Do not use this form for proposals to de Use "APPLICATION FOR SUBMIT SUB	AND REPORTS ON WELLS rill or to deepen or reentry to a different reservoir. R PERMIT—" for such proposals  TIN TRIPLICATE  armington, NM 87401 505-599-3400  Description)	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993  5. Lease Designation and Serial No. SF-080146  6. If Indian, Allottee or Tribe Name  7. If Unit or CA, Agreement Designation San Juan 29-6 Unit 8. Well Name and No. San Juan 29-6 Unit #7A 9. API Well No. 30-039-21367  10. Field and Pool, or Exploratory Area Blanco Mesaverde  11. County or Parish, State
Section 34, T29N, R6W		Rio Arriba, NM
12. CHECK APPROPRIATE BOX(	s) TO INDICATE NATURE OF NOTICE, REPOF	RT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent  Subsequent Report  Final Abandonment Notice	Abandonment Recompletion Plugging Back Casing Repair Altering Casing Other Pit Closure	Change of Plans  New Construction  Non-Routine Fracturing  Water Shut-Off  Conversion to Injection  Dispose Water (Note: Report results of multiple completion on Well
	subject well's separator has been closetails of the closure are attached.  DECENTED  MAR 2 0 1997  OOL COMO DIVO  DISTO 2	ed and replaced with a
Signed	Title Sr Safety & Environ. Spclst.	
Title 18 U.S.C. Section 1001, makes it a crime for any person or representations as to any matter within its jurisdiction.	knowingly and willfully to make to any department or agency of the United S	tates any false, fictitious or fraudulent statements

District I

P.O. Box 980. Hobbs, NM

District II

P.O. Drawer DD, Ariesia NM 88211

District III

IOOO Rio Brazos Rd, Aztec NM 874 1 0

#### State of New Mexico Energy, Minerals and Natural Resources Department

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

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

#### PIT- REMEDIATION AND CLOSURE REPORT

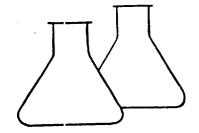
Operator: Phillips Petroleum Company	Telephone: (505) 599-3400	
Address: 5525 Hwy. 64, NBU 3004, Fa	armington, NM 87401	
Well Name		
Location: Unit or Qtr/Qtr Sec_SWNW Sec_34	T 29N R 6W County Rio Arriba,	
Pit Type: Separator X De	Dehydrator Other Condensate Tank	
Land Type: BLM X,	State, Fee, Other	
(Attach diagram)	Length 20 ft, width 20 ft, depth 17 ft	
	head X other	
Footage from refere	rence: 65 ft	
Direction from refe	ference: 45 Degrees X East North of	
	West South X	
Depth to Ground Water: 60 ft	Less than 50 feet (20 points)	
(vertical distance from contaminants to seasonal	X 50 ft to 99 feet (1 0 points)  Greater than 1 00 feet (0 points)	0
highwater elevation of ground water)	VED	
Wellhead Protection Area: (less than 200 feet from a private) (less than 200 feet from a private)	1997 Yes (20 points)	
domestic water source, or: less than I 000 fee: from all other water sources).  Distance to Surface Water:	No (0 points)	0_
Distance to Surface Water: (Horizon al distance to perennial	Less than 200 feet (20 points) 200 feet to I 000 feet (1 0 points)	
lakes, ponds, rivers, streams, creeks, irrigatior canals and ditches.)	X Greater than I 000 feet (0 points)	0_
P:\pits\PrrC@.WK3	RANKING SCORE (TOTAL POINTS):	10

