

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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.)		WELL API NO. 30-015-43897
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator LIME ROCK RESOURCES II-A, L.P.		6. State Oil & Gas Lease No.
3. Address of Operator c/o Mike Pippin LLC, 3104 N. Sullivan, Farmington, NM 87401		7. Lease Name or Unit Agreement Name LEAVITT 13
4. Well Location Unit Letter <u>D</u> : <u>660</u> feet from the <u>NORTH</u> line and <u>500</u> feet from the <u>WEST</u> line Section <u>18</u> Township <u>18-S</u> Range <u>27-E</u> NMPM <u>Eddy</u> County		8. Well Number #2H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3288' GL		9. OGRID Number 277558
		10. Pool name or Wildcat Red Lake, Glorieta-Yeso (51120)

12. 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 checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input checked="" type="checkbox"/>			
OTHER: Change Location & Drilling Plan on APD <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work).
SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Lime Rock would like to change the surface location, bottom hole location, and drilling plan in this well's approved APD. See the attached new C-102, it's supporting data, & new drilling plan.

RECEIVED

JUN 19 2018

Spud Date: _____ Drilling Rig Release Date: _____ DISTRICT II-ARTESIA O.C.D.

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

SIGNATURE Mike Pippin TITLE Petroleum Engineer - Agent DATE 6/18/18

Type or print name Mike Pippin E-mail address: mike@pippinllc.com PHONE: 505-327-4573
For State Use Only

APPROVED BY: Raymond R. Rodary TITLE Geologist DATE 6-20-18
Conditions of Approval (if any): _____

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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811 S First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
DISTRICT II-ARTESIA O.C.D. ☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-43897	Pool Code 51120	Pool Name Red Lake, Gloriam - Yego
Property Code 316765	Property Name LEAVITT 13	Well Number 2H
OGRID No. 277558	Operator Name LIME ROCK RESOURCES II-A, L.P.	Elevation 3287.5

Surface Location

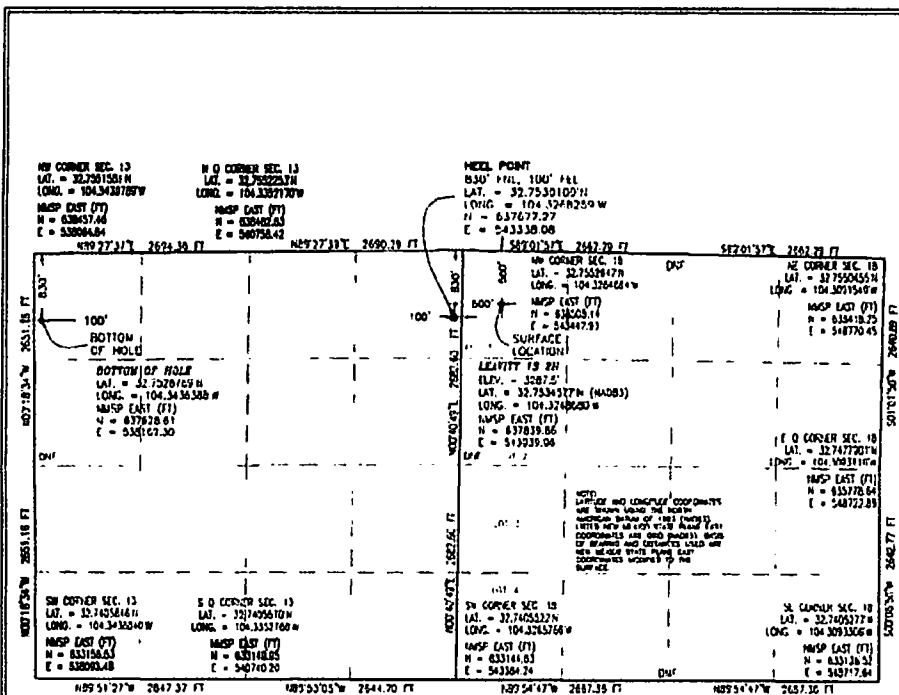
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	18	18 S	27 E		660	NORTH	500	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	13	18 S	26 E		830	NORTH	100	WEST	EDDY

Dedicated Acres 160.89	Joint or Infill	Consolidation Code	Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or in a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Eric McCluskey* Date: **6/7/18**

Printed Name: **Eric McCluskey**

E-mail Address: **Emccluskey@limerockresources.com**

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Signature and Seal of Surveyor: *Simon F. Jaramillo*
Date of Survey: **MAY 18, 2018**

Signature and Seal of Professional Surveyor: *Simon F. Jaramillo*

Certificate Number: **FLIMON F. JARAMILLO, PLS 12797**

SURVEY NO. 48178

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
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1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
Revised July 18, 2013

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED Report

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Lime Rock Resources II-A, L, P 1111 Bagby Street, Suite 4600 Houston, Texas 77002		OGRID Number 277558
		API Number 30-015-43897
Property Code 316765	Property Name Leavitt 13	Well No. #2H

7 Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	18	18S	27E		660	N	500	W	Eddy

8 Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	13	18S	26E		830	N	100	W	Eddy

9 Pool Information

Red Lake Glorieta-Yeso	3250
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Additional Well Information

