

OK

Denny E. Frost
DEPUTY OIL & GAS INSPECTOR

FEB 08 1999

Approved

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE

P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL-GAS
ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (BROG) Telephone: 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: JICARILLA G-8A

Location: Unit: P Sec. 2 T. 26 N R. 5 W County Rio Arriba

Pit Type: Separator X Dehydrator Other

Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 20 width 20 depth 5

(Attach diagram) Reference: wellhead X other

Footage from reference: 99'

Direction from reference: 45 Degrees East North X

X 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) 0

Wellhead Protection Area:

(Less than 200 feet from a private domestic water source, or, less than 1,000 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 1,000 feet (10 points)
Greater than 1,000 feet (0 points) 0

Distance to Ephemeral Stream (dry wash):

(Horizontal distance to all downgradient streams having a width of at least 10 feet)

Less than or equal to 100 feet (10 points)
Greater than 100 feet (0 points) 10

Distance to Nearest Lake, Playa, or Watering Pond:

(Horizontal distance to all downgradient lakes, playas and livestock or wildlife water ponds)

Less than or equal to 100 feet (10 points)
Greater than 100 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 4/23/98 Date Completed: 7/28/98

Remediation Method: Excavation X Approx. Cubic Yards 2149

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds): 2149

Other _____

Remediation Location: Onsite X Offsite _____

(i.e., landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action:

Removed contaminated soil from ALL four side walls
And Pit Bottom as to get a below 100ppm head
space reading. EXCAVATION SIZE 52'x36'x31'

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit Closure Sampling:

Sample Location North, East, South, West side walls
and bottom of Pit

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth 31'

Sample date 4/29/98 Sample time 1057

Sample Results

Soil: Benzene (ppm) _____ Water: Benzene (ppb) _____

Total BTEX (ppm) _____ Toluene (ppb) _____

Field headspace (ppm) 261 22.6 Ethylbenzene (ppb) _____

TPH 38 ppm Method 8015 Total Xylenes (ppb) _____

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

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

DATE 5/12/98 PRINTED NAME Roy Burnham

SIGNATURE Roy Burnham AND TITLE Environmental Technician II

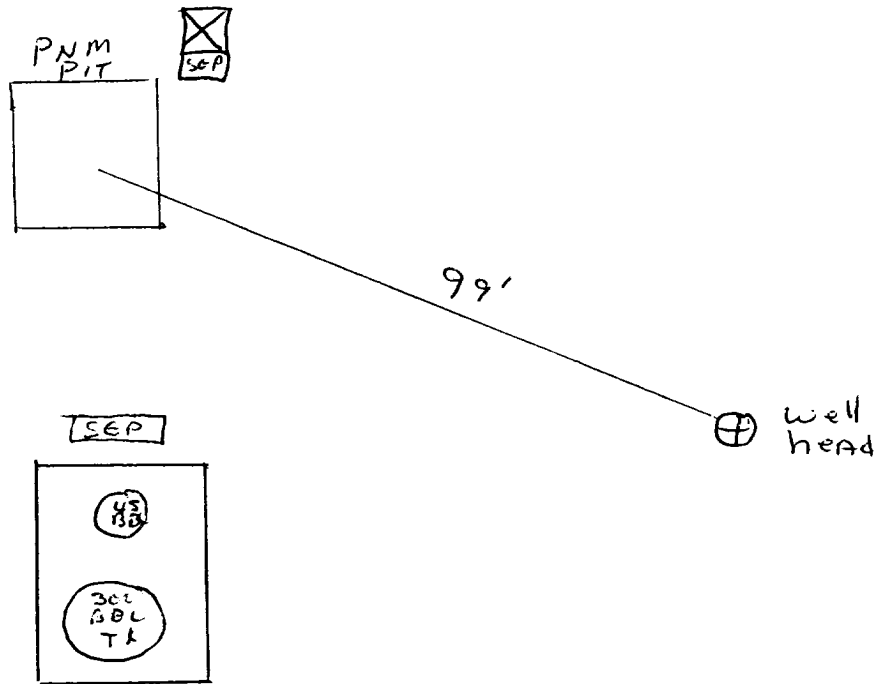
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON): _____

