

BW – 035

**PERMIT
APPLICATIONS,
RENEWALS, &
MODS (3 of 5)**

2016

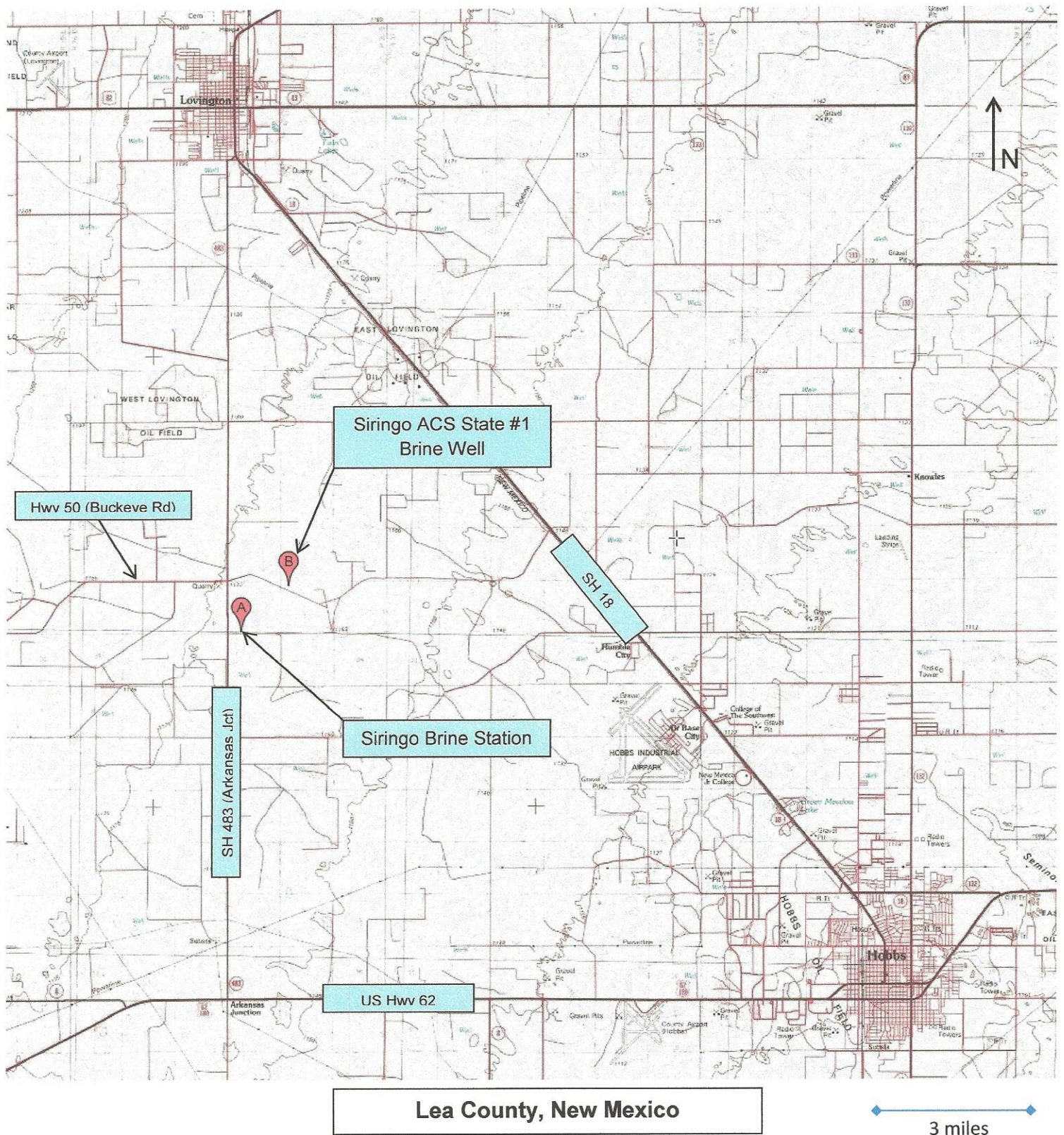
Llano Disposal, LLC
Siringo ACS State #1
Discharge Plan