Work Type N	Well Type O	Cable/Rotary R	Lease Type P	Ground Level Elevation 3287.5
Multiple N	Proposed Depth 8000' MD / 2705' TVD	Formation Yeso	Contractor Trinidad Drilling	Spud Date After 8/1/2018
Depth to Ground Water: 80 Ft		Distance from nearest fresh water well: 0.38 Miles		Distance from nearest surface water: 0.63 Miles

☒ We will be using a closed-loop system in lieu of lined pits

19 Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Conductor	26"	20"	91.5	80	80	Surface
Surface	12.25"	9-5/8"	36	1230	600	Surface
Production	8 3/4"	5-1/2"	20	8000	2300	Surface

Casing/Cement Program: Additional Comments

Artesian Aquifer Porosity 1160'-1170'

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
XLT 11"	5000	2000	National Varco

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

I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC 0, if applicable. ☒

Signature: *Eric McClusky*

Printed Name: Eric McClusky

Title: Operations Engineer

E-mail Address: emcclusky@limerockresources.com

Date: 6/11/2018

Phone: 713-360-5714

OIL CONSERVATION DIVISION

Approved By:

Title:

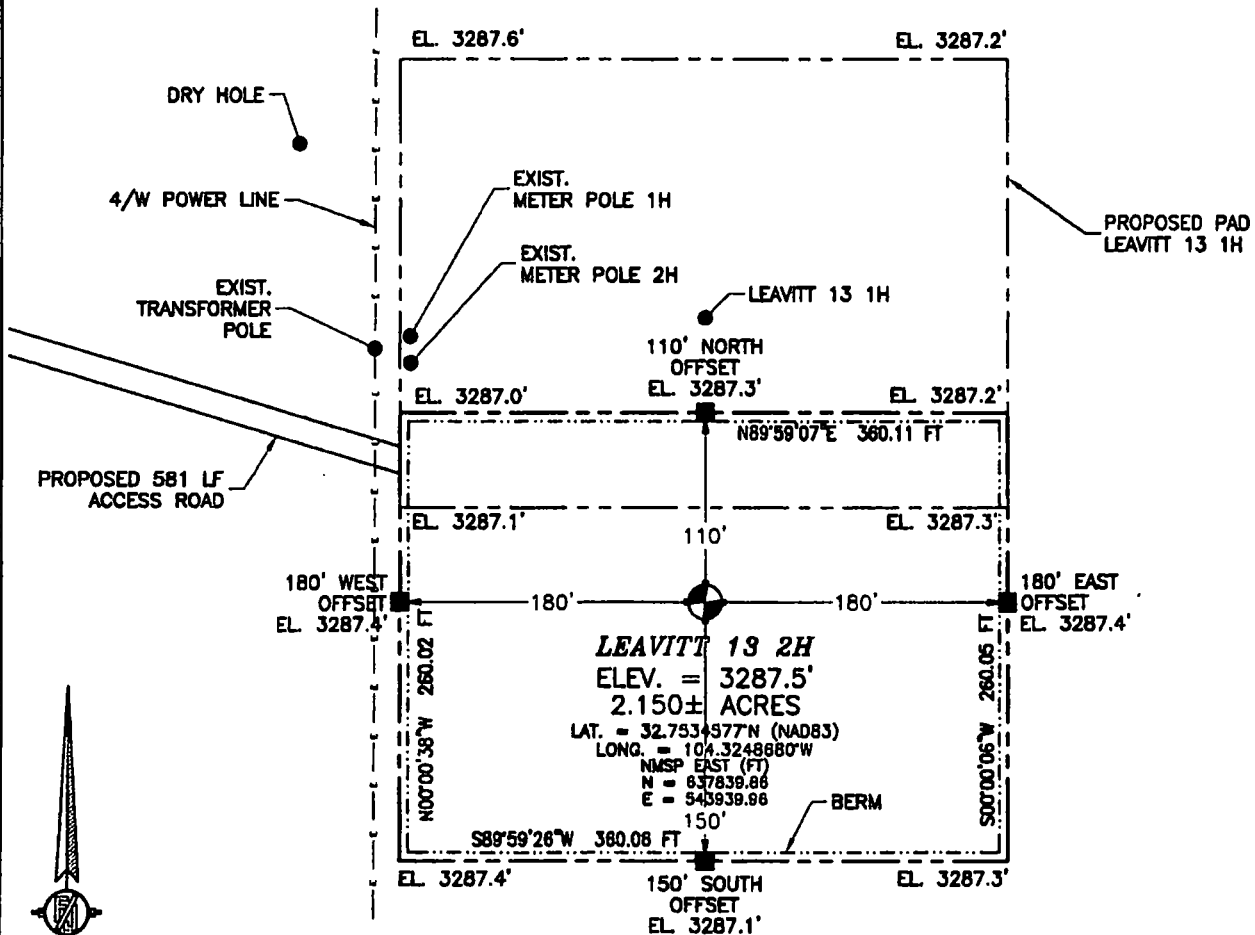
Approved Date:

Expiration Date:

Conditions of Approval Attached

**SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP**

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM CR 39 (FOUR DINKLIS) AND CR 44 (FANNING) AND CALICHE LEASE ROAD GO EAST ON CALICHE LEASE ROAD 1.06 MILES, BEND LEFT AND GO NORTHEAST 817', TURN RIGHT AND GO SOUTH 477' TO EXISTING HIGGINS TRUST 13A 2 PAD. FROM THE SOUTHEAST PAD CORNER FOLLOW PROPOSED ROAD SURVEY FLAGS SOUTHEAST 581' TO THE NORTHWEST PAD CORNER FOR THIS LOCATION.

