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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTE FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Louis Dreyfus Natural Gas Telephone: (915) 387-5355

Address: P.O. Box 525, Sonora, TX 76950

Facility Or: Miles Federal #1-E
Well Name

Location Unit or Qtr/Qtr Sec N Sec 05 T 26N R 07W County Rio Arriba

Pit Type: Separator Dehydrator Other

Land Type: BLM ,State ,Fee , Other

Pit Location: (Attach diagram)
Pit dimensions: length 30, width 15, depth 12

Reference: wellhead , Other Stock Tanks

Footage from reference: 20 ft.

Direction from reference: Degrees 270° East North of West South

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet	(20 points)	
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	20
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources	Yes	(20 points)	
	No	(0 points)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)	
	200 feet to 1000 feet	(10 points)	
	Greater than 1000 feet	(0 points)	20

RANKING SCORE (TOTAL POINTS):

Date Remediation Started: 9-28-95 Date completed: 12-6-99

Remediation Method: (Check all appropriate sections)
Excavation X Approx. cubic yards 200
Landfarmed X Insitu Bioremediation
Other

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

General Description of Remedial Action:
Placed excavated soil into two land farm areas. Turn soil and fertilize periodically and sample.

Ground Water Encountered: No Yes X Depth 12 ft

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)
Sample location
Sample depth
Sample date Sample time

Sample Results
Benzene (ppm)
Total BTEX (ppm)
Field headspace (ppm)
TPH

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

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

DATE 7-26-00

SIGNATURE PRINTED NAME AND TITLE Tommy H. Arnwine Environmental & Safety Director

No Landfarm Analysis →

Environmental & Safety Department
P.O. Box 525
Sonora, Texas
76950

Telephone 1 915 387-5355
Fax 1 915 387-3744

Louis Dreyfus Natural Gas

July 26, 2000

New Mexico Oil Conservation Division
Mr. Bill Olson
2400 Pacheco Street
Sante Fe, NM 85730

Re: Miles Federal #1E
Section 05, T26N, R07W
Rio Arriba County, New Mexico

Please consider the enclosed data for "Final Closure" of pit and monitor well at this location.

Data has been gathered on this location from work done by either Louis Dreyfus Natural Gas personnel or by Contract Environmental Services, Inc., working under directions of LDNG personnel. This data includes a sundry notice, pit remediation and closure report , site diagram, and enclosures 1, 2, and 3 discussed below.

Our initial sampling of the monitor well was within limits outlined by State of New Mexico and BLM guidelines (See Enclosure #1). We received a verbal approval to cease sampling of these wells at that time. LDNG proposes to grout the sample well to surface and abandon.

Excavation was not complete, however a report (See Enclosure #2) from Contract Environmental Services shows that excavation was completed as far as possible without disturbing permanent equipment. Verbal approval was received from OCD and BLM to hold excavation at this point.

Our attention was then directed to the soil farm for remediation. Soil samples taken in Nov. of 1999 show the soil farm is within limits of guidelines (See Enclosure #3).

Soil from soil farms will be used to contour location in standards for surrounding area and revegitate to BLM standards for the Largo Canyon area.

Soil samples tested below required 100 ppm in Gasoline and Diesel Ranges for the soil farm.