Attachment Index

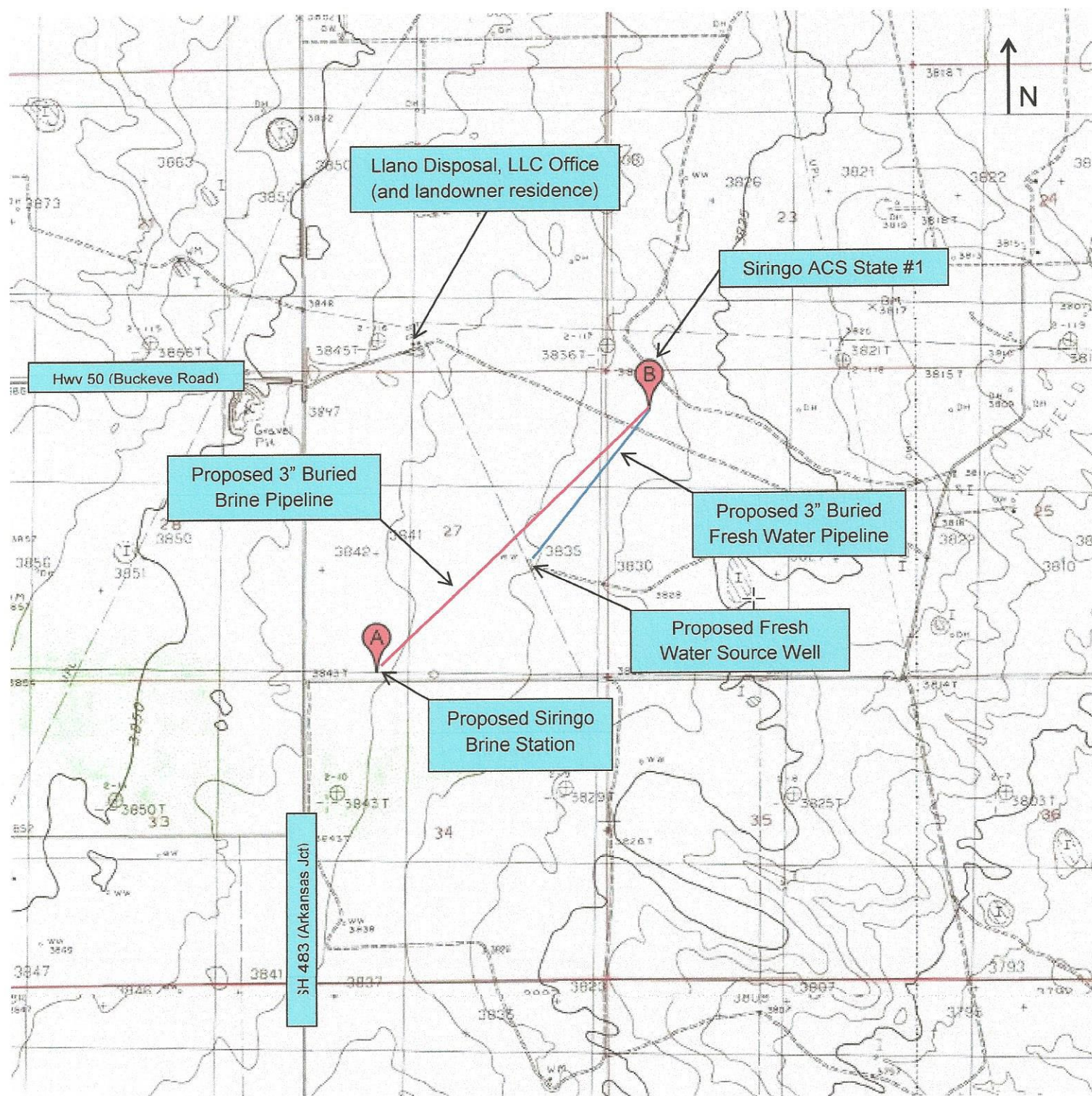
Attachment	Description
A	Overview Map of General Area
B	USGS Topo Map of Area
C	Aerial Photo with Ground Water Monitor Wells
D	1 Mile Area of Review with Oil/Gas Wells and Fresh Water Wells
E	Brine Well Location Site Plan
F	Brine Station Site Plan
G	Plugging Records for Offset Wells Within the 1 Mile Area of Review
H	MSDS for Corrosion Inhibitor Utilized on Brine Well Location
I	NMOCD Drilling, Comp, P&A Records for Siringo ACS State #1
J	Water Analysis Test Results on Area Fresh Water Wells
K	Siringo Emergency Contingency and Response Plan
L	Schematics for Brine Station, Brine Well Location and Brine Well
M	Area Geology Map and General Lithology
N	Cross-sections of Geologic Structure at Siringo ACS State #1
O	USGS Drainage Map of Project Area
P	Subsidence Monument Design and Installation Procedure
Q	Public Notice for Onsite Sign Posting
R	Public Notice for Offsite Posting (Lea County Courthouse)
S	Public Notice Letters to Adjoining Property Owners, SLO, Mineral Lessee
T	Public Notice in Lovington Leader Newspaper

Siringo ACS State #1
API # 30-025-30701
Discharge Plan Attachments

Attachment A – General Area Overview Map



Siringo ACS State #1
API # 30-025-30701
Discharge Plan Attachments
Attachment B – Area USGS Topo Map



