District I
PO Box 1980, Hobbs, NM
District II
PO Drawer DD, Ariena, NM 88211
District III
100 Brizos Rd, Azec, NM 87410

State of New Mexico

West becomergy, Minerals and Natural Resources Department

East Abd pt - VEN Denack
West bedook SUBMIT 1 COPY TO

APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO

SANTA FE OFFICE

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

PIT REMEDIATION AND CLOSURE REPORT of Mroved 12/8/96

Amoco Production Company Telephone: (505) - 326-9200 Operator: Address: 200 Amoco Court, Farmington, New Mexico 87401 Pacility Or: Johnson Gas Com "D" No. 1 Well Name Location: Unit or Qtr/Qtr Sec SW/4 NE/4 Sec 15 T 30N R 12W County San Juan Pit Type: Separator Dehydrator Other EAST Abandoned P. t Land Type: BLM___, State ___, Fee X_, Other__ Pit Location: Pit dimensions: length 20', width 15', depth 6' tach diagram) Reference: wellhead X, other Footage from reference: _ 235 Direction from reference: 30 Degrees ___ East North X West South (20 points) Depth To Ground Water: Less than 50 feet (Vertical distance from 50 feet to 99 feet (10 points) 20 Greater than 100 feet (0 Points) contaminants to seasonal high water elevation of ground water) Wellhead Protection Area: Yes (20 points) (0 points) (Less than 200 feet from a private No domestic water source, or; less than 1000 feet from all other water sources) Less than 200 feet (20 points) Distance To Surface Water: 200 feet to 1000 feet (10 points) rizontal distance to perennial lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) irrigation canals and ditches) RANKING SCORE (TOTAL POINTS):

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6 mark			

Date Remediation St	arted: $6/23/94$ Date Completed: $6/23/94$	123/94
Remediation Method:	Excavation X Approx. cubic yards	67
(Check all appropriate sections)	Landfarmed X Insitu Bioremediation	•
	Other	
		·
Remediation Locatio (ie. landfarmed onsite,		
name and location of offsite facility)		•
General Description	Of Remedial Action:	•
Excavati	on and Landfarm Remediation at APC Crouch Mesa F	acility
BEORS	CIR BOTTOM LISK ASSESSED. 915	
	• :	· .
		
Ground Water Encoun	tered: No Yes Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample locationsee Attached Documents	
Closure Sampling: (if multiple samples, attach sample results and diagram of sample		
Closure Sampling: (if multiple samples, attach sample results	Sample location see Attached Documents Sample depth $4'-b'$, lenter bottom and Sidewall Sample date $6/23/99$ Sample time $1'$	920 4 1940
Closure Sampling: (if multiple samples, attach sample results and diagram of sample	Sample depth $4'-6'$, lenter bottom and Sidewall Sample date $6/23/94$ Sample time $1'$ Sample Results	
Closure Sampling: (if multiple samples, attach sample results and diagram of sample	Sample depth 4'-6', lenter bottom and Sidewall Sample date 6/23/44 Sample time 1'	Mark Wall of Y'
Closure Sampling: (if multiple samples, attach sample results and diagram of sample	Sample depth 4'-6', lenter bottom and Sidewall Sample date 6/23/94 Sample time / Sample Results Benzene(ppm) CBe6' NO Total BTEX(ppm) 78990	Note Well of 1' NO 28,140
Closure Sampling: (if multiple samples, attach sample results and diagram of sample	Sample depth 4'-6', lenter bottom and Sidewall Sample date 6/23/94 Sample time / Sample Results Benzene(ppm) CBe6' NO Total BTEX(ppm) 78990	Mark Wall of Y'
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Closure Sampling: (if multiple samples, attach sample results and diagram of sample	Sample depth 4'-6', lenter bottom and Sidewall Sample date 6/23/49 Sample time / Sample Results Benzene(ppm) CBOC' NO Total BTEX(ppm) 78090 Field headspace(ppm) 536 TPH 108'	Mrk Well of 1 NO 28,140 832 211
Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths) Ground Water Sample	Sample depth 4'-6', lenter bottom and Sidewall Sample date 6/23/44 Sample time / Sample Results Benzene(ppm) CBe6' ND Total BTEX(ppm) 78990 Field headspace(ppm) 536 TPH 108 SEE Yes 1 (If yes, attach sample results the Information Above Is True And Complete	Mrk Wall o 4' NO 28,140 832 211 esults)
Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths) Ground Water Sample I HEREBY CERTIFY TH	Sample depth 4'-6', lenter bottom and Sidewall Sample date 6/23/99 Sample time / Sample Results Benzene(ppm) CBe6' ND Total BTEX(ppm) 78,090 Field headspace(ppm) 536 TPH 108 SET YES 108 AT THE INFORMATION ABOVE IS TRUE AND COMPLETE DELIEF	Mrk Wall o 4' NO 28,140 832 211 esults)