Date Remed	liation Started: 6/29/9	- Da	ated Completed:	2/24/97
	Excavation	X	Approx. cubic	e yards
	Landfarmed	_X	Insitu Biorem	ediation
	Other			
Remediation Method:	Onsite X	Offsit	e	
(Check all appropriate sections)		-		
General Description of	Remedial Action- Bas	sed on the initial as	ssessment, soil	s were excavated to a
depth of 13 feet b	elow the original pit b	ottom. The excav	ated soils were	e landfarmed on location
The landfarm test	ed clean on 10/19/94.	I ne landrarmed s	ous were then	used to fill the
excavation. A risi	k assessment was perf	ormed on 2/24/97	with samples 1	received from 22 and 24
feet below the ori	ginal pit depth. Based	on the risk assess	ment there is 1	ittle or no risk to human
health or environm	··	X Yes		Domth
Ground Water Encount	ered: No	<u>A</u> Yes		Depth
Final Pit:	Sample location <u>Indi</u>	vidual samples we	re collected fro	om each wall, the bottom
(if multiple samples,	of the excavation, a	nd the bottom of t	he boring.	
attach sample results and diagram of sample	Sample depth	28 feet		
locations and depths)	Sample date	2/24/97		Sample time 14:40
	Sample Results Benzene(ppm)	ND		
			<del></del>	
	Total BTEX (	PPM)18.1	_	
	Field Headspa	ce (ppm)	<del></del>	
	TPH	22.4		
Ground Water Sample:	Yes	No X	(if yes, a	ttach sample results)
I HEREBY CERTIFY OF MY KNOWLEDGI	THAT THE INFORMATION E AND BELIEF.	I ABOVE IS TRUE AN	D COMPLETED 1	TO THE BEST
DATE 3-/6	P-87	PRINTED NAM	E BobWirtan	ien
171	8-97 LA Wats			
SIGNATURE V	~ 11 WWW	and TITLE	-Sr. Satety &	Environmental Specialis

.

TO

PIT IS APPROX IS' STHAME



## EN.IROTECH LALS

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 Project #: 93163
Sample ID: T1 @ 13' Date Analyzed: 06-29-93
Project Location: San Juan 29-6 Unit 7A Date Reported: 07-06-93
Laboratory Number: GAC0078 Sample Matrix: Soil Laboratory Number: GAC0078

Parameter

Result, mg/kg

Detection Limit, mg/kg

Petroleum Hydrocarbons

1940

-10

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

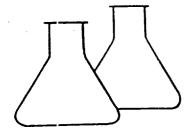
Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments: Sep/Tank Pit PA001

R. E. Grall

#### ENVIROTECH 100 Aq 5796 US HWY. 64. FARMINGTON, NM 87401 (505) 632-0615 JCE No: \_ SITE ASSESSMENT =4GE No: \_\_\_\_ of \_ FIELD REPORT: DATE STARTED: 6-29-8) PIT ASSESS MENTS PROJECT: \_\_\_ CATE FINISHED: PHILL 125 EMRO. SPOLT: REZ CL!ENT: ぺめ CONTRACTOR: ENVIROTECH. INC. / CIMAREON EQUIPMENT USED: BACKHOE ASSISTANT: mit LOCATION: LEASE: SAW 24W 29-SWELL: UPIT # 74 QD: 15% FUL , 895 FWL TWP: 29 N RNG: 6 W PM: N'M CNTY & MARCH ST NM PIT 74-214 RANGE LAND USE: PUT ~ 15 x 15 SURFACE CONDITIONS: EXETHER 65' WELLEHI. PIT IS LOCKED S 45° E From FIELD NCTES & REMARKS: OUM ZEROED ~ 1.7 PM BACK GROUND. TH-MOIST, SAMOY-CLAY, SOFT, MED. PLASTIC, EROWS GRAY DIECONDEATION, NATURAL IT. 1220MD. 79H = 1000 ppm. CLOSURE SD. SITE RALTING 10-19 ... SAMPLE INVENTORY LABCRATORY ANALYSIS: SMPL 5-17-14: TI@17' = MOIST GRAT/ BOOM CLATET SAND - SMULT OUCH. 1944 DAM TPH (6x0078) 6/27 TIEB FEED GACA 503: 1135: 2.42 10:1=2:3 x2 x10 = 4360 14360 PPM 1 TEST HOLE LOGS: TH#: TH#: TH#: SCIL SUPL DVW/ SO'L SMPL CVM/ (5025)-SH CLAY SC 5,06 1098 17. 5/17/94 1 DAUGHE TO = 17 -3 SCALE B STISM Ho col 10 ZG FEET ctoe SITE DIAGRAM 2 8 70 TK 10 - CH GAL 725 SC 6M3 2.2 1.7 (z SP18 280 TD- II SURPACE SPIDIENT



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:

Sample ID:

Project Location:

Laboratory Number:

Phillips Petroleum

T1 @ 17'

San Juan 29-6 #7A

GAC0503

Project #:

Date Analyzed:

5-17-94 5-17-94

Date Reported: Sample Matrix:

Soil

93163

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

4400

100

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg

11,000

Duplicate TPH mg kg

\*Diff.