**T17S, R36E, NMPM
Lea County, New Mexico**

Siringo ACS State #1
API # 30-025-30701
Discharge Plan Attachments

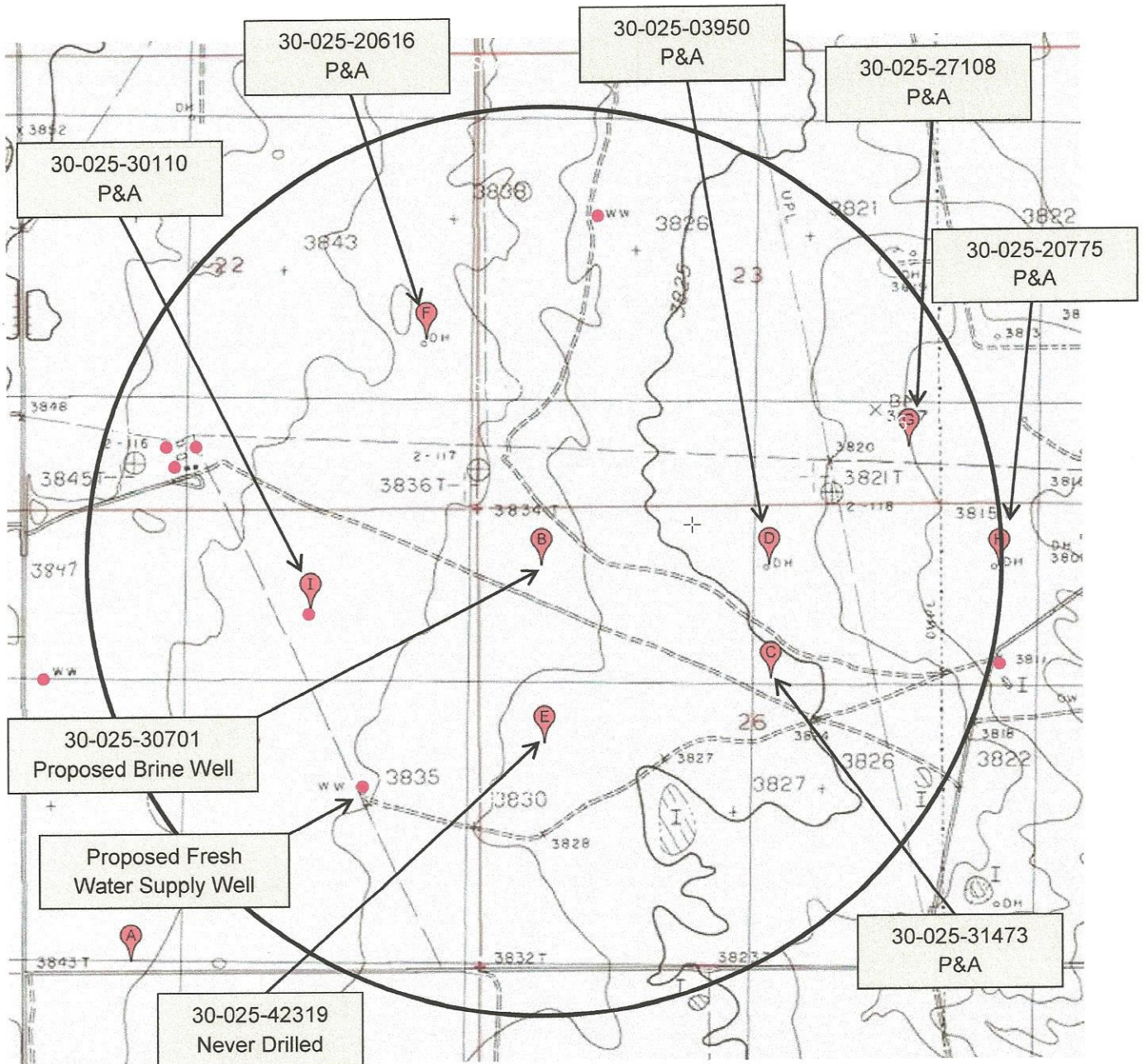
Attachment C – Aerial Photo with Ground Water Monitoring Wells