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	DATA DOMESTIA	C 47/7-3
CLIENT: HMOCO	ENVIROTECH Inc.	PIT NO: (T)
	5796 US HWY. 64, FARMINGTON, NM 87401 (505) 632-0615	C.O.C. NO: 3776
FIELD REPOR'	T: CLOSURE VERIFICATION	JOB No: 92/40 PAGE No: 1 of 1
	TWP: 30N RNG: 12W BM: NMPM CNTY: SJ ST: NM	DATE STARTED: 6/23/94 DATE FINISHED: 6/23/94
QTR/FOOTAGE:	CONTRACTOR: Envirotech	ENVIRONMENTAL SPECIALIST: Kmy/cP
	VATION APPROX. 20 FT. x 15 FT. x SILITY: ARC Crouch Mosa Facility CUBIC YAR	
i	Ral Residential LEASE:	
	S: PIT LOCATED APPROXIMATELY 235 FEET N	
	NEAREST WATER SOURCE: <u>UNKNOWN</u> NEAREST SURFAC	E WATER:
		'a 11 a de 120
SOIL AND EXCAVATION DES	ting Contample to	Pualls Moist on Dattorn
	3" of Pit. excavation completed in bedrock	
	G.Z.i.e	-W
BEDROCK	EIGLD 4101 CALCULATIONS	(BSIR)
BOTTOM SAMPLE I.D.	FIELD 418.1 CALCULATIONS LAB No: WEIGHT (g) mL. FREON DILUTION READING CAL	C. ppm ASSESSED
SCALE	1 suspected Kw Flow direction	٠.
o FEET PIT PERIME'	MVO	PROFILE
PIT PERIME"	TITLE TO THE TOTAL	TROFILE
	10 PID (ppm) 104/ 832	
<u> </u>	3 04' 564	. PitProhite
20'	4 0 1 515	
	- Poorly (1)	thified footly Graded, -
- 15'00 0/15'	gellowish	brown, dry to Moist.
-		d lenses Present.
[- 15 ·	LAB SAMPLES	
F	1 mul 041 BTOX/418,1	
 		
TRAVEL NOTES:	623/44 ONSITE: 6/23/74	
CALLOUT:	0/23/19 ONSITE: 0/23/19	

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Well Name:

Well Site location: Pit Type:

Producing Formation: Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Johnson GC D #1
Unit G, Sec. 15, T30N, R12W
East Abandoned Pit
Basin Dakota
Vulnerable
< 1000 ft.
< 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered competent sandstone at 6 feet below grade.

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

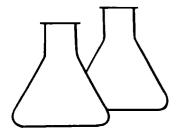
- 1. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shallow sandstone bedrock.
- 2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
- 3. Daily discharge into the earthen pit has been terminated (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 impermeable 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 therefore request pit closure approval on this location.

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	North Wall @ 4'	Date Sampled:	06-23-94
Laboratory Number:	7662	Date Received:	06-23-94
Sample Matrix:	Soil	Date Analyzed:	06-26-94
Preservative:	Cool	Date Reported:	06-30-94
Condition:	Cool and Intact	Analysis Needed:	TPH

	Concentration	Det. Limit
Parameter	(mg/kg)	(mg/kg)
Total Petroleum		
Hydrocarbons	211	30.0

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

Method: Method 418.1, Petroleum Hydrocarbons, Total

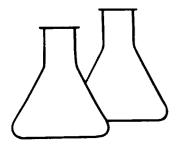
Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978