---DCP BPL---

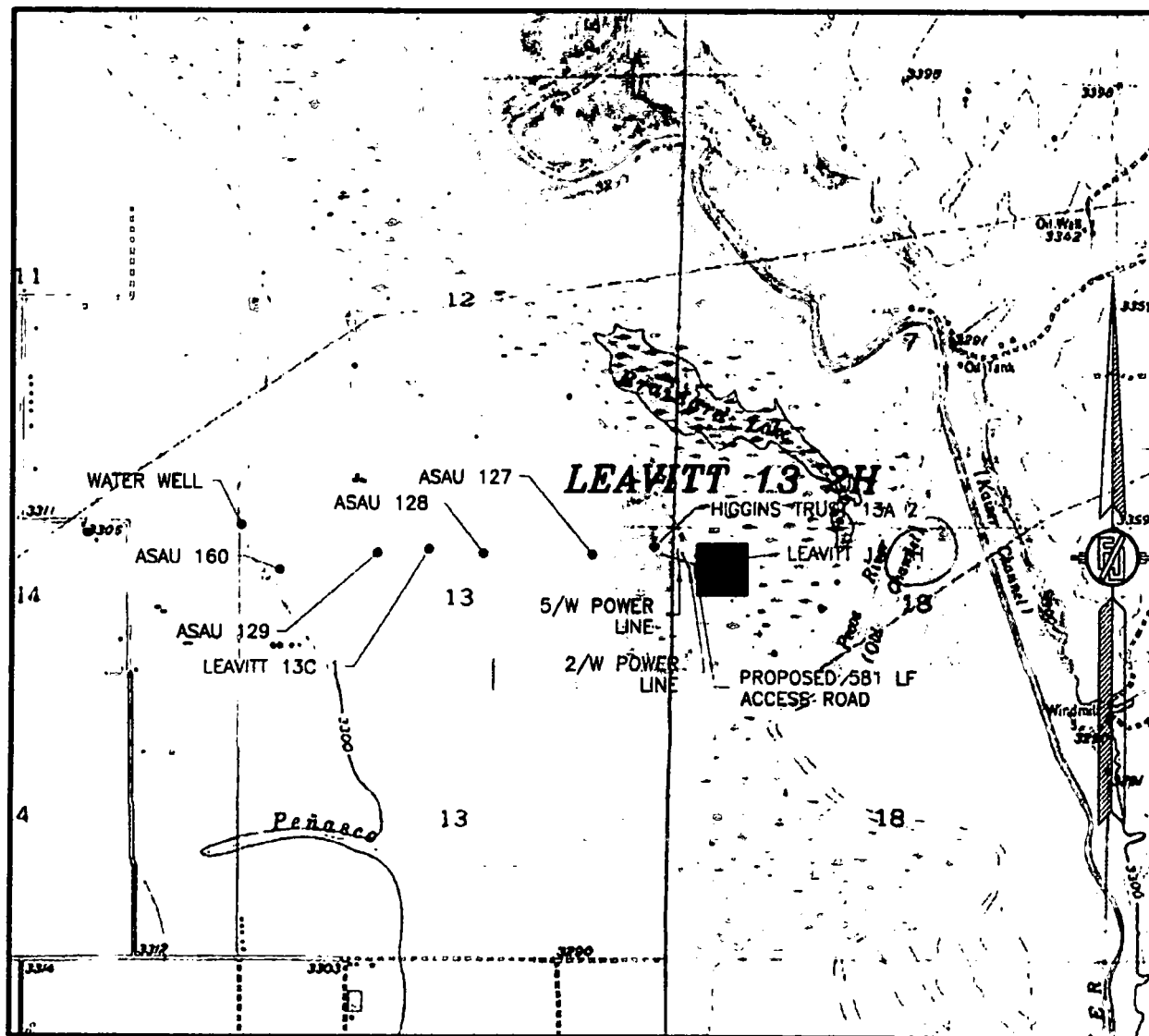
**LIME ROCK RESOURCES II-A, L.P.
LEAVITT 13 2H
LOCATED 660 FT. FROM THE NORTH LINE
AND 500 FT. FROM THE WEST LINE OF
SECTION 18, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO**

MAY 18, 2018

SURVEY NO. 4817B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 **CARLSBAD, NEW MEXICO**

SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 SPRING LAKE

NOT TO SCALE

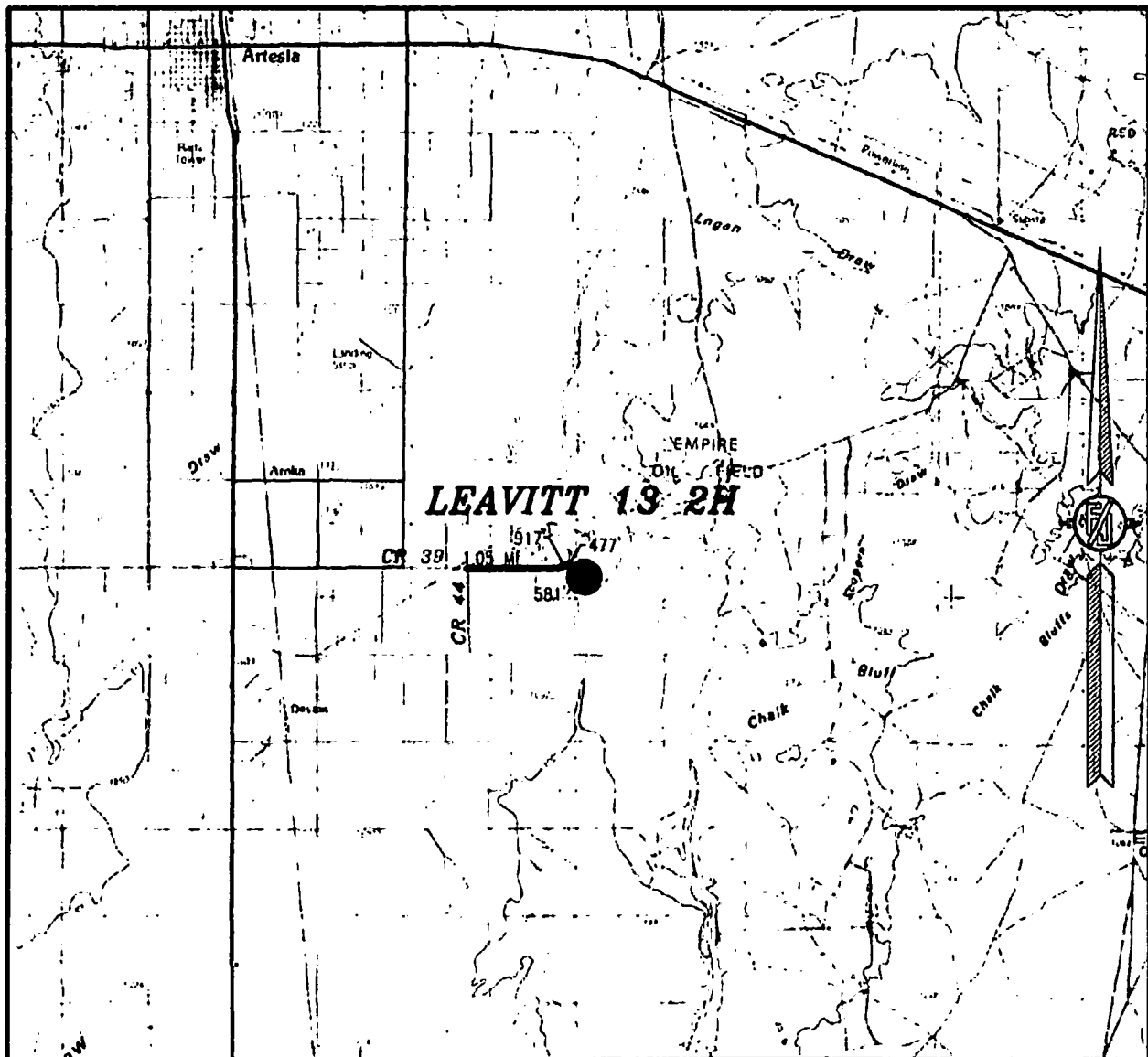
LIME ROCK RESOURCES II-A, L.P.
 LEAVITT 13 2H

LOCATED 660 FT. FROM THE NORTH LINE
 AND 500 FT. FROM THE WEST LINE OF
 SECTION 18, TOWNSHIP 18 SOUTH,
 RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

MAY 18, 2018

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO SURVEY NO. 4817B

SECTION 18, TOWNSHIP 18 SOUTH, RANCE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM CR 39 (FOUR DINKUS) AND CR 44 (FANNING) AND CALICHE LEASE ROAD GO EAST ON CALICHE LEASE ROAD 1.08 MILES, BEND LEFT AND GO NORTHEAST 917', TURN RIGHT AND GO SOUTH 477' TO EXISTING HIGGINS TRUST 13A 2 PAD, FROM THE SOUTHEAST PAD CORNER FOLLOW PROPOSED ROAD SURVEY FLAGS SOUTHEAST 581' TO THE NORTHWEST PAD CORNER FOR THIS LOCATION.