T17S, R36E, NMMPM
Lea County, New Mexico

Siringo ACS State #1
API # 30-025-30701
Discharge Plan Attachments

Attachment D – 1 Mile AOR with Oil/Gas Wells and Fresh Water Wells

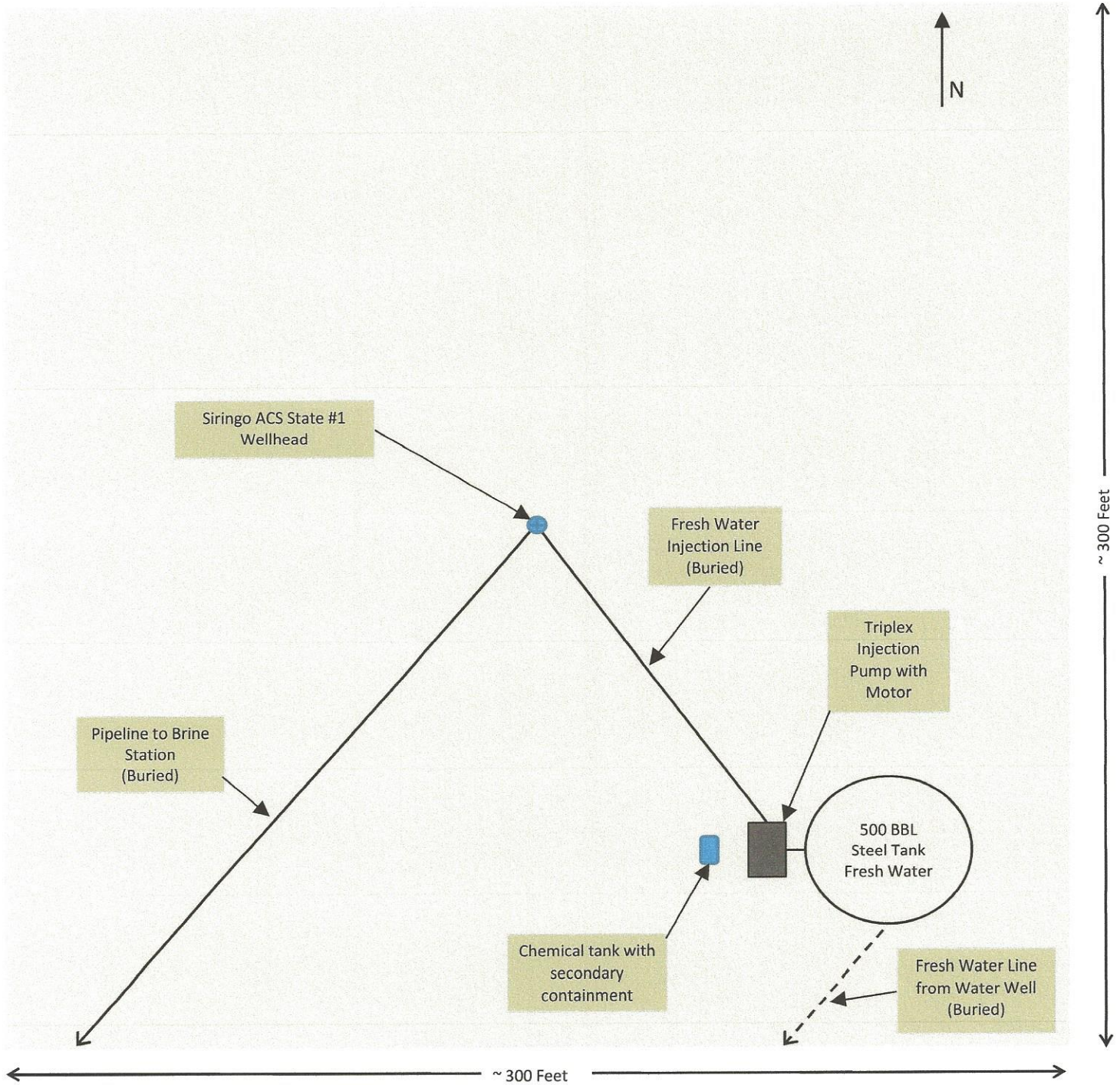


● Fresh Water Wells

T17S, R36E, NMPM
Lea County, New Mexico

Siringo ACS State #1
API # 30-025-30701
Discharge Plan Attachments

Attachment E – Well Location Site Plan



Surface Owner - Angell #2 Family LP
P. O. Box 190, Lovington, NM 88260
Drawing Not to Scale

Surface Owner - Angell #2 Family LP
P. O. Box 190, Lovington, NM 88260
Drawing Not to Scale

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL API NO.
30-025-31473

5. Indicate Type of Lease:

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.
V-3762

7. Lease Name or Unit Agreement Name

Perseus 26 State

8. Well No.
1

9. Pool name or Wildcat
Spencer (Penn)

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL
WELL ☒

GAS
WELL ☐

OTHER

2. Name of Operator

Maralo, Inc.

3. Address of Operator

P. O. Box 832, Midland, TX 79702

4. Well Location

Unit Letter G : 1980 Feet From The East Line and 1980 Feet From The North Line

Section 26 Township 17S Range 36E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

3827'

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ABANDONMENT ☒

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

2-3-93 PU & GIH w/ 158 jts tbq CIBP @ 10,010. Mix & circ 10# mud laden fluid. Jack Griffin, OCD on location.

2-4-93 POH w/ 2 7/8" tbq to 7512'. Load hole w/10# mud laden fluid. Mix & pump 25 sx Cl. "C" cement & displace w/43 bbls. 10# mud. RU WL. Set CIBP @ 4900' & dump 35' cement on top of plug. GIH w/ 2 7/8" tbq to 4800'. Load & circ hole w/10# mud laden fluid. Pull tbq up hole to 4500'.

2-5-93 Pump 25 sx Cl. "C" cement @ 4537'. Displace hole w/26 bbls 10# mud laden fluid. RU WL. GIH w/GL charge & cut csg @ 3137'. TOH w/76 jts 5 1/2" csg. GIH w/100 jts 2 7/8" tbq to 3172'. Pump 50 sx Cl. "C" cement plug @ csg stub 50' in & 50' out. Buddy Hill, OCD witnessed 1st plug.

2-8-93 GIH w/20 jts. 2 7/8" tbq. Tag csg stub plug @ 3078'. OCD rep ok'd. Pumped 50 sx plug @ 1504'. Displaced hole w/8.5 bbls 10# mud laden fluid. TOH in singles. Pumped 50 sx plug @ 450'. Displaced hole w/2.5 bbls 10# mud laden fluid. TOH in singles. Cut 13 3/8" + 8 5/8" wellheads off. Set 5 sx plug @ surface. Installed dry hole marker. Cut off dead men. Well P & A'd.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Dorothea Owens

TITLE

Agent

DATE

February 16, 1993

TYPE OR PRINT NAME

Dorothea Owens

TELEPHONE NO.