%

\_\_\_\_\_ 12,600

14

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

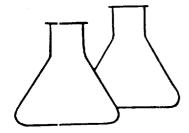
Comments: Separator Pit

-7

<sup>\*</sup>Administrative Acceptance limits set at 30%.



ENVIROTECH Inc. CLIENT: PHILLIPS PETROLEUM PIT NO: PAOO1 5796 US HWY. 64, FARMINGTON, NM 87401 (505) 632-0615 C.D.C. ND: 3867 JOB No: <u>93163</u> FIELD REPORT: CLOSURE VERIFICATION PAGE No: 1 of 1 WELL #: 7A PIT: Sep/Tank DATE STARTED: LOCATION: NAME: San Juan 29-6 DATE FINISHED: 9 Aug. 94 QUAD/UNIT: E SEC: 34 TWP: 29N RNG: 6W BM: NM CNTY: SJ ST: NM ENVIRONMENTAL SPECIALIST: FM QTR/FDDTAGE1530' FNL 895' FWL CONTRACTOR: Cimarron SOIL REMEDIATION: EXCAVATION APPROX. 20 FT. x 20 FT. x 2017 FT. DEEP. DISPOSAL FACILITY: Land Farm - On site CUBIC YARDAGE: LAND USE: Range LEASE: FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 65 \_ FEET <u>S45°E</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: 60' NEAREST WATER SOURCE:  $\geq$ 1000 NEAREST SURFACE WATER:  $\geq$ 1000 NMUCD THE CLUSURE STD: 1000 PPM SOIL AND EXCAVATION DESCRIPTION: Soil is yellow-brown, slightly moist, silty sand to clayey sand 1 dilution FIELD 418.1 CALCULATIONS WEIGHT (g) mL. FREON DILUTION READING CALC. ppm SAMPLE I.D. LAB No: 5 @ 17' GAC644 10 20 20 302 6040 1 cm = 10'SCALE FEET OVM PIT PERIMETER PIT PROFILE RESULTS SAMPLE FIELD HEADSPACE 4 (d LAB SAMPLES 5 @ 17'BTEX (8020) (pit) TRAVEL NOTES: ONSITE: CALLOUT: \_



## 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:

5@17'

Project Location:

San Juan 29-6 #7A

Laboratory Number: GAC0644

Project #:

93163

Date Analyzed: Date Reported:

8-9-94 8-9-94

Sample Matrix:

Soil

		Detection
Parameter	Result, mg/kg	Limit, mg/kg
Total Recoverable		
Petroleum Hydrocarbons	6,040	100

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg Duplicate TPH mg/kg % \*Diff.

11,000

12,600

14

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

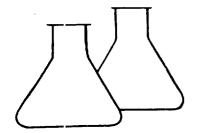
Separator/Tank Pit

PA001

Analyst

Review Young

<sup>\*</sup>Administrative Acceptance limits set at 30%.



### ENVIROTECH LABS

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

#### EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	PHILLIPS	Project #:	93163		
Sample ID:	5@17′	Date Reported:	08-16-94		
Laboratory Number:	7796	Date Sampled:	08-09-94		
Sample Matrix:	Soil	Date Received:	08-09-94		
Preservative:	Cool	Date Extracted:	08-12-94		
Condition:	Cool & Intact	Date Analyzed: Analysis Requested:	08-15-94 BTEX		

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
		10.5
Benzene	ND	19.5
Toluene	24	19.5
Ethylbenzene	74	13.0
p,m-Xylene	828	19.5
o-Xylene	205	19.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
•		
	Trifluorotoluene	90 %
	Bromofluorobenzene	85 %

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 # 7A PA001

Ref of Dalling

Review orning Horung

MAHADOI

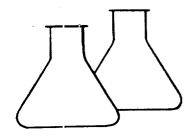
3867

Relinquished by: (Signature)	slinguished by: (Signature)  Date T  Algay / S  Revinguished by: (Signature)			5 @ 17' 8h/gy 4:05 7-196 Je1	Sample No./ Sample Sample Lab Number Matrix	Sampler: (Signature)  Chain of Custody Tape No.	Client/Project Name  Project Location  Project Location  Project Location  Project Location	CHAIN OF O
Received by: (Signature)	Time Received by: (Signature)  7/9/9/16					n. of ainers	ANALYSIS/PARAMETERS	CHAIN OF CUSTODY RECORD