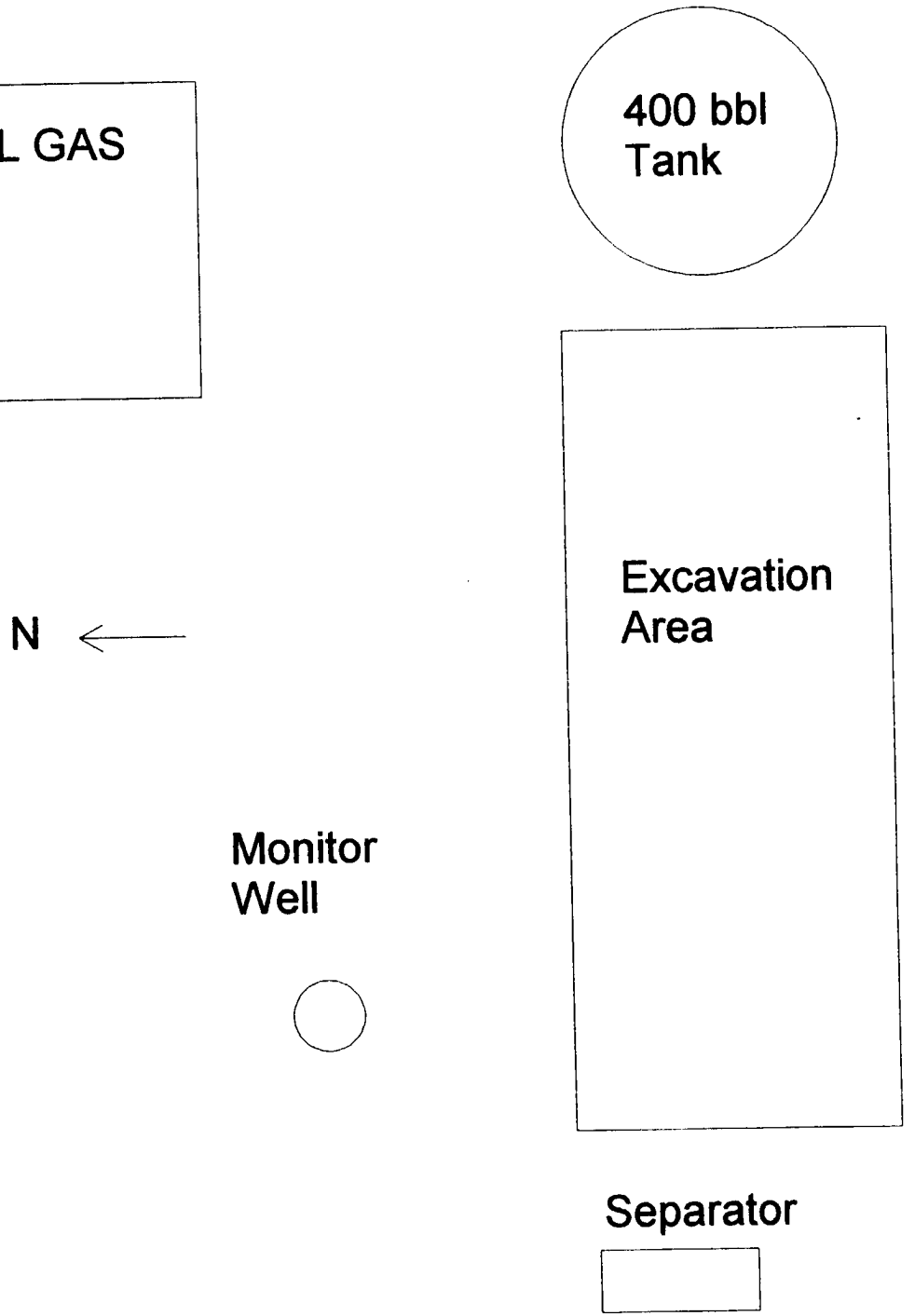
Supporting data for all lab analysis are enclosed and are true and accurate to the best of knowledge. If further information is required, please contact me at (915)387-5355.

Thank you,

Tommy H. Arnwine
Environmental & Safety Director

cc: Gene Simer
OCD- Aztec-Denny Faust
BLM- Farmington- Bill Liese

LOUIS DREYFUS NATURAL GAS
Miles Federal #1-E
Section 05, T26N, R07W
Rio Arriba County, NM



ENCLOSURE #1

MONITOR WELL DATA

MILES FEDERAL # 1-E

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

January 21, 1996

Louis Dreyfus Natural Gas Co.
Mr. Gene Simer
Post Office Box 370
Carlsbad, New Mexico 88221

RE: Miles Federal #1E (Sec 05, T26N, R07W) Monitor Well

Dear Mr. Simer,

Contract Environmental Services, Inc. (CES) is pleased to present this letter report on the installation of a monitoring well for the Miles Federal #1 well location. This report includes background information, scope of services, field test data, laboratory data, conclusions and recommendations.

Background Information

On September 28, 1995 CES began excavating contaminated soil from the separator pit on the above referenced well location. The excavation was completed on September 29, 1995 with an approximate 250 cubic yards of contaminated soil removed. The soil removed was evenly distributed on the surface where it could be soil farmed until remediated. On October 19, 1995 CES issued a technical report presenting the findings of this investigation. On December 4, 1995 CES installed one monitor well in the anticipated downgradient direction from the excavation. The following day the monitor well was developed and sampled.

Scope Of Services

CES with the help of Phillip Environmental installed the monitor well to a depth of approximately 27 feet. The monitor well is located 12' from the northwest corner of the excavation (Please see attached Figure 1). The bottom 15' of the 4" PVC pipe was slotted (Please see attached Figure 2) and the top 12' was completed with unscreened PVC pipe. The bottom of the monitor well has a 4" screw-on plug that prevents sediments from entering the bottom of the well. All of the joints were composed of screw-together threads. Silica sand was backfilled 2' above the slotted interval. Above the sand a 2' bentonite plug was placed. The remainder of the open hole was grouted to within 2' of groundlevel. From this point to the surface, the PVC pipe was cemented in place. A riser was left on the monitoring well approximately 3' above ground level. T-posts and fluorescent flagging was placed on all sides of the monitor well to protect it before leaving.

