6, 08/18/93.

50 Analyst

VOLATILE AROMATIC HYDROCARBONS

PHILLIPS PETROLEUM

Project ID: Sample ID: Lab ID: Sample Matrix:

SJ 29-6 #25A, Sep. Pit Bore Hole #4 @ 3.5 ft. 0397G01353

Soil

Condition:

07/23/97 Report Date: Date Sampled: 07/08/97 Time Sampled: 11:48am Date Received: 07/08/97 Cool/Intact Date Extracted: NA

> 07/16/97 Date Analyzed:

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	10.0
Toluene	ND	10.0
Ethylbenzene	29.8	10.0
m,p-Xylenes	19.7	10.0
o-Xylene	32.2	10.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate

Percent Recovery

Acceptance Limits

Bromofluorobenzene

139%*

70%-130%

Reference:

Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental

Protection Agency, September 1986.

Comments:

*Surrogate did not recover due to matrix interferences.

Review

DIESEL RANGE ORGANICS - DRO

1160 Research Drive Bozeman, Montana 59718

Client:

PHILLIPS PETROLEUM COMPANY

Sample ID: Bore Hole #7 @ 4 ft.

Project ID:

SJ 29-6 #25A, Sep. Pit

Lab ID: Matrix: B973633

Soil

0397G01354

Date Reported: Date Sampled: Date Received: 07/28/97 07/08/97

Date Extracted:

07/09/97 07/21/97

Date Analyzed:

07/24/97

Parameter	Result	PQL	Units
Diesel Range Organics	ND	5.0	mg/kg
Diesel Range Organics as Diesel	6.4	5.0	mg/kg
Total Extractable Hydrocarbons	11	5.0	mg/kg

ND - Not Detected at Practical Quantitation Level (PQL)

Reference: DRO - USEPA Method for Determination of Diesel Range Organics. Revision 3, 05/08/92.

WTPH-D Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of

Ecology, Revision 3, October 1991.

Analyst

GASOLINE RANGE ORGANICS - GRO

1160 Research Drive Bozeman, Montana 59718

Client:

PHILLIPS PETROLEUM COMPANY

Sample ID: Bore Hole #7 @ 4 ft.

Project ID:

SJ 29-6 #25A, Sep. Pit

Lab ID:

Matrix:

B973633

Soil

0397G01354

Date Reported:

07/21/97

Date Sampled: Date Received: 07/08/97

Date Extracted:

07/09/97 07/17/97

Date Analyzed:

07/18/97

Parameter	Result	PQL	Units
Gasoline Range Organics	ND	5.0	mg/kg
Gasoline Range Organics as Gasoline	ND	5.0	mg/kg
Total Purgeable Hydrocarbons	ND	5.0	mg/kg
QUALITY CONTROL - Surrogate Recovery	%	QC Limit	ts
Bromofluorobenzene	105	40 - 1	163

ND - Not Detected at Practical Quantitation Level (PQL)

Reference: GRO - USEPA Method for Determination of Gasoline Range Organics, Rev. 5, February 1992.

WTPH-G Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of

Ecology, Revision 6, 08/18/93.

Analyst 50



CHAIN OF CUSTODY RECORD

Client/Project Name	in the following		Project Location				ANALY	SES / PA	ANALYSES / PARAMETERS	Ø	
Sampler: (Signature)	70	Chain o	ody			_			Remarks	arks	
Sample No./	Date Time	Lab Number	er	Matrix	No. of Containe	· · · · · · · · · · · · · · · · · · ·	10 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m				
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Reinquisned by: (Signature)			Date	Time	Received by: (Signature)	Signature)				Date	Time
Relinquished by: (Signature)			Date	Time	Received by laboratory: (Signature)	boratory: (S	ignature)			Date	Time
<u> </u>)	Inter-Mou	Inter-Mountain Laboratories,	ratorie	s, Inc.						
1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	1701 Phillips Circle Gillette, Wyoming 82716 Telephone (307) 682-8945		□■ 2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	eet 401 6-4737	1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450	Drive tana 59718		() Route 3, Box 256 College Station, TX 77845	X 77845	9	(),
			elebrione (202) ac	0-4/3/	Telephone (406) 586-8450) 586-8450		none (409) /	76-8945		