**LIME ROCK RESOURCES II-A, L.P.
LEAVITT 13 2H**

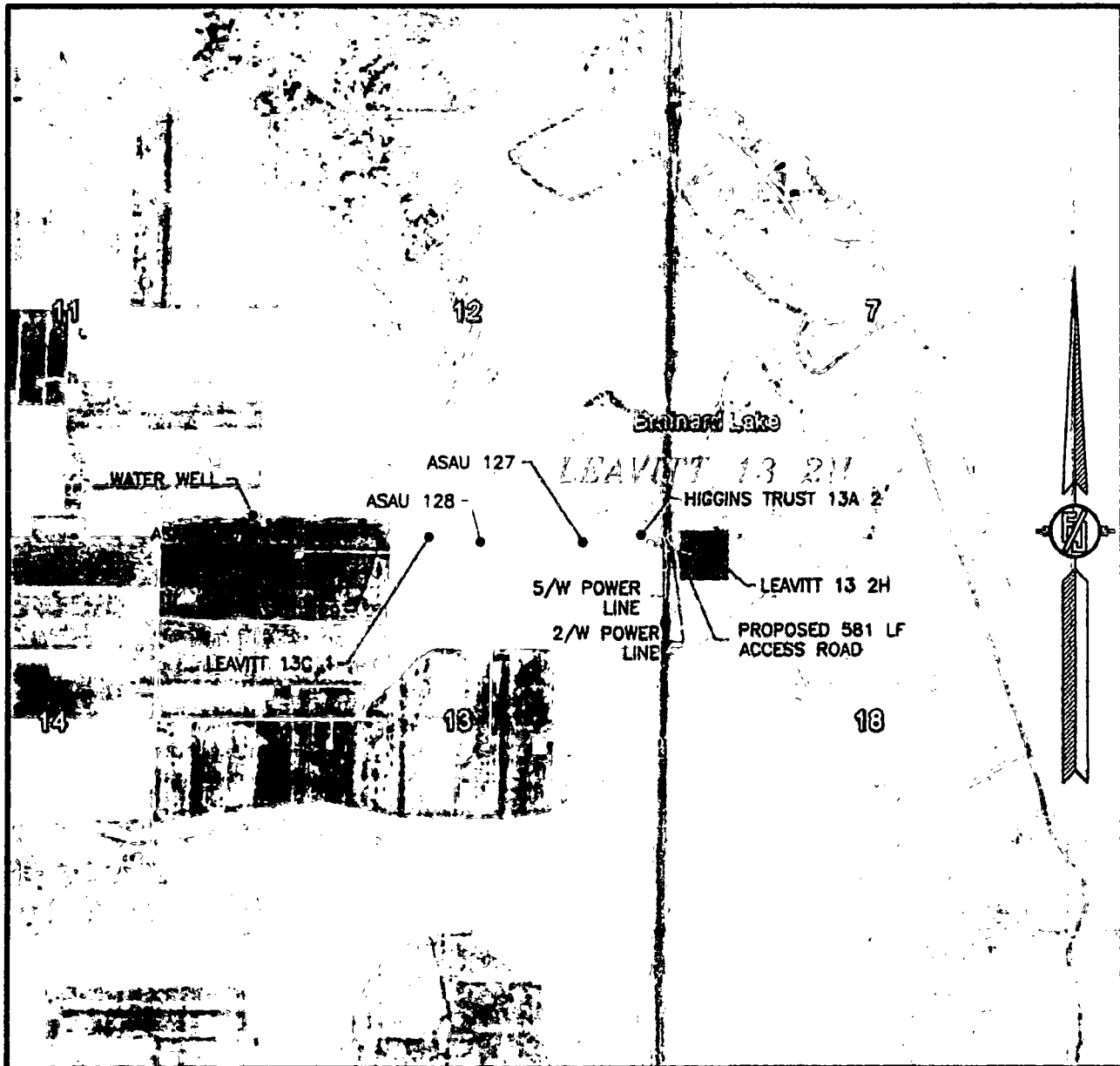
**LOCATED 660 FT. FROM THE NORTH LINE
AND 500 FT. FROM THE WEST LINE OF
SECTION 18, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO**

MAY 18, 2018

SURVEY NO. 4817B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 AERIAL PHOTO