915 684-7441

(This space for State Use)

APPROVED BY

Farm M. Hill

TITLE

DATE

MAR 25 1993

CONDITIONS OF APPROVAL, IF ANY:

ATTACHMENT "G"

ATTACHMENT "G"

Form C-103
(Revised 3-55)

Page 2 of 7
NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

30-025-03950

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY Monsanto Chemical Company P. O. Box 492, Snyder, Texas
(Address)

LEASE State "G" WELL NO. 1 UNIT B S 26 T 17 R 36 E

DATE WORK PERFORMED 9-13-57 POOL Undesignated
Lea County, New Mexico

This is a Report of: (Check appropriate block) ☐ Results of Test of Casing Shut-off
☐ Beginning Drilling Operations ☐ Remedial Work
☒ Plugging ☒ Other Drill Stem Test

Detailed account of work done, nature and quantity of materials used and results obtained.
9-12-57 DST #3 8444 to 8298, Recovered 4050' Brackish Sulfur Water, PP 425#-1995#, SIP
(30 min.) 2225#.

9-13-57 Plugged and abandoned well - cement plugs as follows:

8162-8298 w/40 sxs., total depth 8298
6062-6190 w/40 sxs.
5175-5365 w/60 sxs.
4873-4923 w/20 sxs., bottom of 9-5/8" csg. @ 4898'.
729-779 w/30 sxs., Rec. 754' 9-5/8" csg. T/Salt @ 2130'
291-341 w/40 sxs., bottom of 13-3/8" csg. @ 316'
0-30 w/30 sxs.

A 4" pipe marker extending 4' above ground w/location description and name was placed in top of well.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. _____ TD _____ PBD _____ Prod. Int. _____ Compl Date _____
Tbng. Dia _____ Tbng Depth _____ Oil String Dia _____ Oil String Depth _____
Perf Interval (s) _____
Open Hole Interval _____ Producing Formation (s) _____

RESULTS OF WORKOVER:

BEFORE AFTER

Date of Test	_____	_____
Oil Production, bbls. per day	_____	_____
Gas Production, Mcf per day	_____	_____
Water Production, bbls. per day	_____	_____
Gas Oil Ratio, cu. ft. per bbl.	_____	_____
Gas Well Potential, Mcf per day	_____	_____

Witnessed by T. H. Foster, Prod. Foreman

Monsanto Chemical Company
(Company)

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of

30-025-20616

NUMBER OF COPIES RECEIVED	
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SANTA FE	
FILE	
U.S.S.	
LAND OFFICE	
TRANSFER	OIL GAS
PRODUCTION OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Campana Petroleum Company		Address P.O. Box 1652, Midland, Texas	
Lease Bumble - State	Well No. 1	Unit Letter I	Section 22
		Township 17-8	Range 36-E
Date Work Performed July 1, 1964	Pool Wildcat	County Lea	

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations
 ☐ Casing Test and Cement Job
 ☐ Other (Explain):
- ☒ Plugging
 ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

T. D. 5525 Dolomite.**Plugged and abandoned well as follows:**

Spotted 40 sack plug 5300 to T. D. across San Andres.
 Spotted 25 sack plug 3300 to 3400 across base of Salt.
 Spotted 25 sack plug 2000 to 2100 across top of Salt.
 Spotted 25 sack plug 250 to 350 in and out of surface casing.
 Spotted 10 sack plug at surface, installed proper dry hole marker.
 Spotted drilling mud between all plugs and back filled pits and cleaned up location.

This work was performed by Dowell, Hobbs New Mexico Office.

Witnessed by A. D. Bell		Position Partner		Company Campana Petroleum Company	
FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY					
ORIGINAL WELL DATA					
D F Elev.	T D	P B T D	Producing Interval	Completion Date	
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth		
Perforated Interval(s)					
Open Hole Interval			Producing Formation(s)		
RESULTS OF WORKOVER					
Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl
Before Workover					
After Workover					
OIL CONSERVATION COMMISSION			I hereby certify that the information given above is true and complete to the best of my knowledge.		
Approved by <i>A. D. Bell</i>			Name (A. D. Bell)		
Title			Position Partner		
Date			Company Campana Petroleum Company		

ATTACHMENT "G"

Page 3 of 7

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OPERATOR	

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

30-025-27108

Form C-103
Revised 10-1-

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO OPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5a. Indicate Type of Lease State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
2. Name of Operator Cotton Petroleum Corporation		5. State Oil & Gas Lease No. NM-5411-01
3. Address of Operator One Petroleum Center, Suite 201, Bldg. 6, Midland, Texas 79701		7. Unit Agreement Name NA
4. Location of Well UNIT LETTER P 660 FEET FROM THE South LINE AND 330 FEET FROM East T1E LINE, SECTION 23 TOWNSHIP 17-S RANGE 36-E		8. Farm or Lease Name Scharbauer State
15. Elevation (Show whether DF, RT, GR, etc.) 3814' GR		9. Well No. 1
		10. Field and Pool, or Wildcat Spencer (San Andres)
		12. County Lea

10. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- (1) Set CIBP @ 3180' and cap with 5 sxs.
- (2) Spot the following neat cement plugs: 1900'-2000' 20 sxs.; surface 10 sxs.
- (3) Erect P&A Marker, clear and level location.