SIGNED: Ken C Mammill DATE: 5-13-1998

Jicarilla G-8A
Sec 2 T26N R5W unit P

SITE DRAWING

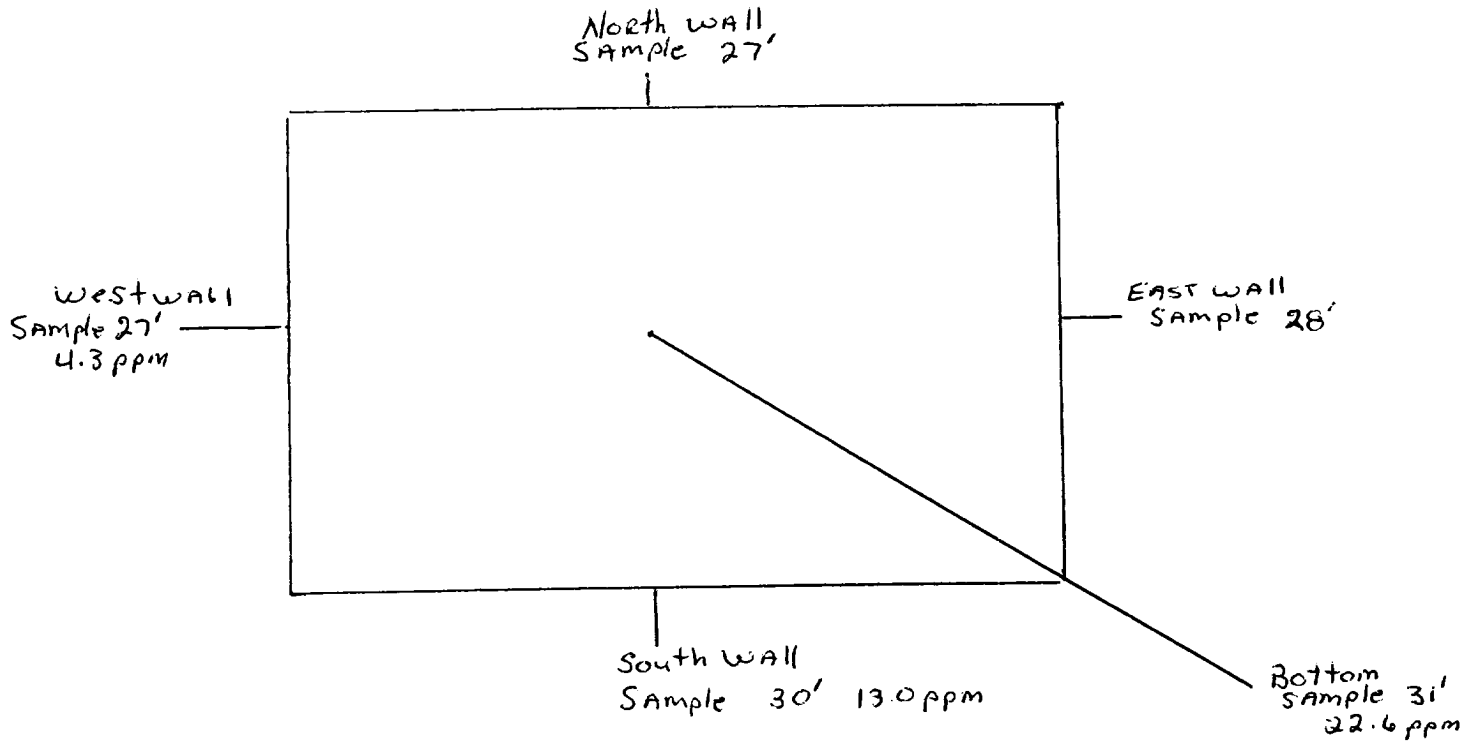


Jicarilla G-8A

Sec 2 T 26N R 5W unit P

52' X 36' X 31'