The monitor well was developed until the muddy water cleared up prior to sampling. An estimated five volumes of water were removed before collection for laboratory analyses. Water samples were gathered to be analyzed for Benzene, Toluene, Ethylbenzene, Xylenes (BTEX); Metals; Cations / Anions; and Polyaromatic Hydrocarbons (PAH). All water was analyzed using EPA Test Methods.

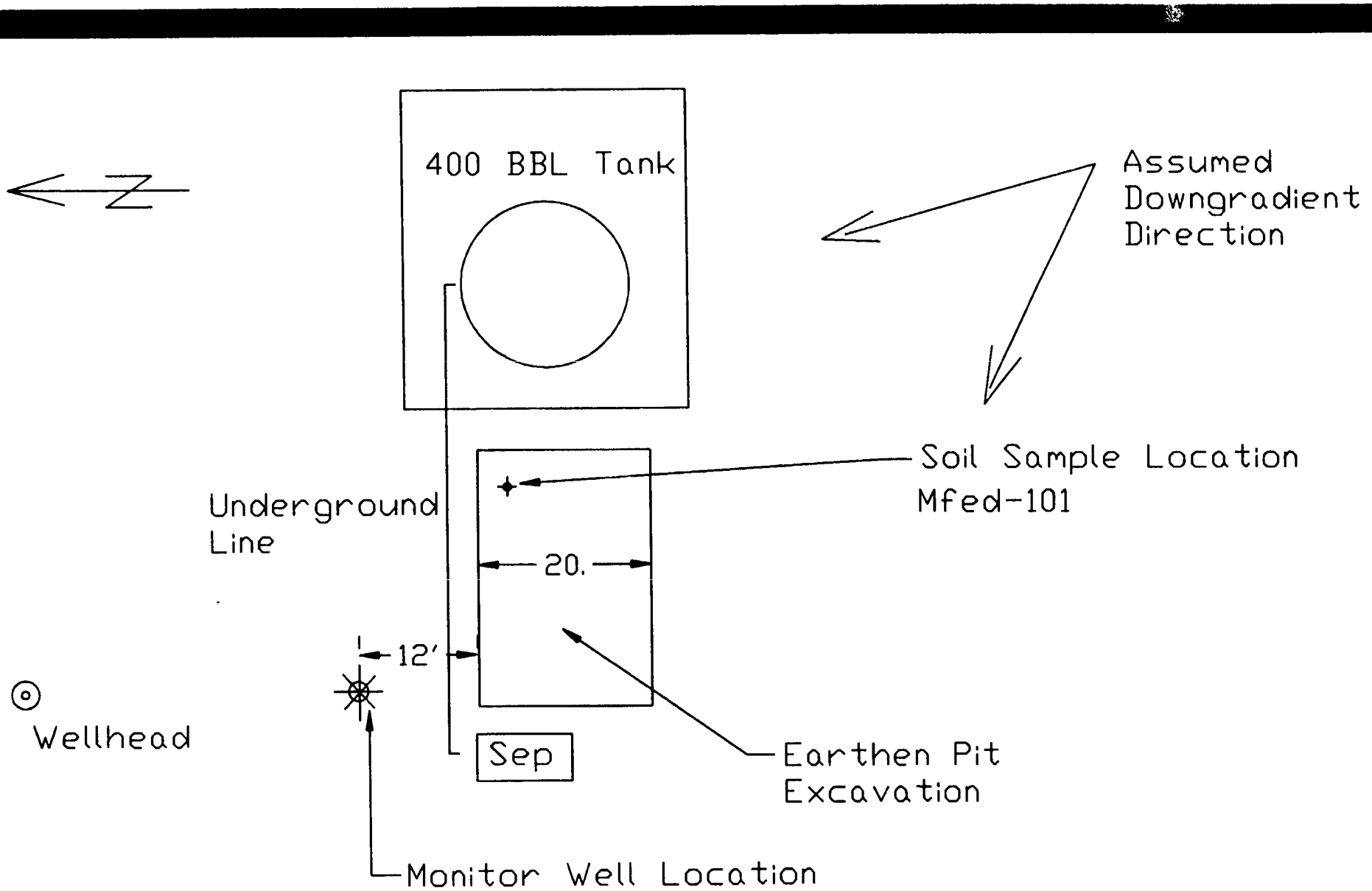
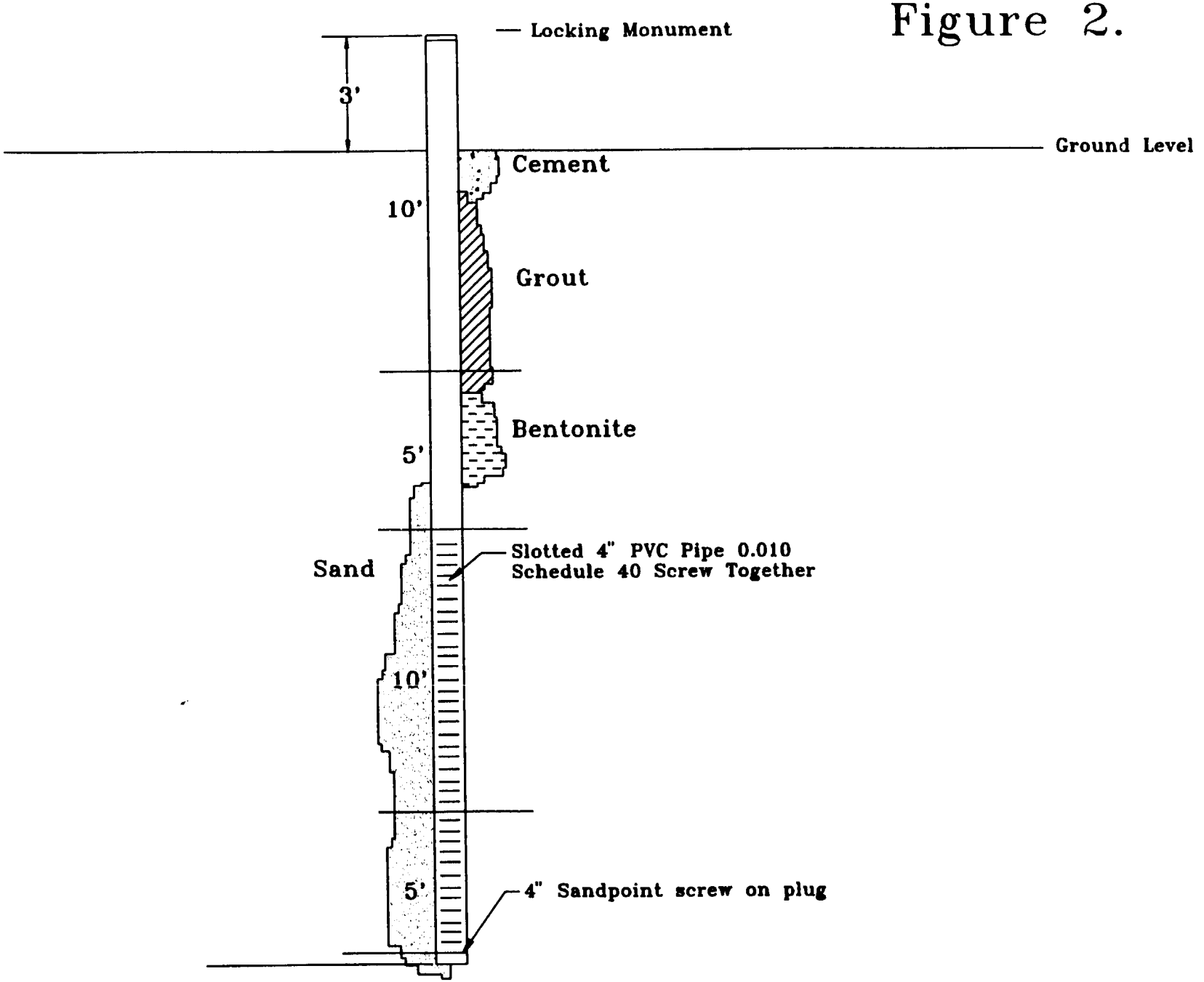

