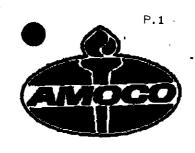
REMEDIATION PLAN

AMOCO PIPELINE COMPANY WEST TEXAS BUSINESS DISTRICT

502 N. West Avenue Levelland, Texas 79336 FAX No. (806) 897-7045



FACSIMILE COVER SHEET

DATE:	7-24-95
PLEASE DELIVE	R TO:
COMPANY:	N.M. OCD.
NAME:	Bill Olson
PHONE No:	
FAX No:	505-827-8177
FROM: NAME: PHONE No:	Jim Lutter 806-897-7017
Number of Pages (including cover sheet):
Additional Comme	nts:
	· · · · · · · · · · · · · · · · · · ·
<i>:</i>	

Bill,

Corrected Form C-103 as we discussed.

Please fax back the approval to 1-806-897-7045

Thanks for your help!

Jim

P. 3 Form C-103 Revised 1-1-89

Submit 3 Copies to Appropriate District Office

JUL 24 '95 10:46AM APL LEVELLAND TX

State of New Mexico Energy, Minerals and Natural Resources Departmen

DISTRICT I P.O. Rox 1980, Hobbs, NM 88240	310 Old Santa	VATION DIVISION Fe Trail, Room 206	WELL API NO.
DISTRICT II P.O.Drawer DD, Artesia, NM \$8210 DISTRICT III	·	ew Mexico 87503	5. Indicate Type of Lease State NA Fee 6. State Qil & Ges Lease No.
1000 Rie Brazos Rd., Aztec, NM 87410			NA NA
	NOTICES AND REPORTS (R PROPOSALS TO DRILL OR TO		7. Lease Name or Unit
DIFFERENT F	RESERVOIR. USE "APPLICATION DRM C-101) FOR SUCH PROPOS	FOR PERMIT	Agreement Name
1. Type of Well: Oil Well Gas Well	Other	PIPELINE	Denton Facilities
2. Name of Operator			8. Well No.
3. Address of Operator	Amoco Pipeline Company		9. Pool name of Wildcat
	302 E. Avenue_A,	Lovington, N.M.	NA NA
4. Well Location Unit Letter :	Feet From The	Line and	Feet From TheLine
Section SW 1/4 of NW 1/4	Sec.25 _{Township} 14\$	Range 37E	NMPM LEA County
	10 Elevation (Bhaw whether DF, RKB, RT, GR,	etc.)
•	ppropriate Box to Indicate		
NOTICE OF INTE	INTION TO:	SUBSEQ	UENT REPORT OF:
Perform Remedial Work	lug and Abandon	Remedial Work	Altering Casing
Temporarily Abandon C	change Plans	Commence Drilling Opns.	Plug & Abandonment
Pull or Alter Casing		Casing Test and Cament Job	
OTHER: REMEDIATE SOIL AT P	PIPELINE SPILL SITE X	OTHER:	
12. Describe Proposed or Completed Op proposed work) SEE RULE 1	• •	nt details, and give pertinent dates	, including eatimated date of starting any
	, SEE ATTACHED F	REMEDIÁTION PLAN	
	oue Al Molles I		
· .			
FAX to: Bill Olson (505) 827-8177	,		
	ŧ		
I hereby certify that the information above	7]s tique and complete to the best o	f my knowledge and belief.	
SIGNATURE LAmes L	Dutter m	E Environmental Coo	rdinator DATE 07/24/95
TYPE OR PRINT NAME James D.	Lutter	TELEPHONE N	O. (806) 897-7017
(This spare for State Lise) APPROVED BY		E Geologist IV	
Final remediation	raport will	be sent to	OCD
upon conf	iletion.		



Amoco Pipeline Company

West Texas Business District 502 N. West Avenue Levelland, Texas 79336-3914 806-897-7000

June 21, 1995

Mr. William C. Olson State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 2040 S. Pacheco Santa Fe, NM 87505

RECEIVED

JUN 2 3 1995

Environmental Bureau
Oil Conservation Division

Re: Spill site Remediation Proposal

Dear Mr. Olson:

Enclosed with this letter is a form C-103 and associated documents proposing remediation plans for the designated facility.