THIS WELL WAS PLUGGED ON MAY 1, 1982.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED [Signature] TITLE Production Engineer DATE June 15, 1982

APPROVED BY [Signature] TITLE OIL & GAS INSPECTOR DATE NOV 3 1982

CONDITIONS OF APPROVAL, IF ANY:

ATTACHMENT "G"

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

30-025-20775

RE - ENTRY

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.

1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER-	5a. Indicate Type of Lease: State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
2. Name of Operator TEXAS CRUDE, INC.,	5. State Oil & Gas Lease No. LG-498
3. Address of Operator 508 Wall Towers East, Midland, Texas 79701	7. Unit Agreement Name
4. Location of Well UNIT LETTER <u>D</u> <u>660</u> FEET FROM THE <u>North</u> LINE AND <u>660</u> FEET FROM <u>West</u> LINE, SECTION <u>25</u> TOWNSHIP <u>17 S</u> RANGE <u>36 E</u> N.M.P.M.	8. Farm or Lease Name C.W. Trainer "25" State
	9. Well No. One
	10. Field and Pool, or Wildcat Wildcat
15. Elevation (Show whether DF, RT, GR, etc.) 3805.55' GR	12. County LEA

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐
OTHER ☐

PLUG AND ABANDON ☐
CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐
COMMENCE DRILLING OPNS. ☐
CASING TEST AND CEMENT JOB ☐
OTHER Re-Entry of Permzoil United - State ☐
25 Well #1 (drilled in 1964, P&A 3-23-72)

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

12-1-72 - The following procedure was approved by OCC Office in Hobbs, N.M., before work was done: Cleaned out to 7226' - Straddle Tested from 6845-7010 and 6645-6845. No Oil or Gas recovered. Spotted the following cement plugs:
40 sacks from 6600-6455; 40 sacks from 5600-5465; 40 sacks in bottom of 8 5/8" 4790-4655.
Pulled 8 5/8" casing from approximately 1020', set 50 sacks from 1050-950'; 50 sacks in bottom of 13 3/8" from 340-240; 10 sack plug in top of 13 3/8" casing.
Welded plat in top of 13 3/8" casing.
Erected dry hole marker.
Work completed 12-1-72

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED [Signature] TITLE Dist. Supt DATE 12-1-72

APPROVED BY [Signature] TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

ATTACHMENT "G"

Page 5 of 7

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL API NO.

30-025-30110

5. Indicate Type of Lease

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.

V-1687

7. Lease Name or Unit Agreement Name

Marathon State

8. Well No.

1

9. Pool name or Wildcat

Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM G-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL
WELL ☒

GAS
WELL ☐

OTHER

Re-entry

2. Name of Operator

Tom Schneider

3. Address of Operator

505 N Big Spring St., Suite 204 Energy Sq. Midland, TX

4. Well Location

Unit Letter B : 1300 Feet From The North Line and 1980 Feet From The East Line

Section 27

Township 17-S

Range 36-E

NMPM

Lea

County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

3835.8 GL

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

REMEDIAL WORK ☐

ALTERING CASING ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ABANDONMENT ☒

PULL OR ALTER CASING ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

6/25/90...Laid down rods and pump. Pumped 25 sx. of C cement at 5169 feet.
Pulled up and WOC.

6/26/90...Trip into hole with tubing and tagged plug at 4,936. Circulated
hole and mixed mud. Pumped 25 sx. of C cement at 4,530. Cut and pulled 2,994
feet of 5 1/2" casing. Trip into hole, circulate and mix mud, pumped 40 sx.
of C cement at 3,050 feet. SIFN.

6/27/90...Trip into hole with tubing and tagged plug at 2,945 feet.
Pulled to surface and set 10 sx. of C cement at Surface.

Ray Smith with Commission witness all operations. Cementing by Triple
"N" Services, Inc. Midland, Texas.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Thomas Schneider

TITLE

operator representative

DATE

7/17/90

TYPE OR PRINT NAME

Thomas Schneider

TELEPHONE NO.

(915) 682-6340

(This space for State Use)

APPROVED BY

John D. Howard

TITLE

OIL & GAS

DATE

FFH 6/1/90

CONDITIONS OF APPROVAL, IF ANY.

ATTACHMENT "G"

30-025-30110

Form C-103
Revised 10-1-79

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LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No. V-1687
7. Unit Agreement Name Arkansas Junction Voluntary WI Unit
8. Form of Lease Name Marathon State V-1687
9. Well No. 1
13. Field and Pool, or Wellcat Wildcat
12. County Lea

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO CEMENT OR PLUG BACK TO A DIFFERENT RESERVOIR.
USE "APPLICATION FOR PERMIT TO DRILL" (FORM C-101) FOR SUCH PROPOSALS.)

1. Name of Operator Marathon Oil Company	2. Address of Operator P.O. Box 552 Midland, Texas 79702
3. Location of Well UNIT LETTER B 1300 1330 FEET FROM THE North LINE AND 1980 FEET FROM East	4. Township and Range TOWNSHIP 17-S RANGE 36-E

16. Elevation (Show whether DF, ST, GP, etc.) 3835.6' GL

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PERMIT <input type="checkbox"/>	COMMENCE DRILLING OPER. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Verbal approval received from Jerry Sexton for P & A procedure on 12-31-87.