400 BBL Tank
Assumed
Downgradient
Direction
Soil Sample Location
Mfed-101
Underground
Line
20.
12'
Wellhead
Sep
Earthen Pit
Excavation
Monitor Well Location

Figure 1.

Figure 2.


Locking Monument
3'
Ground Level
Cement
10'
Grout
Bentonite
5'
Sand
Slotted 4" PVC Pipe 0.010
Schedule 40 Screw Together
10'
5'
4" Sandpoint screw on plug

During the drilling operations, soil samples were gathered approximately every 5' of depth. Samples were collected from split-spoon samplers driven 24" into the soil. The soil was placed in baggies and tested with the PID Meter for hydrocarbons. The depth to water from the top of the casing riser measured 15'-0". Considering the height of the riser, that makes the first measured depth to groundwater approximately 12'.

Field Test Data

Field data collected during the drilling process included soil samples tested with a Photo-Ionization Detector (PID) Meter. The field data gathered is presented in the following Table.

Table 1-1.

Sample No.	Depth	PID(PPM)
1	8-10'	1.8
2	13-15'	1.3

Laboratory Data

The laboratory data gathered is summarized in the following Table. Individual laboratory reports are attached for your viewing.

Table 1-2.

Sample No.	Description		(Units)	
Mfed-400	BTEX EPA Method 602.2	B	ND	PPB
		T	ND	PPB
		E	0.58	PPB
		X	1.26	PPB
Mfed-401	Metals EPA Method 600/4	Arsenic	0.012	PPM
		Barium	<0.25	PPM
		Cadmium	<0.002	PPM
		Chromium	<0.02	PPM
		Lead	<0.005	PPM
		Mercury	<0.001	PPM
		Selenium	<0.005	PPM
		Silver	<0.01	PPM
Mfed-402	Cation / Anion EPA Method 8310	Total Hardness	80.8	PPM
		Calcium	24.3	PPM
		Magnesium	4.91	PPM
		Potassium	7.0	PPM
		Sodium	830	PPM
		Iron	0.07	PPM
		Total Alkalinity	497	PPM
		Bicarbonate	497	PPM
		Chloride	20.0	PPM
		Sulfate	1,440	PPM
	Cation / Anion Difference = 3.34			

Mfed-403	Polynuclear Aromatic Hydrocarbons	Acenaphthene	<2.13	PPB
		Acenaphthylene	<3.74	PPB
		Anthracene	<1.49	PPB
		Benzo(a)anthracene	<0.88	PPB
		Benzo(a)pyrene	<0.39	PPB
		Benzo(b)fluoranthene	<0.19	PPB
		Benzo(k)Fluoranthene	<0.34	PPB
		Benzo(ghi)perylene	<1.23	PPB
		Chrysene	<0.88	PPB
		Dibenzo(a,h)anthracene	<0.72	PPB
		Fluoranthene	<0.15	PPB
		Fluorene	<1.29	PPB
		Indeno(1,2,3-cd)pyrene	<1.05	PPB
		Naphthalene	<5.82	PPB
		Phenanthrene	<1.22	PPB
		Pyrene	<0.13	PPB

Conclusions

Water data for BTEX was below New Mexico Drinking Water Standards as outlined in NMED Drinking Water Regulations (Title 20, Chapter 7, Part 1). Large numbers were found in the following concentrations, Sodium, Alkalinity, Sulfate. These values are to be considered normal for water found in a wash bottom such as this.

Recommendations

As confirmed with NMOCD, CES recommends that a second interval of BTEX water analyses should be collected from the monitor well within 60 days. If the BTEX concentration is below groundwater standards as found in this first interval, the monitoring well should be grouted to the surface and abandoned. "No Further Action" would be applied for to NMOCD for groundwater remediation. The contaminated soil in the soil farm should be regularly tilled as the weather warms until it has been reduced to less than 100 PPM from a laboratory TPH analysis. The excavation could then be backfilled and a "Closure Package" prepared for distribution to NMOCD.

Contract Environmental Services, Inc. appreciates this opportunity to present this letter report on the Miles Federal # 1E to Louis Dreyfus Natural Gas. If you have questions or require additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

ANALYTICA
ENVIRONMENTAL LABORATORY

PURGEABLE AROMATICS

Contract Environmental Services, Inc.

Project ID:	Largo Wells	Report Date:	12/09/95
Sample ID:	400 - 403	Date Sampled:	12/05/95
Lab ID:	2065	Date Received:	12/05/95
Sample Matrix:	Water	Date Analyzed:	12/08/95
Preservative:	Cool		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	0.58	0.50
m,p-Xylenes	1.26	1.00
o-Xylene	ND	0.50

Total BTEX	**2.48**

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	103	88 - 110%
Bromofluorobenzene	90	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANALYTICA
ENVIRONMENTAL LABORATORY

Total Metals Analysis
Contract Environmental Services, Inc.

Project ID:	Largo Wells	Date Reported:	01/09/96
Sample ID:	400 - 403	Date Sampled:	12/05/95
Laboratory ID:	2065	Time Sampled:	NA
Sample Matrix:	Water	Date Received:	12/05/95

Parameter	Analytical Result (mg/L)	Units
Trace Metals		
Arsenic	0.012	mg/L
Barium	< 0.25	mg/L
Cadmium	< 0.002	mg/L
Chromium	< 0.02	mg/L
Lead	< 0.005	mg/L
Mercury	< 0.001	mg/L
Selenium	< 0.005	mg/L
Silver	< 0.01	mg/L

Reference: U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983.
Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Comments:

Review

ANALYTICA
ENVIRONMENTAL LABORATORY

API Suite

Contract Environmental Services, Inc.