EXCAVATION DRAWING



5'	989 ppm
10'	1750 ppm
15'	1525 ppm
20'	1236 ppm
25'	350 ppm
30'	175 ppm
31'	22.6 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 06-May-98

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation

Lab Order: 9804062

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.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 06-May-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla G-8A
Work Order:	9804062	Client Sample ID:	9804291057; 3pt. Bottom
Lab ID:	9804062-02A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	4/29/98 10:57:00 AM
		COC Record:	7150

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	38	25		mg/Kg	1	4/30/98

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

1 of 1

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OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 06-May-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla G-8A
Work Order:	9804062	Client Sample ID:	9804291056; 4pt. Composite (SIDEWALLS)
Lab ID:	9804062-01A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	4/29/98 10:56:00 AM
		COC Record:	7150

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	33	25		mg/Kg	1	4/30/98

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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

#1

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ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

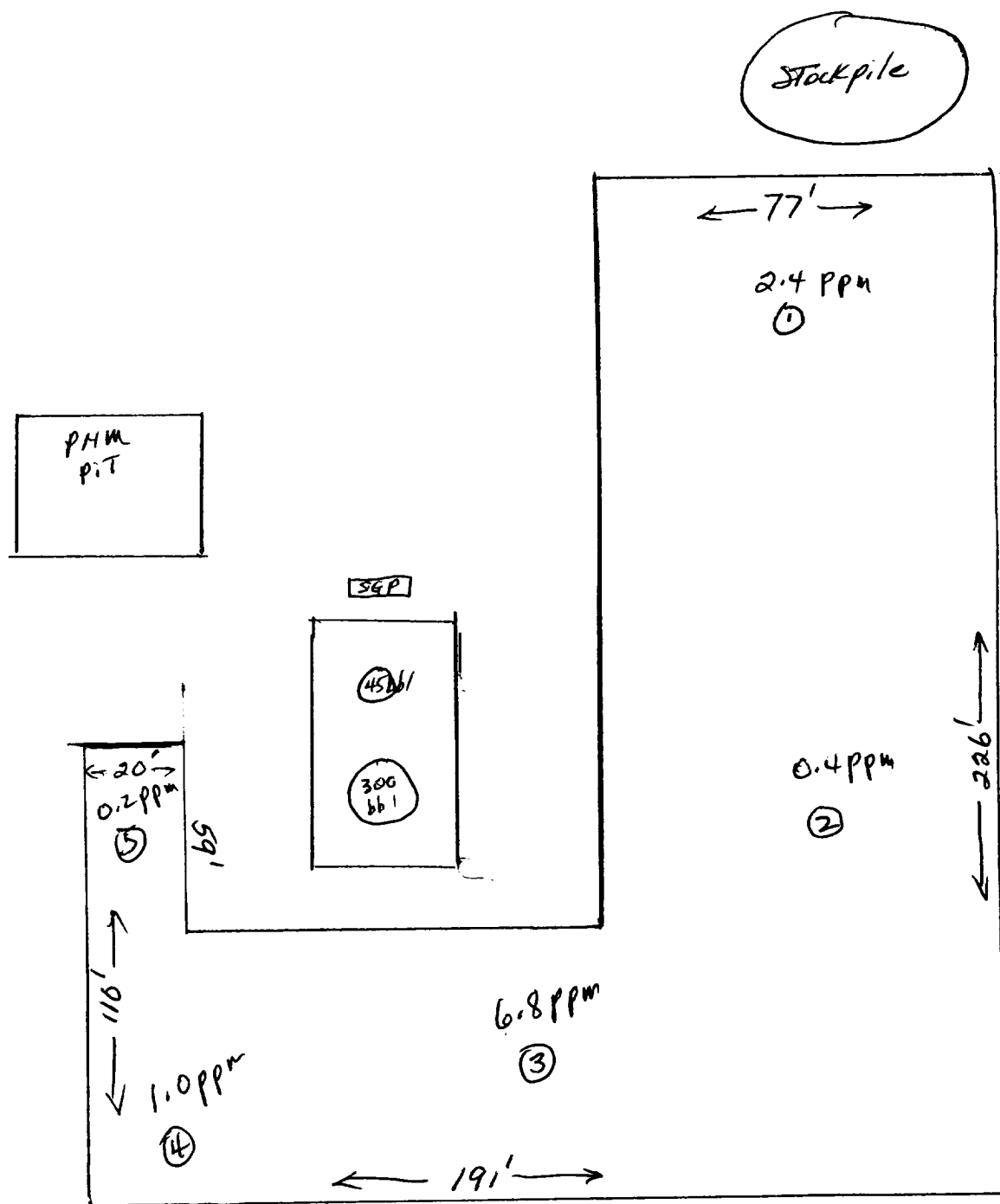
Operator: PNM Gas Services (BROG) Telephone: 324-3764																			
Address: 603 W. Elm Street Farmington, NM 87401																			
Facility or Well Name: Jicarilla G-8A																			
Location: Unit: <u>P</u> Sec. <u>2</u> T. <u>26</u> N R. <u>5</u> W County <u>Rio Arriba</u>																			
Land Type: Jicarilla Apache																			
Date Remediation Started: <u>4/23/98</u> Date Completed: <u>6/17/98</u>																			