1-1-88: RIH open-ended. Set Plug #1 from 12,355'-12,255' w/50 sxs Class "H" Neat, Set Plug #2 from 11,910'-11,777' w/50 sxs Class "H" Neat, Set Plug #3 from 10,270'-10,162' w/50 sxs Class "H", Set Plug #4 from 7100'-6992' w/50 sxs Class "H" Neat, Set Plug #5 from 5285'-5045' w/100 sxs Class "H" Neat, Set Plug #6 from 4525'-4387' w/50 sxs Class "H" Neat, Set Plug #7 from 2070'-1932' w/50 sxs Class "H" Neat, & Plug #8 from 30'-0' w/20 sxs Class "H" Neat.

1-2-88 ND BOPE & install dry-hole marker.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED <u>Jerry D. Lucas</u>	TITLE <u>Dist. Drlg Superintendent</u>	DATE <u>1-7-88</u>
APPROVED BY <u>[Signature]</u>	TITLE <u>OIL & GAS INSPECTOR</u>	DATE <u>OCT 16 1988</u>
CONDITIONS OF APPROVAL, IF ANY:		

ATTACHMENT "G"

Page 7 of 7

TECHNI-HIB™ 606 Corrosion Inhibitor

CHEMICAL

Product Information

PRODUCTS
AND
SERVICES

Description

TECHNI-HIB 606 corrosion inhibitor is a water-soluble combination of a cationic filming corrosion inhibitor and sulfite-based oxygen scavenger.

Uses

TECHNI-HIB 606 corrosion inhibitor has been developed for use as a packer fluid inhibitor, hydrostatic test inhibitor and general purpose filming corrosion inhibitor for water injection systems, water disposal operations, power water pumping systems and high water/oil ratio producing oil wells where a small amount of oxygen is present.

Application

TECHNI-HIB 606 corrosion inhibitor can be injected continuously into a system at a rate of 60 to 120 ppm (1 to 2 quarts per 100 barrels of water). When used as a packer fluid inhibitor, 2500 to 5000 ppm (10 to 20 gallons per 100 barrels of water) is required. When used as a hydrostatic test fluid inhibitor, TECHNI-HIB 606 corrosion inhibitor injected at a rate of 500 to 3500 ppm is typically recommended dependent on conditions.

Technical Data

Specific Gravity @ 60°F	0.991 - 1.027
Pounds Per Gallon @ 60°F	8.26 - 8.56
Freeze Point	-5°F
Flash Point(TCC)	98°F
pH	6 - 6.5
Appearance	Dark Brown Liquid

SOLUBILITIES:

Fresh Water	Soluble
2% Brine	Soluble
15% Brine	Soluble
Crude Oil	Insoluble

Safety Precautions

WARNING! FLAMMABLE. Keep away from heat, sparks, and open flame. Keep container closed when not in use. Do not breathe vapors, use with adequate ventilation. Avoid contact with eyes, skin, and clothing.

References

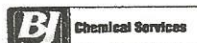
TECHNI-HIB 606 corrosion inhibitor is available in 55-gallon drums and bulk quantities. Refer to Material Safety Data Sheet for additional information and first aid.

ATTACHMENT "H"

Page 1 of 5

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January 12, 2005



MATERIAL SAFETY DATA SHEET

Product Name: Techni-Hib 606

Page 1

BJ CHEMICAL SERVICES MATERIAL SAFETY DATA SHEET



Section: 01 PRODUCT IDENTIFICATION

BJ CHEMICAL SERVICES	Emergency Telephone	CHEMTREC (800) 424-9300
707 N. LEECH	Previous Version Date	5/20/03
HOBBS, NM 88241-1499	Date Prepared	10/30/03
TELEPHONE: (575) 393-7751	Version: 0000009	
Product Name: TECHNI-HIB 606		
Trade Name: Packer Fluid Inhibitor		
Chemical Description:		
Combination oxygen scavenger/corrosion inhibitor		

Section: 02 HAZARDOUS INGREDIENTS

Component Name	CAS#	% Range
methanol	000067-56-1	< 15%
isopropyl alcohol	000067-63-0	< 10%
ammonium bisulfite	010192-30-0	< 10%

Section: 03 PHYSICAL DATA

Freezing Point: - 5 Deg.F. pH: 6 - 6.5
Boiling Point, 760 mm Hg: approx. 200 Deg.F.
Specific Gravity(H₂O=1) : 1.009 Solubility in water: Soluble
Appearance and Odor: Dark brown liquid; pungent odor.

Section: 04 FIRE AND EXPLOSION HAZARD DATA

Flash Point (Test Method): 98 Deg.F TCC
Extinguishing Media
CO₂, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire.
Contain fire fighting liquids for proper disposal.
Special Fire Fighting Procedures
Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.
Unusual Fire and Explosion Hazards
This material is volatile and readily gives off vapors that may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Containers may explode from internal pressure if confined to fire. Keep containers cool. Keep unnecessary people away.