Project ID:	Largo Wells	Date Reported:	01/09/96
Sample ID:	400 - 403	Date Sampled:	12/05/95
Laboratory ID:	2065	Time Sampled:	NA
Sample Matrix:	Water	Date Received:	12/05/95

Parameter		Analytical Result	Units
General	Lab pH	7.9	s.u.
	Lab Conductivity @ 25° C	4,000	µmhos/cm
	Total Dissolved Solids @ 180°C	2,640	mg/L
	Total Dissolved Solids (Calc)	2,630	mg/L
	Specific Gravity	1.005	***
Anions	Total Alkalinity as $CaCO_3$	497	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	497	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	20.0	mg/L
	Sulfate	1,440	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	80.8	mg/L
	Calcium	24.3	mg/L
	Magnesium	4.91	mg/L
	Potassium	7.0	mg/L
	Sodium	830	mg/L
	Iron	0.07	mg/L
Data Validation			Acceptance Level
	Cation/Anion Difference	3.34	+/- 5 %
	TDS (180):TDS (calculated)	1.0	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Review

ANALYTICA
ENVIRONMENTAL LABORATORY

Polyaromatic Hydrocarbons
EPA Method 8310

Contract Environmental Services, Inc.

Project ID:	Largo Wells	Report Date:	01/05/96
Sample ID:	400 - 403	Date Sampled:	12/05/95
Lab ID:	2065	Date Received:	12/05/95
Sample Matrix:	Water	Date Extracted:	12/11/95
Preservative:	Cool	Date Analyzed:	12/21/95
Condition:	Intact		

Target Analyte	Concentration (µg/L)
Acenaphthene	< 2.13
Acenaphthylene	< 3.74
Anthracene	< 1.49
Benzo(a)anthracene	< 0.88
Benzo(a)pyrene	< 0.39
Benzo(b)fluoranthene	< 0.19
Benzo(k)fluoranthene	< 0.34
Benzo(ghi)perylene	< 1.23
Chrysene	< 0.88
Dibenzo(a,h)anthracene	< 0.72
Fluoranthene	< 0.15
Fluorene	< 1.29
Indeno(1,2,3-cd)pyrene	< 1.05
Naphthalene	< 5.82
Phenanthrene	< 1.22
Pyrene	< 0.13

Reference: EPA Method 8310: Polynuclear Aromatic Hydrocarbons .

Review

ANALYTICA
ENVIRONMENTAL LABORATORY
807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

CHAIN OF CUSTODY

Page _____ of _____

PROJECT MANAGER: _____
Analytica Lab I.D.: _____

Company: Contract Env. Serv.
Address: PO Box 505 Kirtland NM
Phone: 325-1198
Fax: _____

Bill To: Louis Dreyfus Nat'l Gas
Company: PO Box
Address: Farmington NM 87499

Sample ID	Date	Time	Matrix	Lab ID	ORGANIC ANALYSES: Petroleum Hydrocarbons (418.1)	Gasoline / Diesel (mod. 8015)	Gasoline (GRO)	Aromatic HCs BTEX/MTBE (602 / 8020)	Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1 / 503.1)	Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150)	Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100)	TCLP Extraction	Other (specify):	WATER ANALYSES: Cation / Anion	Specific Cations (specify):	Specific Anions (specify):	BOD / Fecal / Total Coliform	Solids: TDS / TSS / SS	Nutrients: NH4+ / NO2– / NO3– / TKN	Oil and Grease	Other (specify):	METALS: Priority Pollutants	RCRA Metals (Total) Diesel only	RCRA Metals TCLP (1311)	Other (specify):	COMMENTS
400-403	12-5-96		water					X							X			X									X		
404-407	"		"					X							X			X									X		
408-411	"		"					X							X			X									X		

Project Information	Sample Receipt
Proj. #:	No. Containers:
Proj. Name: Large Wells	Custody Seals: Y / N / NA
P. O. No:	Received Intact:
Shipped Via:	Received Cold:
Required Turnaround Time (Prior Authorization Required for Rush)	

Sampled By:	Relinquished By:	Relinquished By:
Signature / Date: 12-5-96	Signature / Date:	Signature / Date:
Company: Contract Env. Serv. / Time:	Company: / Time:	Company: / Time:
Received By:	**Received By:**	**Received By:**
Signature / Date:	Signature / Date:	Signature / Date: 12/5
Company: / Time:	Company: / Time:	Company: Analytica / Time: 4:30

Please Fill Out Thoroughly.