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 MARCH 2018

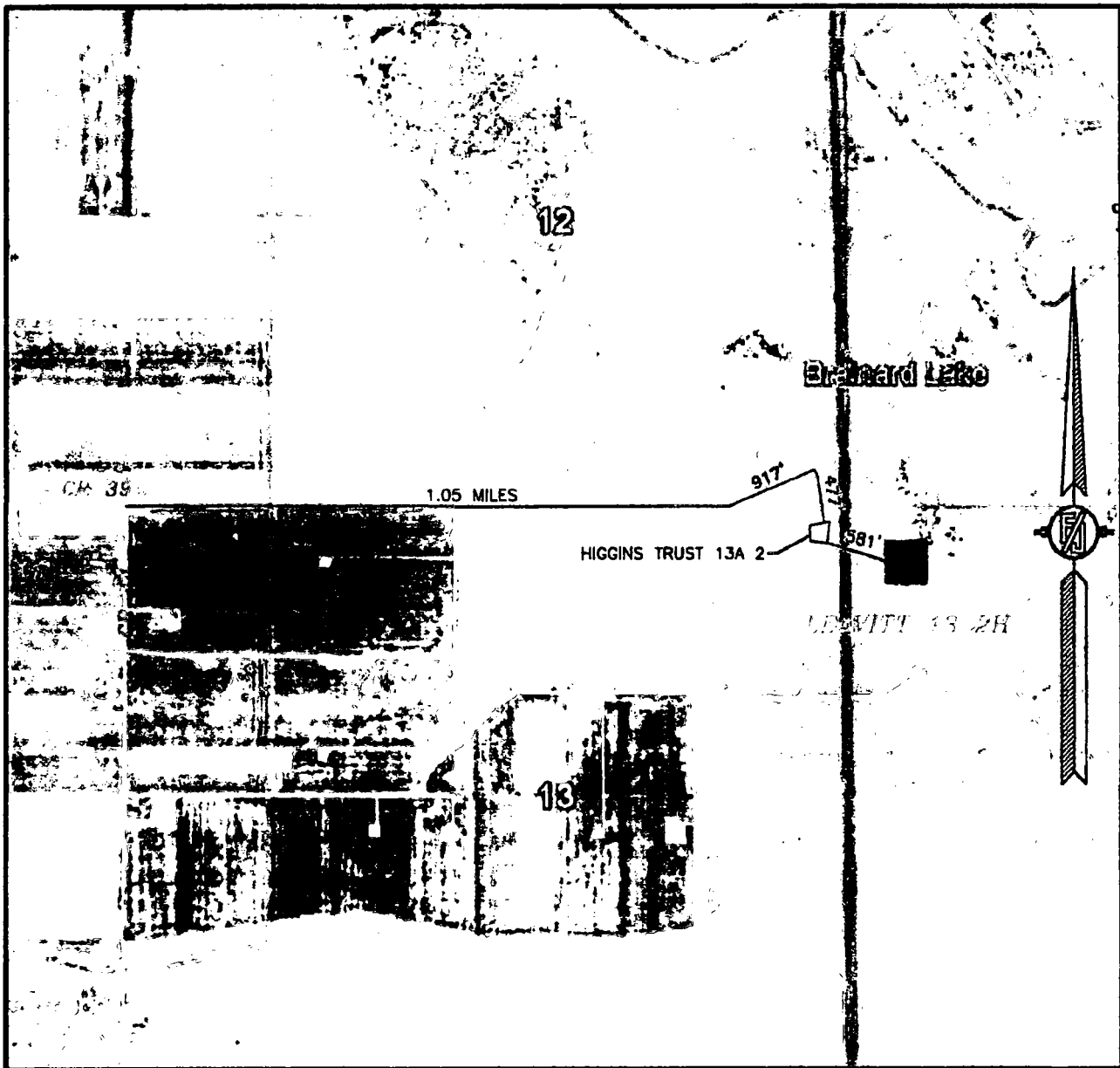
LIME ROCK RESOURCES II-A, L.P.
 LEAVITT 13 2H
 LOCATED 660 FT. FROM THE NORTH LINE
 AND 500 FT. FROM THE WEST LINE OF
 SECTION 18, TOWNSHIP 18 SOUTH,
 RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

MAY 18, 2018

SURVEY NO. 4817B

MADRON SURVEYING, INC. (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2018

LIME ROCK RESOURCES II-A, L.P.
LEAVITT 13 2H

LOCATED 660 FT. FROM THE NORTH LINE
AND 500 FT. FROM THE WEST LINE OF
SECTION 18, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 18, 2018