Please review and respond with your approval.

Should you require further information, please call me at (806) 897-7017.

Sincerely,

James D. Lutter EH&S Coordinator,

Levelland, TX

Project:

Denton Facilities Soil Remediation

Proposed Start Date: 7/1/95

Proposed Completion Date: 8/1/95

Proposed Remediation Method:

InSitu treatment using soil aeration and natural and enhanced bioremediation.

Proposed Remediation Procedure:

Contaminated soil will be excavated to determine exact extent of contamination and to ensure minimal pollutant migration.

Fresh surrounding soil will be added to the excavated soil, mixed and placed back into the excavation area. TPH levels will be checked during this process to ensure final levels for this area are within NMOCD guidelines (<5000 PPM TPH).

The process of excavation and mixing will provide soil aeration, increase the surface area of the waste to bacteria action, and eliminate "hot spots".

Remediated area will be replanted or otherwise prepared per specifications determined through landowner negotiations.

Final TPH analysis will be provided to NMOCD.

NEW MEXICO CRUDE OIL LEAK SITE CLOSURE WORK SHEET

8-3-94

Aboutin Gathering LEAK/SPILL DATE

SITE/LOCATION

(Score: < 200' = 20 pts. ~ > 200' = 0 pts.) (Score: $< 50' = 20 \text{ pts} \sim 50' \text{ to } 99' = 10 \text{ pts} \sim >100' = 0 \text{ pts}$) (Score: < 200' = 20 pts. ~ 200' to 1000' = 10 pts ~ > 1000' = 0 pts.) HORIZONTAL DISTANCE TO PRIVATE WATER WELL >200 FEET DISTANCE TO SURFACE WATER 2000 FEET DEPTH TO GROUND WATER 7, 60 FEET TOTAL SCORE = Ø SCORE SCORE SCORE Benzene If Score= Less than 19 втех These are the maximum levels allowed after SITE FINAL CLEANUP LEVELS TPH site has been remediated 8 8 10 to 19 8 ଷ୍ଠ 5 0 to 9

SPILL SITE MANAGEMENT OPTIONS DEFINE LATERAL AND VERTICAL CONTAMINATION on plastic 100 yds LENGTH WIDTH DEPTH

SCORE

Soil Remediation Options:

(1) Risk Assesment

(2) OCD Approved Spill Containment Plan.

- (1) Excavation and removal (Sample to determine if all removed)
- (2) Excavation to maximum practical depth (Sample to determine level of non removable soil)
- (3) Treat on place (Sample while treating until required level reached)
- (4) Manage with an alternate method (requires OCD notification and approval)

Soff Management Options:

- Disposal at an OCD permitted or approved facility.
- (2) Land Farming
- (3) InSitu Treatment (Venting, Bioremediation, other approved system)
- (4) Active Soil aenation, Composting, Bioremediation, Solidification, thermal treatment, etc.

Ground Water Remediation Options:

All Water treatment plans must be approved by OCD prior to starting treatment

- (1) Skimmer or total fluid pumping
- (3) Treating in place

(2) Removal and Disposal

(4) Air Sparging, bio remediation

NEW MEXICO CRUDE OIL LEAK SITE CLOSURE WORK SHEET

Dentan Hackorers LEAK/SPILL DATE

SITE/LOCATION

Ø sc	SITE FINAL CLEANUP LEVELS If Score= Less than 19 10 to 19 0 to 9
HORIZONTAL DISTANCE TO PRIVATE WATER WELL >200 FEET SCORE (Score: < 200' = 20 pts. ~ > 200' = 0 pts.)	8 8
DISTANCE TO SURFACE WATER >6 PEET SCORE (Score: < 200' = 20 pts. ~ 200' to 1000' = 10 pts ~ > 1000' = 0 pts.)	1000
TOTAL SCORE =	These are the maximum levels allowed after site has been remediated
DEFINE LATERAL AND VERTICAL CONTAMINATION 300 LENGTH 30 WIDTH	DEPTH SCORE

SPILL SHE MANAGEMENT OF HONS:

- (1) Risk Assesment(2) OCD Approved Spill Containment Plan.