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards <u>716</u> Composted <input type="checkbox"/> Other <input type="checkbox"/>																			
<table><tr><td>Depth to Ground Water:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Distance to an Ephemeral Stream:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Distance to Nearest Lake, Playa, or Watering Pond:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Wellhead Protection Area:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Distance to Surface Water:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Ranking Score (Total Points):</td><td></td><td><u>0</u></td></tr></table>	Depth to Ground Water:	(pts.)	<u>0</u>	Distance to an Ephemeral Stream:	(pts.)	<u>0</u>	Distance to Nearest Lake, Playa, or Watering Pond:	(pts.)	<u>0</u>	Wellhead Protection Area:	(pts.)	<u>0</u>	Distance to Surface Water:	(pts.)	<u>0</u>	Ranking Score (Total Points):		<u>0</u>	Final Closure Sampling: Sampling Date: <u>4/15/98</u> Time <u>0850</u> Sampling Results: Field Headspace (ppm) <u>6.8</u> TPH <u>90</u> (ppm) <u>90</u> Method <u>8015</u> Other _____
Depth to Ground Water:	(pts.)	<u>0</u>																	
Distance to an Ephemeral Stream:	(pts.)	<u>0</u>																	
Distance to Nearest Lake, Playa, or Watering Pond:	(pts.)	<u>0</u>																	
Wellhead Protection Area:	(pts.)	<u>0</u>																	
Distance to Surface Water:	(pts.)	<u>0</u>																	
Ranking Score (Total Points):		<u>0</u>																	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF																			
DATE <u>4/29/98</u> PRINTED NAME <u>Roy Burnham</u>																			
SIGNATURE <u>Roy Burnham</u> AND TITLE <u>Environmental Technician II</u>																			
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE																			
APPROVED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) <u>use as Backfill</u>																			
SIGNED: <u>Joe C. Marshall</u> DATE: <u>6-29-98</u>																			