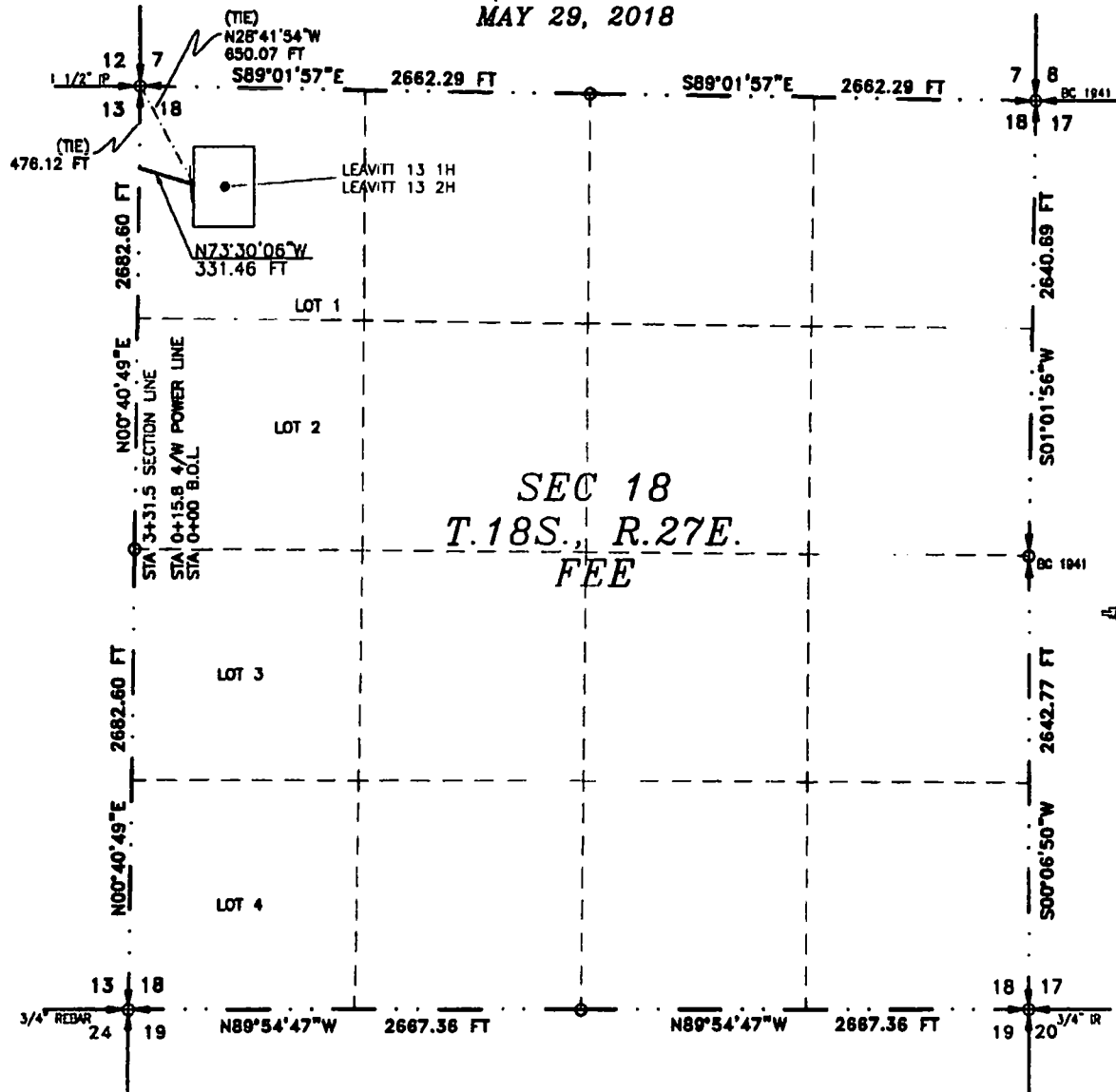
SURVEY NO. 4817B

MADRON SURVEYING, INC. 301 SOUTH CAROL
(375) 234-1341 CARLSBAD, NEW MEXICO

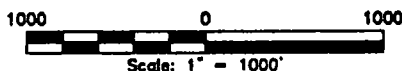
FLOWLINE PLAT

TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE WOR SECTION 13 MAIN FACILITY

LIME ROCK RESOURCES II-A, L.P. CENTERLINE SURVEY OF A PIPELINE CROSSING SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO MAY 29, 2018



SEE NEXT SHEET (2-8) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-8

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 **CARLSBAD, NEW MEXICO**

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12787, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, THIS 12TH DAY OF JUNE 2018

FILIMON F. JARAMILLO, RLS 12787

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 4817A

FLOWLINE PLAT
TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE
WOR SECTION 13 MAIN FACILITY

LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 29, 2018

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE LAND IN SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN LOT 1 OF SAID SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M., WHENCE THE NORTHWEST CORNER OF SAID SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS N28°41'54"W, A DISTANCE OF 850.07 FEET; THENCE N73°30'06"W A DISTANCE OF 331.48 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHWEST CORNER OF SAID SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS N00°40'49"E, A DISTANCE OF 476.12 FEET;

SAID STRIP OF LAND BEING 331.48 FEET OR 20.09 RODS IN LENGTH, CONTAINING 0.228 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 1 331.48 L.F. 20.09 RODS 0.228 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12787, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, THIS 29 DAY OF JUNE 2018