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

san juan repro Form 578 A

Phillip	- Pe	fre)eum		ENVIR			87401		No: <b>Pa 00 I</b>
ਦਾ	EID	REPORT:		(505)	632-06	NGTON. NM 15 CILITY		JCB No	93163
			CLOSU	JRE V	ERIFIC	CATION			of
SCHROE LOCA	ATION: _	San Juan	29-6				0 	ATE FINISH	ED: 10/19/94
SOURCE LOCA SOURCE LOCA FAC ITY CLAS		on ogsite	landfa	rm		TYPE 5e	~	NVIRONMEN PECIALIST:	
SCL REME			TY:	57'x	33 4	ds , ,			SAMPLES:
SAM	PLING	OBSERVATIO	NS:	an 130	20-4		brown		
1			401LIT7 0	ENTEF	LOCATED	) APPRIN_	<u> 22</u> 4AD3_	NEF	ROM WELLHEAD.
NEAREST W	ATER :	CARC NAATER	NA .						
MEARE	AX TP:	H PER NMEGE F E-POINT	1000	7.0	me.		× 1 =	23,	7 mm TPH
C	OMPSI 74	TE SAMPLES	(C):	10	.143	( / < /	, –		7 ppm TPH
	<u>ā</u> (	0-200=1 )1- <del>-00=</del> 2 -1100=3	#846						
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FACI	LITY	DIAGRA!	\1 	GRID ———	304LE }	= 20	<del></del>		
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100	illheod (+)-	_ +	+	+	+	+	+ SAMPLE ANLISIS ID: RECLESTED		_
	4						CI TPA	24	CURFACE
	+		-	-	-	-			FLOW DIR.
				+	+	+	-		
	+		Ţ.		•			+	ESTIMATED GROUNDWATER FLOW DIR.



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:

Sample ID:

Project Location: Laboratory Number: Phillips Petroleum C1 – LANDFARM

SAN JUAN 29-6, #7A

GAC0846

Project #:

93163

Date Analyzed: Date Reported:

10-19-94 10-21-94

Sample Matrix:

Soil

		Detection		
F'arameter	Result, mg/kg	Limit, mg/kg		
Tota Recoverable Petroleum Hydrocarbons	24	10		

ND = Not Detectable at stated detection limits.

OA QC:

QA/QC Sample TPH mg kg

TPH mg/kg

₹Diff.

98 \*

96

Duplicate

1

\*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 PA001

Analyst

Review

#### Risk Assessment San Juan 29-6 #7A

Depth to Groundwater 60'
Distance to Water Source >1000'
Distance to Surface Water >1000'
TPH Limit (ppm) 1000

The subject pit was located in hard, well cemented sandstone below a 2 foot layer of soft sandstone. The initial size of the pit was 15'x15'x4' deep. The stained soil was excavated to a final pit size of 20' x 20' x 17' deep. Excavated soil amounted to 219 total cubic yards, and was landfarmed on location.

The excavation was assessed by Envirotech on 8/9/94. The bottom of the excavation (17 ft. below ground level) had a high TPH reading of 4360 ppm and an OVM reading of 1098 ppm.. Excavation of the walls and bottom were performed on 8/9/94. Testing of the walls and bottom showed OVM levels ranging from 175.5 ppm on the West wall to 376 ppm on the bottom. The bottom was further tested for TPH and BTEX. Results of the testing revealed a TPH level of 6040 ppm, a Non-Detect reading of Benzene concentration and a Total BTEX of 1.13 ppm. The landfarm was tested on 10/19/94 by Envirotech and was found to be within closure guidelines (TPH = 24 ppm and an OVM reading of Non-Detect). The pit was subsequently filled (2/24/97) utilizing the landfarm soil.

On February 24, 1997, Cimarron Oilfield Services, utilizing a Geoprobe, bore a hole to approximately 28 feet in depth for purposes of determining vertical extent of stained soils. At 28 feet, a hard, well cemented sandstone was encountered below a 2 foot layer of soft sandstone. A sample at 28 feet was retrieved and submitted to Envirotech Labs for TPH and BTEX analysis utilizing EPA Method 8015 and EPA Method 8020 respectfully. Results provided a Non-Detect level of Benzene, Total BTEX level of 18.10 ppm, and a TPH level of 22.4 ppm. No groundwater was encountered, and first water was not recorded on the nearby cathodic well until a depth of 60 feet. The bore hole was backfilled with well cuttings and Bentonite.