Soil Remediation Options:

- (1) Excavation and removal (Sample to determine if all removed)
- (2) Excavation to maximum practical depth (Sample to determine level of non removable soil)
- (3) Treat on place (Sample white treating until required level reached)
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- (3) Treating in place

(2) Removal and Disposal

(4) Air Sparging, bio remediation

NEW MEXICO CRUDE OIL LEAK SITE CLOSURE WORK SHEET

SITE/LOCATION & Control le

LEAK/SPILL DATE 5-30-95

DEDTH TO GROUND WATER TO RECET OF SCORE	SITE FINAL CLEANUP LEVELS	ANUP LEVELS	
Γ-	If Score= Less than 19	10 to 19 0 to 9	Ш_
HORIZONTAL DISTANCE TO PRIVATE WATER WELL > 20 FEET SCORE	Benzene 10	10	ŏ
< 200' = 20 pts. ~ > 200' = 0 pts.)	BTEX 50	50	8
	TPH 100	1000 / 50	8
DISTANCE TO SURFACE WATER > 1000 FEET \mathcal{L} SCORE < 200' = 20 pts \sim 200' to 1000' = 10 pts \sim > 1000' = 0 pts)	▼	× ×	+
TOTAL SCORE = Ø			
	These are the maximum levels allowed after	m levels allowed after	_
	site has been remediated	remediated	

(Score:

(Score:

(Score:

SPILL SITE MANAGEMENT OPTIONS: DEFINE LATERAL AND VERTICAL CONTAMINATION (2) OCD Approved Spill Containment Plan. (1) Risk Assesment LENGTH WIDTH 65 you DEPTH

Soil Remediation Options:

- (1) Excavation and removal (Sample to determine if all removed)
- (2) Excavation to maximum practical depth (Sample to determine level of non removable soil)
- (3) Freat on place (Sample while treating until required level reached)
- (4) Wanage with an alternate method (requires OCD notification and approval)

Management Options:

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- (3) InSitu Treatment (Venting, Bioremediation, other approved system)
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- (3) Treating in place

(2) Removal and Disposal

(4) Air Sparging, bio remediation

P03







LUBBOCK CHRISTIAN UNIVERSITY INSTITUTE OF WATER RESEARCH

5601 19th Street • Lubbock, TX 79407 • P.O. Drawer 16051 • Lubbock, TX 79490-6051 (806) 796-8900 • 1-800-678-8901 • Fax (806) 796-8902

> ANALYTICAL RESULTS FOR AMOCO PIPELINE CO. ATTN: JIM LUTTER 502 N. W. AVE. LEVELLAND, TX 79336

FAX TO: 1-897-7045

Receiving Date: 09/27/94 Reporting Date: 10/03/94

Project Number: DENTON # 1, EMPIRE # 2

Project Name: NONE GIVEN

Project Location: DENTON & EMPIRE - NM

Sampling Date: 09/27/94

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: RKT

Analyzed By: SL

LAB NUMBER SAMPLE ID	BENZENE (ppb)	TOLUENE (ppb)	ETHYLBENZENE (ppb)	TOTAL XYLENES (ppb)
ANALYSIS DATE	09/27/94	09/27/94	09/27/94	09/27/94
L3165-1 JDL092794-1	7.0	17.6	25.9	97.3
L3165-2 JDL092794-2	5.3	14.2	20.3	73.3
Quality Control	87.8	79.7	73.5	239.5
True Value QC	86.8	85.3	85.0	250.1
% Accuracy	101	94	86	96
Relative Percent Difference	0	2	6	7

METHOD: EPA SW 846-8020, 5030, Gas Chromatography

Jane Huang, Chemist



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ANALYTICAL RESULTS FOR AMOCO PIPELINE CO. ATTN: JIM LUTTER 502 N. W. AVE. LEVELLAND, TX 79336 FAX TO: 1-897-7045