Comments: Johnson GC D-1 East Abandoned Pit C4141-3

Molest Moung Analyst

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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	Amoco North Wall @ 4' 7662 Soil Cool Cool & Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed:	92140 07-01-94 06-23-94 06-23-94 06-26-94
Condition:	Cool & Intact	Date Analyzed: Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	13.4
Toluene	2730	13.4
Ethylbenzene	960	13.4
p,m-Xylene	19500	434.2
o-Xylene	4950	13

SURROGATE RECOVERIES: Parameter

Percent Recovery

Bromofluorobenzene

104 %

Method:

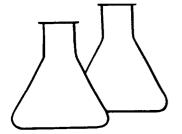
Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

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: Johnson GC D-1 East Abandoned Pit C4141-3

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #: Date Sampled: Date Received: Date Analyzed:	92140
Sample ID:	CB @ 6'		06-23-94
Laboratory Number:	7661		06-23-94
Sample Matrix:	Soil		06-26-94
Preservative: Condition:	Cool Cool and Intact	Date Reported: Analysis Needed:	06-30-94

	Concentration	Det. Limit
Parameter	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	108	30.0

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

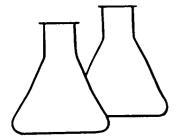
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and

Waste, USEPA Storet No.4551, 1978

Comments: Johnson GC D-1 East Abandoned Pit C4141-3

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	Amoco Project #: CB @ 6' Date Reported: 7661 Date Sampled: Soil Date Received: Cool Date Extracted: Cool & Intact Date Analyzed: Analysis Requested	92140 07-01-94 06-23-94 06-23-94 06-26-94 06-28-94 1: BTEX
Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	13.4
Toluene	8500	13.4
Ethylbenzene	3390	13.4
p,m-Xylene	51700	435.1
o-Xylene	14500	13

SURROGATE RECOVERIES:

Parameter

Percent Recovery

Bromofluorobenzene

104 %

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: Johnson GC D-1 East Abandoned Pit C4141-3

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62		Project Location	CO N-1 Of	A1273,	ANALYSIS/PARAMETERS		
06/		Chain of Custody Tape No.	2			Remarks	
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Sample Date	Sample Time	Lab Number	Sample Matrix	127 1427 1400 1400			
6/23/64	1920	1796	SOR	7			
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Relinquished by: (Signature)			Recei	Received by: (Signature)			
			ENGROTECH INC	J.V.		- ·	Ç.
			5796 U.S. Highway 64-3014 Farmington, New Mexico 87401	64-3014 kico 87401	•		•
			(505) 632-0615	2		en/ ues	san juan rapro Form 578-81