Section: 05 HEALTH HAZARD DATA

Effects of Overexposure

Eye Contact: causes moderate to severe conjunctival irritation, (including burning sensation, tearing, redness or swelling), corneal injury and iritis. Corneal injury may be marked, extensive, and if not promptly treated, may possibly lead to permanent impairment of vision.

Skin Contact: causes local redness, swelling and chemical burns. May cause immediate skin irritation, blistering and/or dermatitis in some individuals. Prolonged or widespread exposure may result in the absorption of potentially harmful amounts of material.

Inhalation: vapors are irritating and may cause excessive tear formation, intoxication, burning sensation of the nose

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and throat, coughing, wheezing, shortness of breath, nausea, vomiting, headache, dizziness, narcosis, unconsciousness, cardiac depression or coma. May also cause symptoms of lack of oxygen leading to collapse and possible death. Extremely high vapor concentrations may cause lung damage. Some individuals may develop asthma. Repeated exposure may cause liver and kidney injury.

Ingestion: may cause blindness, narcosis, nausea, vomiting, throat and abdominal pain, acidosis, diarrhea, dizziness, weakness, thirst, collapse and possible coma or death. The nature and severity of these signs and symptoms will be dependent on the amount swallowed.

Additional Information: methanol is a component of this product. It can be highly toxic, even lethal, in inhalation exposures, but most of the literature on methanol poisoning deals with accidental or intentional ingestions. There are three stages of toxicity from acute exposures (either by inhalation or ingestion) to methanol: (1) a rapid narcotic effect involving drowsiness or fatigue with mild irritation of the eyes and mucous membranes, (2) a latent period of 10-15 hours, followed by (3) more severe CNS effects including nausea, vomiting, dizziness, headache, failing eyesight, visual disturbances, metabolic acidosis, and deep respiration. The last stage is thought to be due to the formation of toxic metabolite(s) of methanol. Permanent toxic effects can be produced from a single exposure. The effects include damage to both central and motor nerves and blindness due to damage to the optic nerve. Other symptoms to exposure to methanol include roaring in the ears, insomnia, rapid eye movements, tremor, dizziness, loss of coordination, dilated pupils, itching of the skin, skin irritation, and dermatitis caused by removal of skin oils. As little as 15mL can cause blindness and 30-250mL can be fatal. Methanol can be absorbed through the skin in toxic amounts. Since it is eliminated slowly from the body, it can have cumulative toxic effects from daily exposures. Subacute ingestion of methanol has caused liver damage in laboratory animals. It has shown to be a teratogen and a fetotoxin in tests on laboratory animals. It has shown some genetic effects in laboratory tests.

Target Organs: eyes, skin, lungs, CNS, liver and kidneys.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

Section: 06 REACTIVITY DATA

Stable (Y=Yes/N=No): Y

Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Avoid contact with strong oxidizing agents, strong alkalies, and strong mineral acids.

Hazardous Decomposition Products

Smoke, carbon dioxide, carbon monoxide, oxides of nitrogen.

Hazardous Polymerization May Occur (Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

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Section: 07 SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled

Eliminate sources of ignition. Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled materials with sand or earth. Recover undamaged and minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S. EPA and/or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271). If product requires disposal, ignitability (D001) would be applicable.

Section: 08 SPECIAL PROTECTIVE INFORMATION

Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure organic vapor type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

Section: 09 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist. Keep away from heat, sparks, and open flames and never use a cutting torch on or near container (even empty) or explosion may result. Vapors may travel to areas away from the work site and ignite.

Other Precautions

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.

FOR INDUSTRIAL USE ONLY

Section: 10 REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III
Section 302/304-Extremely Hazardous Substances (40 CFR 355)

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SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

Component Name	RQ	TPQ	% Range
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***NONE**

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

X Acute Health Hazard	Sudden Release of Pressure	X Fire
X Chronic Health Hazard	Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

Component Name	CAS #	% Range
methanol	000067-56-1	< 15%

CERCLA, 40 CFR 261 AND 302.

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

Component Name	CAS #	CERCLA RQ
methanol	000067-56-1	5000
ammonium bisulfite	010192-30-0	5000

OSHA Exposure Limits

Component Name

methanol	TWA ppm: 200.0	TWA MG/M3: 260.0	STEL ppm: 250.0	STEL MG/M3: 325.0	Skin: X
isopropyl alcohol	TWA ppm: 400.0	TWA MG/M3: 980.0	STEL ppm: 500.0	STEL MG/M3: 1225.0	

National Fire Protection Agency

2 Health	3 Fire
0 Reactive	Other

Department of Transportation Shipping Information

Proper Shipping Name: Flammable liquids, n.o.s.

Hazard Class: 3

Identification: UN1993

Packaging Group: PG III

Contains: methanol, isopropyl alcohol

Hazardous Substance RQ: 33333#

Emergency Response Guide Number: 128

Labels: Flammable liquid

Toxic Substances Control Act (TSCA), 40 CFR 261

This product, or components if product is a mixture, is/are listed on the Toxic Substances Control Act (TSCA) inventory.

Section 10 information is to remain attached to the material safety data sheet for this product.

While BJ CHEMICAL SERVICES believes that the above data is correct, BJ CHEMICAL SERVICES expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.

END OF MSDS

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