Receiving Date: 09/27/94 Reporting Date: 10/03/94

Project Number: DENTON #1, EMPIRE #2

Project Name: NONE GIVEN

Project Location: DENTON & EMPIRE - NM

Sample ID: JDL092794-1 Lab Number: L3165-1 Analysis Date: 09/30/94 Sampling Date: 09/27/94 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: RKT

Analyzed By: SL

	EPA	Detection	Sample Result	Method			True Value
TCLP VOLATILES (ppm)	LIMIT	Limit	L3165-1	Blank	QC	%IA	QC
Vinyl chloride	0.20	0.001	<0.001	<0.001	49	98	50
1,1-Dichloroethylene	0.70	0.001	<0.001	<0.001	51	102	50
Methyl ethyl ketone	200.00	0.001	<0.001	<0.001	48	96	50
Chloroform	6.00	0.001	<0.001	<0.001	91	182	50
1,2-Dichloroethane	0.50	0.001	<0.001	<0.001	44	88	50
Benzene	0.50	0.001	<0.001	<0.001	50	100	50_
Carbon tetrachloride	0.50	0.001	<0.001	<0.001	51	102	50
Trichloroethylene	0.50	0.001	<0.001	<0.001	51	102	50
Tetrachioroethylene	0.70	0.001	<0.001	<0.001	50	100	50
Chlorobenzene	100.00	0.001	<0.001	<0.001	49	98	50
1,4-Dichlorobenzene	7.50	0.001	<0.001	<0,001	49	98	50

	% RECOVERY	RELATIVE PERCENT DIFFERENCE
Dibromofluoromethane	90	8
Toluene - d8	96	1
Bromofluorobenzene	92	6

METHODS: EPA SW-848-8260, 1311.

Jane Huang, Chemist

(D -3-94)

Date

002



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ANALYTICAL RESULTS FOR AMOCO PIPELINE CO. ATTN: JIM LUTTER 502 N. W. AVE. LEVELLAND, TX 79336 FAX TO: 1-897-7045

Receiving Date: 09/27/94 Reporting Date: 10/03/94

Project Number: DENTON #1, EMPIRE #2

Project Name: NONE GIVEN

Project Location: DENTON & EMPIRE - NM

Sample ID: JDL092794-2 Lab Number: L3165-2 Analysis Date: 09/30/94 Sampling Date: 09/27/94 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: RKT

Analyzed By: SL

	EPA	Detection	Sample Result	Method		-	rue Value
TCLP VOLATILES (ppm)	LIMIT	Limit	L3165-2	Blank	QC	%lA	QC
Vinyl chloride	0.20	0.001	<0.001	<0.001	49	98	50
1,1-Dichloroethylene	0.70	0.001	<0.001	<0.001	51	102	50
Methyl ethyl ketone	200.00	0.001	<0.001	<0.001	48	96	50
Chloroform	6.00	0.001	<0.001	<0.001	91	182	50
1,2-Dichloroethane	0.50	0.001	<0.001	<0.001	- 44	88	50
Benzene	0,50	0.001	<0.001	<0.001	50	100	50
Carbon tetrachloride	0.50	0.001	<0.001	<0.001	51	102	50
Trichloroethylene	0,50	0.001	<0.001	<0.001	51	102	50
Tetrachioroethylene	0,70	0.001	<0.001	<0.001	50	100	50
Chlorobenzene	100.00	0.001	<0.001	<0.001	49	98	50
1,4-Dichlorobenzene	7.50	0.001	<0.001	<0.001	49	98	50

	% RECOVERY	RELATIVE PERCENT DIFFERENCE
Dibromofluoromethane	90	8
Toluene - d8	98	1
Bromofluorobenzene	90	6

METHODS: EPA SW-846-8260, 1311.

Jane Huang, Chemist

10-3-94.