JICARILLA G-8A

SEC 2 T26N R5W UNIT P

#1

LAND FARM DRAWING



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 22-Jun-98

CLIENT: PNM - Public Service Company of NM

Project: Jicarilla Landfarm

Lab Order: 9806065

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.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jun-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla G-8A Landfarm #1
Work Order:	9806065	Client Sample ID:	9806150850; 5pt. Comp.
Lab ID:	9806065-01A	Matrix:	SOIL
Project:	Jicarilla Landfarm	Collection Date:	6/15/98 8:50:00 AM
		COC Record:	7046

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	90	25		mg/Kg	1	6/17/98

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

1 of 1

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TEL: (505) 325-5667 FAX: (505) 325-5668

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ON-SITE SOIL REMEDIATION REPORT #2

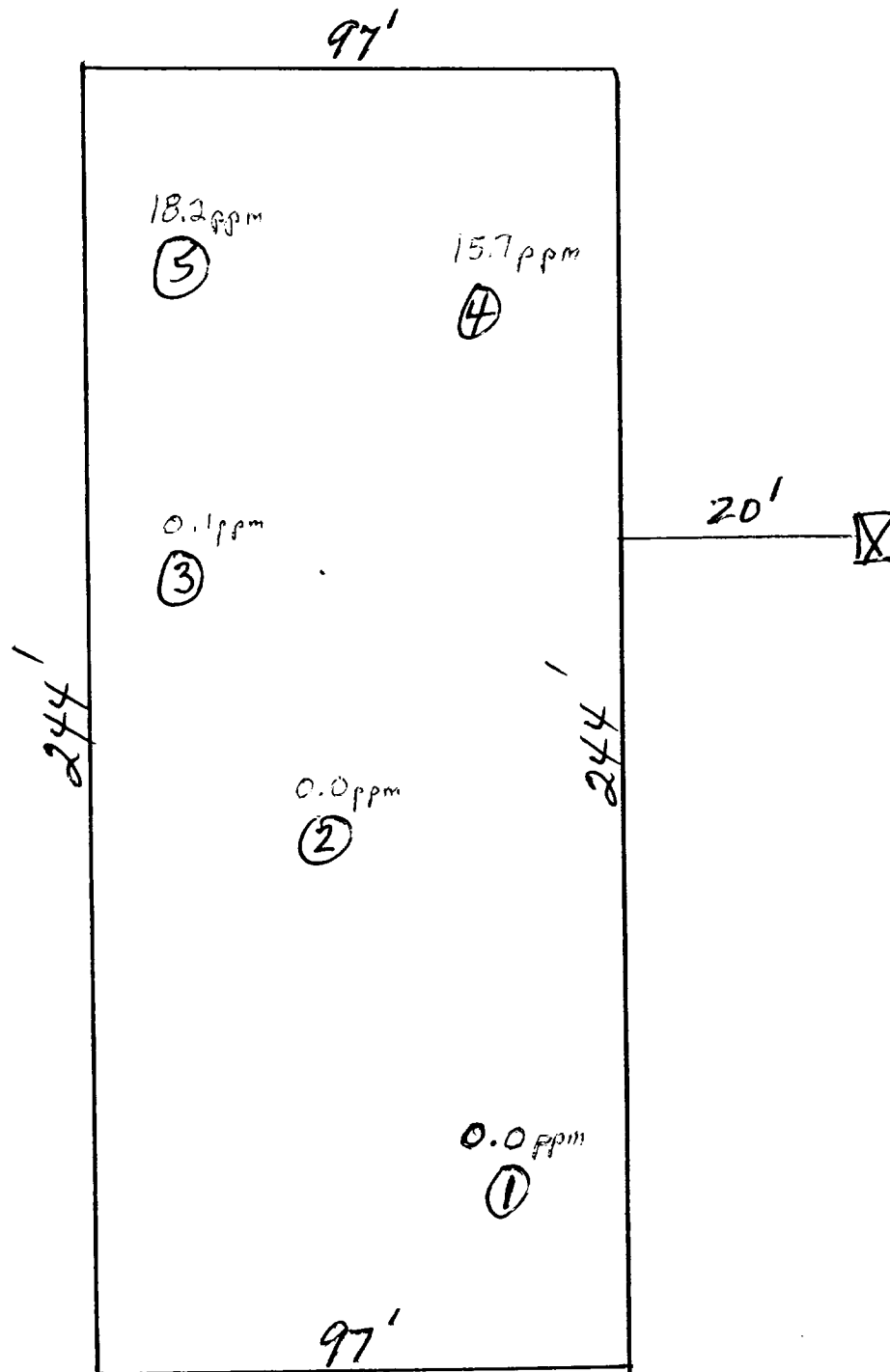
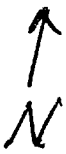
Operator: PNM Gas Services (BROG) Telephone: 324-3764	
Address: 603 W. Elm Street Farmington, NM 87401	
Facility or Well Name: Jicarilla G-8A	
Location: Unit or Qtr/Qtr Sec: P Sec. 2 T. 26 N R. 5 W County Rio Arriba	
Land Type: Jicarilla Apache	
Date Remediation Started: 4/23/98 Date Completed: 7/14/98	
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards 716	
Composted <input type="checkbox"/>	
Other <input type="checkbox"/>	
Depth to Ground Water: (pts.) <u> φ </u>	Final Closure Sampling: Sampling Date: 7/7/98 Time 0803 Sampling Results: Field Headspace (ppm) 18.2 TPH (ppm) 38 Method 8015 Other _____
Distance to an Ephemeral Stream: (pts.) <u> φ </u>	
Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u> φ </u>	
Wellhead Protection Area: (pts.) <u> φ </u>	
Distance to Surface Water: (pts.) <u> φ </u>	
Ranking Score (Total Points): <u> φ </u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE 7/14/98	PRINTED NAME Roy Burnham
SIGNATURE Roy Burnham	AND TITLE Environmental Technician II
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
APPROVED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) use as Backfill	
SIGNED: <u>Kurt Mammell</u>	DATE: 7-28-98