Shaded areas for lab use only.

White/Yellow: Analytica
Pink: Client

ENCLOSURE #2

PIT EXCAVATION DATA

MILES FEDERAL # 1-E

[illegible]

Louis Dreyfus Natural Gas

re: Miles Federal 1-E
Sec. 5 T26N R07W

Rationale for Risk Based Closure

From the report of Contract Environmental Services, Inc., (enclosed) it was concluded that contamination depth was reached, however not all contanmination was removed from the walls of pit excavation.

"On the north side of the excavation a subsurface flowline prevents removing all contaminated material. On the east side a burm and fence around storage tanks prevents further excavation in that direction. Underground lines and surface equipment prevented further excavation in at least two of the four directions.

The excavation was left open for an extended period of time to allow the contaminated soils in the wall to remediate.

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

October 19, 1995

New Mexico Oil Conservation Division
Mr. Bill Olson
2400 Pacheco Street
Santa Fe, New Mexico 85730

RE: Louis Dreyfus Natural Gas Corporation, Miles Federal #1E, Sec 5, T26N, R07W SE/SW, Rio Arriba County, New Mexico

Dear Mr. Olson,

Contract Environmental Services, Inc. (CES) is pleased to present this "Plan of Action" for the Miles Federal #1E well location on behalf of Louis Dreyfus Natural Gas Corporation (LDNG). This plan contains background information, current site assessment data, a site plan, conclusions and a "Plan of Action".

Background Information

On September 28, 1995 CES began excavating the soil immediately below the earthen pit. As soils were removed from the excavation, periodic samples were gathered to be analyzed using a Photo-Ionization Detector (PID) meter. Soils removed were transferred to another portion of the wellpad to establish a soil farm for continued remediation. These soils were spread on the wellpad some 6" to 12" in depth to allow for aeration and the release of volatile aromatic hydrocarbons.

Approximately 300 cubic yards of contaminated soil was removed from the pit area during the excavation process. Except in the pit center, at a depth of 12-13' field PID soil samples indicated that the contaminated soil had been removed. A confirmation laboratory soil sample was gathered to be processed for Total Petroleum Hydrocarbons (TPH) using EPA Method 418.1. This laboratory soil analysis confirmed that uncontaminated soil had been reached around the perimeter of the pit center. The remainder of the pit area was "Cleaned Out" to this same depth. It is anticipated that not all contamination was removed from the walls of the excavation. On the north side of the excavation a subsurface flow line prevents removing all contaminated material. On the east side a berm and fence around storage tanks prevents further excavation in that direction. Underground lines and surface equipment prevented further excavation in at least two of the four directions. Leaving the excavation open for an extended period of time will enable the contaminated soils in the wall to remediate as well.

The following is field PID data collected during the removal process.

West Side Of Earthen Pit
9/28/95

PID Field Data Collected

Depth	Sample No.	PID(PPM)	Location
4'	#1	2000+	West side
8'	#2	2000+	West side
10'	#3	1500	West side
13'	Groundwater Encountered		

Center Of Earthen Pit
9/29/95

PID Field Data Collected

Depth	Sample No.	PID(PPM)	Location
4'	#1	2000+	Center of Pit
8'	#2	1500	Center of Pit
12'	#3	1500	Center of Pit
13'	Groundwater Encountered		

East Side Of Earthen Pit
10/3/95

PID Field Data Collected

Depth	Sample No.	PID(PPM)	Location
4'	#1	2000+	East side
8'	#2	2000+	East side
12'	#3	1500	East side

West Side Of Earthen Pit
10/3/95

PID Field Data Collected

Depth	Sample No.	PID(PPM)	Location
4'	#1	2000+	West side
8'	#2	1500	West side
12'	#3	1500	West side
13'	Groundwater Encountered		

Laboratory Data Collected

Depth	Sample No.	PID(PPM)	Location
12'	MFED-101	ND	Northeast Corner

* Note: ND = Not Detected

At a depth of 13' groundwater was encountered in this excavation. However, the field PID data and the recently received laboratory data indicate that significant clean soil in some areas of the excavation was reached prior to contact with any groundwater. The central area of the pit showed continued contamination to groundwater level.