Having achieved action levels below NMOCD and BLM 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.

TPH (8015) & BTEX (8020) analysis.	Sample # 2, @ 28', was sent to Envirotech Labs for TPH (8015) & BTEX
tings	Total Depth reached is 28' due to BEDROCK.  Rore hole was backfilled with Bentonite and well cuttings
with slight hydrocarbon odor.	26' to 28' : Soil is dry, yellow brown, soft sandstone with slight hydrocarbon odor.
n odor is apparent.	0 to 26' : Soil is brown, sandy clay, wet, hydrocarbon odor is apparent.
	Comments : Pit backfilled with landfarm material
-	Closure Standard: 1000 ppm Groundwater Encountered:  No
20'	
Pit	Brown, Silty Sandy Clay  Ranking Score: 10 Bedrock Encountered :
A OPAC	Depth to Groundwater : 60' Soil Type :
	12
Sep.	
	20' x 20' x 17' 10
	ω
WELL BOKE 14/8 #1	7
	5 4 5 T
	1 
	1 @ 26 ft
-	Pit : Separator   Sample #   Location   OVM(ppm)   TPH
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Township: 29N Range: 6W
Page Hole #	Quad : "E" Section : 34
190	
GROUND	Location:San Juan 29 - 6 # 7 A

# CHAIN OF CUSTODY RECORD

ENVIROTECH INC.  5796 U.S. Highway 64-3014  Farmington, New Mexico 87401  (505) 639-0615	Relinquished by: (Signature)	Received by: (Signaturé)	Relipquished by: (Signature)  Date Time Received by: (Signature)  Path  Path					Box Hole +1/218 2/24/97 14:40 1575 Soil 1 N X	Mark MSUMM 93163	mpler: (Signature)  Chain of Custody Tape No.	Phillps TETROleur SAN JUAN 29.6 + 74, 589 71+ ANALYSIS/PARAMETERS	
			2/24/57 1548				,			Remarks		



#### EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

C ient:	Phillips Petroleum	Project #:	93163
Sample ID:	Bore Hole #1 @ 28'	Date Reported:	02-25-97
Laboratory Number:	A975	Date Sampled:	02-24-97
Chain of Custody:	5078	Date Received:	02-24-97
Sample Matrix:	Soil	Date Analyzed:	02-25-97
Preservative:	Cool	Date Extracted:	02-25-97
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
_	ND	47 5
<b>Benzene</b>	ND	17.5
Toluene	1,140	16.7
Ethylbenzene	911	15.2
p,m-Xylene	12,800	21.6
o-Xylene	3,260	10.4
Total BTEX	18,100	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	99 %
	Bromofluorobenzene	100 %

References:

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. 1994.

Comments:

San Juan 29-6 #7A, Sep. Pit.

Analyst J. Ofenen

Review / Lende



# QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



#### EPA METHOD 8020 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative:	QA/QC Laboratory Blank 02-25-BTEX.BLANK Water N/A	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed:	N/A 02-25-97 N/A N/A 02-25-97
Condition:	N/A N/A	Analysis Requested:	BTEX

F <sub>'</sub> arameter	Concentration (ug/L)	Det. Limit (ug/L)
- didiliotoi	("3")	( 3 )
Elenzene	ND	0.2
Toluene	ND	0.2
Eithylbenzene	ND	0.2
ρ,m-Xylene	ND	0.2
c-Xylene	ND	0.1

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

References:

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. 1994.

Comments: QA/QC for sample A975.

Alexand. Cyliner

May W. Sendler
Review



#### EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client: Sample ID:	QA/QC Matrix Duplicate	Project #: Date Reported:	N/A 02-25-97
Laboratory Number:	A975	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	02-25-97
Concition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Sample Result (ug/Kg)	Duplicate Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Difference
Benzene	ND	ND	17.5	0.0%
Toluene	1,140	1,140	16.7	0.0%
Ethylbenzene	911	936	15.2	2.8%
p,m-Xylene	12,800	13,400	21.6	4.5%
o-Xylene	3,260	3,340	10.4	2.6%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
G/1/GO/1/COOPTAINED CITICAL		

#### 8020 Compounds

30 %

References:

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. 1994.