JICARILLA G-BA

BURLINGTON

UNIT P SEC 2 T26N R-5W

LANDFARM # 2



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 14-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla G-8A #2 LF
Work Order:	9807018	Client Sample ID:	9807070803; 5pt. Comp
Lab ID:	9807018-03A	Matrix:	SOIL
Project:	Landfarms	Collection Date:	7/7/98 8:03:00 AM
		COC Record:	7261

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	38	25		mg/Kg	1	7/14/98

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

1 of 1

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OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 14-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla G-8A #2 RD LF
Work Order:	9807018	Client Sample ID:	9807070813; 5pt. Comp
Lab ID:	9807018-04A	Matrix:	SOIL
Project:	Landfarms	Collection Date:	7/7/98 8:13:00 AM
		COC Record:	7261

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	28	25		mg/Kg	1	7/14/98

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

1 of 1

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JICARILLA APACHE TRIBE
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PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

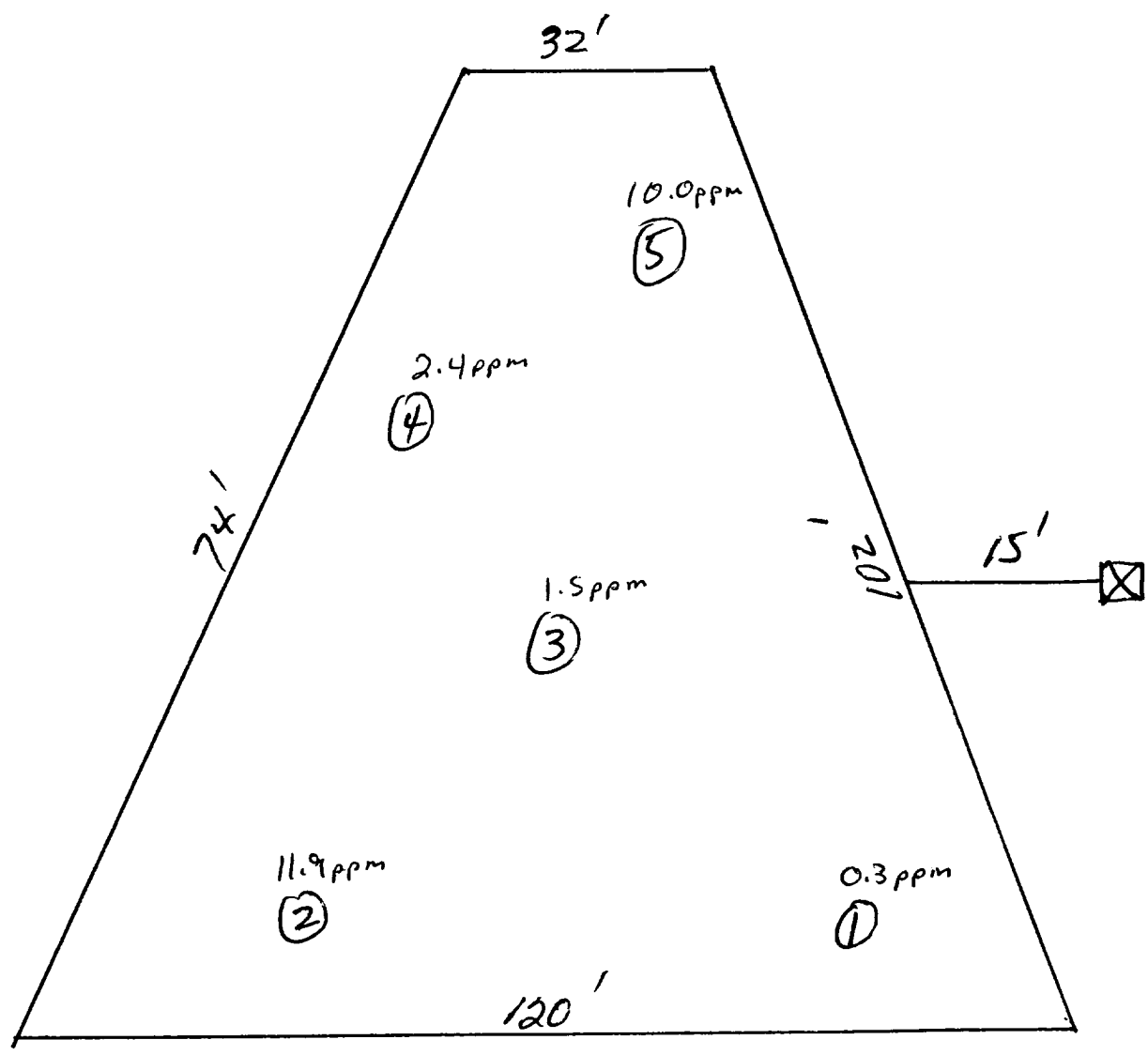
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NATURAL
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AND OIL GAS
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT ^{#3}