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

State of New Mexico Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

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

PIT REMEDIATION AND CLOSURE REPORT

Amoco Production Company Amoco Production Company Address: 200 Amoco Court, Farmington, New Mexico 87401 Pacility Or: TOHNSON GAS Com, 'D' at Well Name Location: Unit or Qtr/Qtr Sec		A. D. J. J. J. Company	Telephone: (505) - 326-9200				
Pacility Or:	-						
Name Location: Unit or Qtr/Qtr Sec							
Pit Type: Separator Dehydrator Other ASMACANS	Pacility Or:	JOHNSON GAS COI	n 'D' #1				
Pit Location: Pit dimensions: length 20 , width 18 , depth 7 Reference: wellhead Y , other Footage from reference: 235 Direction from reference: 35 Degrees East North X of X west South Depth To Ground Water: Less than 50 feet (20 points) (Vertical distance from contaminants to seasonal high water elevation of ground water) Wellhead Protection Area: (Less than 100 feet (0 Points) 20 domestic water source, or; less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)							
Pit Location: Pit dimensions: length 20 , width 18 , depth 7 Reference: wellhead \(\frac{Y}{2} \), other Footage from reference: 235 Direction from reference: 35 Degrees East North \(\frac{X}{2} \) West South Depth To Ground Water: (Vertical distance from 50 feet (20 points) contaminants to seasonal high water elevation of ground water) Wellhead Protection Area: Yes (20 points) (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources) Distance To Surface Water: Less than 200 feet (20 points) (Horizontal distance to perennial 1000 feet (10 points) 200 feet to 1000 feet (10 points) (I contaminants to seasonal 1000 feet (10 points) 200 feet to 1000 feet (10 points) (I contaminants to seasonal 1000 feet (10 points) 10 feet (10 points) (I contaminants to seasonal 1000 feet (10 points) 10 feet (10 points) (I contaminants to seasonal 1000 feet (10 points) 10 feet (10 points) 10 feet (10 points) (I contaminants to seasonal 1000 feet (10 points) 10 feet (10							
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Reference: wellhead \(\frac{V}{V} \), other Footage from reference: \(\frac{235}{35} \) Direction from reference: \(\frac{35}{35} \) Depth To Ground Water: (Vertical distance from tootaminants to seasonal high water elevation of ground water) Wellhead Protection Area: (Less than 50 feet (20 points) to feet (10 points) (Pit Location:	Pit dimensions: lengt	th 20, width 18, depth 7				
Direction from reference: 35 Degrees East North X of X West South							
Direction from reference: 35 Degrees East North X of X West South	Footage from reference:		23 <u>5</u>				
Depth To Ground Water: (Vertical distance from 50 feet (20 points) contaminants to seasonal high water elevation of ground water) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Less than 50 feet (20 points) For eater than 100 feet (0 points) Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)		-					
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(Vertical distance from contaminants to seasonal high water elevation of ground water) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points) Yes (20 points) No (0 points) 20 Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)							
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high water elevation of ground water) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources) Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) Yes (20 points) No (0 points) 20 Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	(Vertical distance		50 feet to 99 feet (10 points)				
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(Horizontal distance to perennial 200 feet to 1000 feet (10 points) lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	domestic water so	ource, or; less than	NO (U points) 20				
lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) <u>lo</u> irrigation canals and ditches)							
	lakes, ponds, riv	vers, streams, creeks,					
	-		RANKING SCORE (TOTAL POINTS): 50				

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E. WAL @7: TPH= 14,100, B= 37.6, BTEX= 180.9 ENVIROTECH Inc. PIT NO: ADD72 CLIENT: Amoco C.O.C. NO: 3775 5796 US HWY. 64, FARMINGTON, NM 87401 (505) 632-0615 JOB No: <u>92140</u> CLOSURE VERIFICATION FIELD REPORT: PAGE No: ________ of ________ PIT: West Abandoned P.F Johnson Gas CON "D" WELL #: No DATE STARTED: 6/23/94 LOCATION: NAME: DATE FINISHED: 6/23/94 RNG: 12 W BM: NUPM CNTY: ST STNM TWP: 30N QUAD/UNIT: SWY NEWSEC: 15 ENVIRONMENTAL Pmy CONTRACTOR: ENVIROTECH QTR/FOOTAGE SOIL REMEDIATION: EXCAVATION APPROX. _18'_ FT. x _20 FT. x DISPOSAL FACILITY: APC Crouch Mesa Facility CUBIC YARDAGE: _ LAND USE: RURAL Residential _ LEASE: _ FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 235 FEET N35°W FROM WELLHEAD. DEPTH TO GROUNDWATER: 20-30' NEAREST WATER SOURCE: UNKNOWN NEAREST SURFACE WATER: 700'-800' _ NMOCD TPH CLOSURE STD: 100 PPM NMOCD RANKING SCORE: ____ SOIL AND EXCAVATION DESCRIPTION: Sidewalls from 3'to 7' are leaching either Free production water at a slow enough to Keep sidewalls looking moist. FIELD 418.1 CALCULATIONS WEIGHT (g) mL. FREON DILUTION READING CALC. ppm SAMPLE I.D. LAB No: SCALE Suspected Groundwater Flow Surface FEET OVM PIT PROFILE RESULTS FIELD HEADSPACE PID (ppm) Uniform Prifite. 693 -Poorly lithified Poorly Graded 198 Sandstone. Pele to Moderate Yelkowsh brown, wet to satid, Mild Hydrocarbon odor. Thin Sand lenses Present. LAB SAMPLES

ONSITE:

TRAVEL NOTES:

CALLOUT:

Well Name:

Well Site location: Pit Type: Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Johnson GC D #1

Unit G. Sec. 15, T30N, R12W
West Abandoned Pit
Basin Dakota
Vulnerable
< 1000 ft.

< 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered competent sandstone at 7 feet below grade.