Comments: QA/QC for sample A975.

Jen L. Gjenen Ana yst May W. Sende

Review



#### **EPA METHOD 8020** AROMATIC VOLATILE ORGANICS

Client: Sample ID:	QA/QC Matrix Spike	Project #: Date Reported:	N/A 02-25-97 N/A
Laboratory Number:	A975	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	
Preservative:	Cool	Date Extracted:	02-25-97
Condition:	Cool and Intact	Date Analyzed:	02-25-97

Parameter	Sample Result (ug/Kg)	Spike Added (ug/Kg)	Spiked Sample Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	ND	50.0	49.5	17.5	99%	39-150
Taluene	1,140	50.0	1,190	16.7	100%	46-148
Ethylbenzene	911	50.0	960	15.2	100%	32-160
p,ın-Xylene	12,800	100	12,900	21.6	100%	46-148
o-Kylene	3,260	50.0	3,310	10.4	100%	46-148

NC - Parameter not detected at the stated detection limit.

References:

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. 1994.

**Comments:** 

QA/QC for sample A975.



#### EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Phillips Petroleum	Project #:	93163
Sample ID:	Bore Hole #1 @ 28'	Date Reported:	02-25-97
Laboratory Number:	A975	Date Sampled:	02-24-97
Chain of Custody No:	5078	Date Received:	02-24-97
Sample Matrix:	Soil	Date Extracted:	02-25-97
Preservative:	Cool	Date Analyzed:	02-25-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	19.0	0.2
Diesel Range (C10 - C28)	3.4	0.1
Total Petroleum Hydrocarbons	22.4	0.2

ND - Parameter not detected at the stated detection limit.

References:

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Comments:

San Juan 29-6 #7A, Sep. Pit.

Analyst

Jacy W. Sender Review



# QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



#### EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

#### **Quality Assurance Report**

Client: Sample ID:	QA/QC Laboratory Blank	Project #: Date Reported:	N/A 02-25-97
Laboratory Number:	02-25-TPH.BLANK	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-25-97
Condition:	N/A	Analysis Requested:	TPH

F'arameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

Fleferences:

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Comments:

QA/QC for samples A975 - A976.

Leur L. Gencer

Review



## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons Quality Assurance Report

Clier t: Sample ID:	QA/QC Matrix Duplicate	Project #: Date Reported: Date Sampled:	N/A 02-25-97 N/A
Labcratory Number: Sample Matrix:	A975 Soil	Date Received:	N/A
Preservative: Condition:	Cool Cool and Intact	Date Analyzed: Analysis Requested:	02-25-97 TPH

Parameter	Sample Result (mg/Kg)	Duplicate Result (mg/Kg)	Percent Difference	
Gasoline Range (C5 - C10)	19.0	19.5	2.2%	
Diesel Range (C:10 - C28)	3.4	3.3	4.7%	
Total Petroleum F∣ydrocarbons	22.4	22.8	1.1%	

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Max Difference
	Petroleum Hydrocarbons	30%

References:

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Cornments:

QA/QC for samples A975 - A976.

Alem & Cylercan Analyst Stay W. Sender
Review



## EPA METHOD 8015 Modified Nonhalogenated Volatile Hydrocarbons Total Petroleum Hydrocarbons Quality Assurance Report

Clier t:

QA/QC

Project #:

N/A

Sample ID:

Matrix Spike

Date Reported:

02-25-97

Labc ratory Number:

A975

N/A

Sample Matrix:

Soil

Date Sampled:
Date Received:

N/A

Analysis Requested:

TPH

Date Analyzed:

02-25-97

Condition:

N/A

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spiked Sample Result (mg/kg)	Det. Limit (mg/kg)	Percent Recovery
Gasoline Range (C5 - C10)	19.0	250	267	0.2	99%
Diesel Range (C10 - C28)	3.4	250	251	0.1	99%
Total Petroleum Hydrocarbons	22.4	500	518	0.2	99%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:

Parameter

Acceptance Range

**Petroleum Hydrocarbons** 

75 - 125%

References:

Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, July 1992.

Cornments:

QA/QC for samples A975 - A976.

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