Operator: PNM Gas Services (<u>BROG</u>) Telephone: <u>324-3764</u>	
Address: <u>603 W. Elm Street Farmington, NM 87401</u>	
Facility or Well Name: <u>JICARILLA G-8A</u>	
Location: Unit: <u>P</u> Sec. <u>2</u> T. <u>26N</u> R. <u>5</u> W County <u>Rio Arriba</u>	
Land Type: <u>Jicarilla Apache</u>	
Date Remediation Started: <u>4/23/98</u> Date Completed: <u>7/21/98</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>717</u>	
Composted <u> </u>	
Other <u> </u>	
Depth to Ground Water: (pts.) <u>Ø</u>	Final Closure Sampling: Sampling Date: <u>7/15/98</u> Time <u>1511</u> Sampling Results: Field Headspace (ppm) <u>11.9</u> TPH (ppm) <u>64</u> Method <u>8015</u> Other <u> </u>
Distance to an Ephemeral Stream: (pts.) <u>Ø</u>	
Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u>Ø</u>	
Wellhead Protection Area: (pts.) <u>Ø</u>	
Distance to Surface Water: (pts.) <u>Ø</u>	
Ranking Score (Total Points): <u>Ø</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE <u>7/26/98</u>	PRINTED NAME <u>Roy Burnham</u>
SIGNATURE <u>Roy Burnham</u>	AND TITLE <u>Environmental Technician II</u>
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
APPROVED: YES <u>X</u> NO <u> </u> (REASON) <u>use as Backfill</u>	
SIGNED: <u>Kurt M...</u>	DATE: <u>7-28-98</u>

3

JICARILLA G-8A
BURLINGTON
UNIT P SCL 2 T-26N R-5W
LANDFARM #3 ON B^E_(RS) (WEST)



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 23-Jul-98

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9807043

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.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla G-8A #3 LF
Work Order:	9807043	Client Sample ID:	9807151511; 5pt. Composite
Lab ID:	9807043-03A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	7/15/98 3:11:00 PM
		COC Record:	7266

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	64	25		mg/Kg	1	7/21/98

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

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• THE ONLY ANALYTICAL BLENDING INDUSTRY WITH THE QUALITY NAME