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

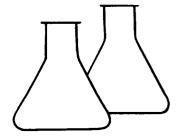
- 1. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shallow sandstone bedrock.
- 2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
- 3. Daily discharge into the earthen pit has been terminated (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 impermeable 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 therefore request pit closure approval on this location.

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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

Client:	Amoco	Project #:	92140
Sample ID:	CB @ 7'	Date Sampled:	06-23-94
Laboratory Number:	7666	Date Received:	06-23-94
Sample Matrix:	Soil	Date Analyzed:	06-26-94
Preservative:	Cool	Date Reported:	06-30-94
Condition:	Cool and Intact	Analysis Needed:	TPH

	Concentration	Det. Limit
Parameter	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	287	30.0

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

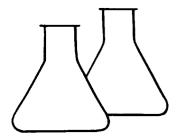
Waste, USEPA Storet No.4551, 1978

Comments: Johnson GC D-1 West Abandoned Pit C4141-2

Analyst

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	CB @ 7'	Date Reported:	07-05-94
Laboratory Number:	7666	Date Sampled:	06-23-94
Sample Matrix:	Soil	Date Received:	06-23-94
Preservative:	Cool	Date Extracted:	06-26-94
Condition:	Cool & Intact	Date Analyzed:	06-30-94
		Analysis Requested:	BTEX

Domonofica	Concentration	Det. Limit
Parameter	(ug/Kg)	(ug/Kg)
Benzene	63	26.8
Toluene	276	20.1
Ethylbenzene	68	13.4
p,m-Xylene	690	20.1
o-Xylene	281	13.4

SURROGATE RECOVERIES: Parameter Percent Recovery

Bromofluorobenzene

103 %

Method:

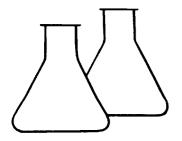
Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

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: Johnson Gas Com "D" #1 West Abandoned Pit C4141-2

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	E. Wall @ 7'	Date Sampled:	06-23-94
Laboratory Number:	7665	Date Received:	06-23-94
Sample Matrix:	Soil	Date Analyzed:	06-26-94
Preservative:	Cool	Date Reported:	06-30-94
Condition:	Cool and Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)	
Total Petroleum Hydrocarbons	14100	30.0	

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

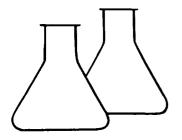
Waste, USEPA Storet No.4551, 1978

Comments: Johnson GC D-1 West Abandoned Pit C4141-2

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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	E. WALL @ 7'	Date Reported:	07-05-94
Laboratory Number:	7665	Date Sampled:	06-23-94
Sample Matrix:	Soil	Date Received:	06-23-94
Preservative:	Cool	Date Extracted:	06-26-94
Condition:	Cool & Intact	Date Analyzed:	06-30-94
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	37600	26.8
Toluene	52100	20.1
Ethylbenzene	10800	13.4
p,m-Xylene	50000	20.1
o-Xylene	30400	13.4

SURROGATE RECOVERIES: Parameter Percent Recovery

Bromofluorobenzene

142 %

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:

Johnson Gas Com "D" #1 West Abandoned Pit C4141-1 Excessive surrogate recovery due to coelution.

Analyst

Review

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			Remarks						-			Date Time	4/2/64 2000	`		san juan repro Form 578-81
		ANALYSIS/PAHAME I EHS				-							-			
DY RECORD	2-1417	H0075		snenier 50.	Conu	7	7					Received by: (Signature)	Colaston year	Received by: (Signature)	Received by: (Signature)	I INC. 64-3014 xico 87401 15
CHAIN OF CUSTODY RECORD	west,	D-1 majordored	.07		Sample Mafrix	Sor	SOR					Time	42/51 2010 K	Яесе	Весе	ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615
Ö	Project Location	Johnson 6C	Chain of Custody Tape No.		Lab Number	7665	7771						9			
;					Sample Time	7071	1900									
		92140			Sample Date	1/23/44	6/23/94	•					,			
	Client/Project Name	Amore 9	Sampler: (Signature)	toleston Gen	Sample No./ Identification	E. Wall @71	CB @ 7'					Relinquished by: (Signature)	foly my yours	Relinquished by (Signature)	Relinquished by: (Signature)	

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