Date

PLEASE NOTE: Liability and Datagoe. LCUMM? Hebitity and client's evolutive remody for any claim arising, whether based in contract or tort, shall be limited to the amount poid by the client's evolutive remody for any claims, including those for negligence and any other cause whetsoever shall all claims, including those for negligence and any other cause whetsoever shall all claims. All claims, including those for leaders for incidental or consequential damages, including, without limitation, business intermitted to the, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by LCUMR, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

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ANALYTICAL RESULTS FOR AMOCO PIPELINE CO. ATTN: JIM LUTTER 502 N. W. AVE. LEVELLAND, TX 79336 FAX TO: 1-897-7045

Receiving Date: 09/27/94 Reporting Date: 10/03/94

Project Number: DENTON # 1, EMPIRE # 2

Project Name: NONE GIVEN

Project Location: DENTON & EMPIRE - NM

Sample ID: JDL092794-2 Lab Number: L3165-2 Analysis Date: 09/30/94 Sampling Date: 09/27/94 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: RKT

Analyzed By: SL

	EPA	Detection	Sample Result	Method			True Value
TCLP VOLATILES (ppm)	LIMIT	Limit	L3165-2	Blank	QC	%IA	QC
Vinyl chloride	0.20	0.001	<0.001	<0.001	49	98	50
1,1-Dichloroethylene	0.70	0.001	<0.001	<0.001	51	102	50
Methyl ethyl ketone	200.00	0.001	<0.001	<0.001	48	96	50
Chloroform	6.00	0.001	<0.001	<0.001	91	182	50
1,2-Dichloroethane	0.50	0.001	<0.001	<0.001	44	88	50
Benzene	0.50	0.001	<0.001	<0.001	50	100	50
Carbon tetrachloride	0.50	0,001	<0.001	<0.001	51	102	50
Trichloroethylene	0.50	0.001	<0.001	<0.001	51	102	50
Tetrachloroethylene	0.70	0.001	<0.001	<0.001	50	100	50
Chiorobenzene	100.00	0.001	<0.001	<0.001	49	98	50
1.4-Dichlorobenzene	7.50	0.001	<0.001	<0.001	49	98	50

	% RECOVERY	RELATIVE PERCENT DIFFERENCE
Dibromofluoromethane	90	8
Toluene - d8	98	1
Bromofluorobenzene	90	6

METHODS: EPA SW-846-8260, 1311.

Jane Huang, Chemist

10-3-94

Date



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ANALYTICAL RESULTS FOR AMOCO PIPELINE CO. ATTN: JIM LUTTER 502 N. W. AVE. LEVELLAND, TX 79338 FAX TO: 1-897-7045

Receiving Date: 09/27/94 Reporting Date: 10/03/94

Project Number: DENTON # 1, EMPIRE # 2

Project Name: NONE GIVEN

Project Location: DENTON & EMPIRE - NM

Sample ID: JDL092794-1 Lab Number: L3165-1 Analysis Date: 09/30/94 Sampling Date: 09/27/94 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: RKT

Analyzed By: SL

	EPA	Detection	Sample Result	Method			True Value
TCLP VOLATILES (ppm)	LIMIT	Limit	L3165-1	Blank	QC	%IA	QC
Vinyl chloride	0.20	0.001	<0.001	<0.001	49	98	50
1,1-Dichloroethylene	0.70	0.001	<0.001	<0.001	51	102	50
Methyl ethyl ketone	200.00	0.001	<0.001	<0.001	48	96	50
Chloroform	6.00	0.001	<0.001	<0.001	91	182	50
1,2-Dichloroethane	0,50	0.001	<0.001	<0.001	44	88	50
Benzene	0.50	0.001	<0.001	<0.001	50	100	50
Carbon tetrachloride	0.50	0.001	<0.001	<0.001	51	102	50
Trichloroethylene	0.50	0.001	<0.001	<0.001	51	102	50
Tetrachloroethylene	0.70	0.001	<0.001	<0.001	50	100	50
Chlorobenzene	100.00	0.001	<0.001	<0.001	49	98	50
1,4-Dichlorobenzene	7.50	0.001	<0.001	<0.001	49	98	50

	% RECOVERY	RELATIVE PERCENT DIFFERENCE
Dibromofluoromethane	90	8
Toluene - d8	96	1
Bromofluorobenzene	92	6

METHODS: EPA SW-846-8260, 1311.

Jane Huang, Chemist

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