Conclusions

Soil contamination in the center of the excavation continued until groundwater was encountered. Soil contamination in some areas discontinued prior to groundwater contact. The core of the contamination has been removed and is currently remediating on the well pad. Remaining wall contamination will remediate while the excavation remains open during the soil remediation process. CES believes that LDNG has adequately removed contaminated soil and sufficiently defined the vertical extent. CES ranks this site at 100 PPM cleanup score with a maximum benzene level of 10 PPM. The amount of impact to the groundwater is unknown at this point.

Plan of Action

Remediate the soils contained in the soil farm to below 100 PPM laboratory TPH by EPA Method 418.1 or 8015 Modified for gas and diesel. Auger in a monitor well approximately 5' into the groundwater in a downgradient direction from the excavation. A water sample will be collected from this monitor well after the standard 3 volumes of water have been extracted. The water sample will be analyzed for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) using EPA Method 8020. Return the remediated soils to the pit area as backfill and slightly dome the area to prevent water ponding. In addition, the soils will be checked for contamination approximately every 4' during the drilling process while installing the monitor well. A report on the finding will be presented to NMOCD for their records.

Contract Environmental Services, Inc. appreciates this opportunity to present this "Plan of Action" on behalf of Louis Dreyfus Natural Gas Corporation. If you have questions or require additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

cc: Mr. Denny Foust, NMOCD Farmington
Mr. Bill Liese, BLM Farmington

ENCLOSURE #3

SOIL FARM DATA

MILES FEDERAL # 1-E

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

December 06, 1999

Tommy H. Arnwine
Louis Dreyfus Natural Gas
P.O. Box 220
Flora Vista, NM 87415
TEL: (915) 387-5355
FAX (915) 387-3744

RE: Landfarms

Order No.: 9911023

Dear Tommy H. Arnwine,

On Site Technologies, LTD. received 7 samples on 11/12/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Diesel Range Organics (SW8015B)
Gasoline Range Organics (SW8015B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

David Cox

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

On Site Technologies, LTD. **Date:** *06-Dec-99*

CLIENT: Louis Dreyfus Natural Gas
Project: Landfarms
Lab Order: 9911023

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

10421

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: _____

Page: _____ of _____

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name	Louis Dreyfus Natural Gas	REPORT RESULTS TO: Name	Title
Company	Dept.	Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

PROJECT LOCATION:

SAMPLER'S SIGNATURE:

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	8015 MOD GRO/DRO	BTEX	LAB ID
Land Farm MKL 5-A #1					X			9911023-01A
MKL 5-A #3					X			
Fed-6-32 #1					X			9911023-02A
" #2					X			
" #3					X			
Miles 1-E #1					X			9911023-03A
#2					X			
#3					X			
MKL 2-R #1					X			9911023-04A

ANALYSIS REQUESTED

Relinquished by:	Date/Time	Received by: Heidi Reese	Date/Time 11/12/99 1415
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Rush | | 24-48 Hours | | 10 Working Days | | By Date |

Authorized by: Mike Ramsey Date 11/12/99 2:15 PM
(Client Signature Must Accompany Request)

Special Instructions / Remarks:
RUN BTEX ONLY IF 8015 MOD PASSES
OK 11/12/99

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

Louis Dreyfus Natural Gas

ENVIRONMENTAL & SAFETY DEPARTMENT

TOMMY H. ARNWINE
MARIBEL PEREZ

PHONE # (915) 387-5355
FAX # (915) 387-3744

DATE: 9-7-00

NO. OF PAGES 2
(Including Cover Page)

TO: Bill Olson

FROM: Tommy Arnwine

COMPANY

COMPANY

COMMENTS:

Here is a copy of the lab analysis you needed.
The hard copy is in the mail.

Thank You,
Maribel

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *06-Dec-99*

Client:	Louis Dreyfus Natural Gas	**Client Sample Info:**	Landfarm
Work Order:	9911023	**Client Sample ID:**	Miles 1-E Composite (#1/#2/#3)
Lab ID:	9911023-03A **Matrix:** SOIL	**Collection Date:**	11/12/99
Project:	Landfarms	**COC Record:**	10421-10422

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
		SW8015B				Analyst: **DM**
DIESEL RANGE ORGANICS						
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	11/24/99
		SW8015B				Analyst: **DC**
GASOLINE RANGE ORGANICS						
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	11/16/99
		SW8015B				Analyst: **DM**
GASOLINE RANGE ORGANICS						
Benzene	ND	10		µg/Kg	1	11/16/99
Ethylbenzene	ND	10		µg/Kg	1	11/16/99
m,p-Xylene	ND	20		µg/Kg	1	11/16/99
o-Xylene	ND	20		µg/Kg	1	11/16/99
Toluene	ND	30		µg/Kg	1	11/16/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- IN HARMONY WITH THE ENVIRONMENT -