FILIMON F. JARAMILLO PLS. 12787

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 4817A

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

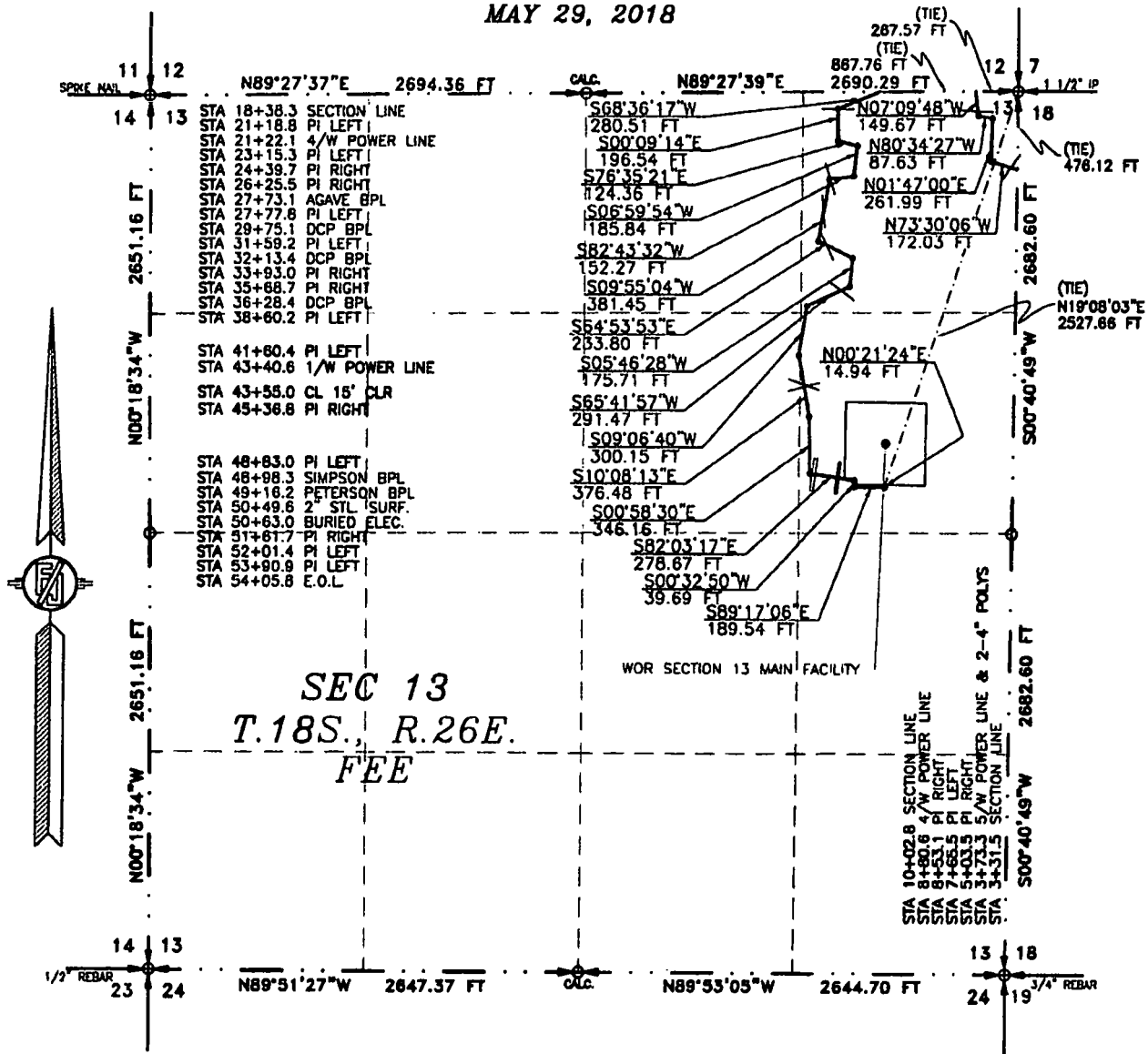
SHEET: 2-8

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

FLOWLINE PLAT

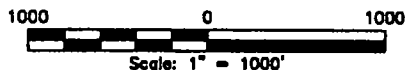
TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE WOR SECTION 13 MAIN FACILITY

LIME ROCK RESOURCES II-A, L.P. CENTERLINE SURVEY OF A PIPELINE CROSSING SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO MAY 29, 2018



SEC 13
T.18S., R.26E.
FEE

SEE NEXT SHEET (4-8) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 3-8

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS DAY OF JUNE 2018

FILIMON F. JARAMILLO, S. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 4817A

FLOWLINE PLAT

TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE
WOR SECTION 13 MAIN FACILITY

LIME ROCK RESOURCES II-A, L.P. CENTERLINE SURVEY OF A PIPELINE CROSSING SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO MAY 29, 2018

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE LAND IN SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

FROM SECTION 18 TO SECTION 12

BEGINNING AT A POINT WITHIN THE NE/4 NE/4 OF SAID SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M., WHENCE THE NORTHEAST CORNER OF SAID SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N00°40'49"E, A DISTANCE OF 476.12 FEET;
THENCE N73°30'06"W A DISTANCE OF 172.03 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N01°47'00"E A DISTANCE OF 261.99 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N80°34'27"W A DISTANCE OF 87.63 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N07°09'48"W A DISTANCE OF 149.87 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N89°27'39"E, A DISTANCE OF 267.57 FEET;

SAID STRIP OF LAND BEING 671.32 FEET OR 40.69 RODS IN LENGTH, CONTAINING 0.462 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NE/4 671.32 L.F. 40.69 RODS 0.462 ACRES

FROM SECTION 12 TO E.O.L.

BEGINNING AT A POINT WITHIN THE NE/4 NE/4 OF SAID SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M., WHENCE THE NORTHEAST CORNER OF SAID SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N89°27'39"E, A DISTANCE OF 867.76 FEET;

THENCE S88°36'17"W A DISTANCE OF 280.51 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S00°09'14"E A DISTANCE OF 196.54 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S76°35'21"E A DISTANCE OF 124.36 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S06°59'54"W A DISTANCE OF 185.84 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S82°43'32"W A DISTANCE OF 152.27 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S09°55'04"W A DISTANCE OF 381.45 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S84°53'53"E A DISTANCE OF 233.80 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S05°46'28"W A DISTANCE OF 175.71 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S85°41'57"W A DISTANCE OF 291.47 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S09°08'40"W A DISTANCE OF 300.15 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S10°08'13"E A DISTANCE OF 376.48 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S00°58'30"E A DISTANCE OF 346.18 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S82°03'17"E A DISTANCE OF 278.67 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S00°32'50"W A DISTANCE OF 39.69 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°17'08"E A DISTANCE OF 189.54 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°21'24"E A DISTANCE OF 14.94 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N19°08'03"E, A DISTANCE OF 2527.66 FEET;

SAID STRIP OF LAND BEING 3567.58 FEET OR 216.22 RODS IN LENGTH, CONTAINING 2.457 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NE/4 2082.91 L.F. 125.02 RODS 1.421 ACRES
SE/4 NE/4 1400.44 L.F. 84.88 RODS 0.964 ACRES
SW/4 NE/4 104.23 L.F. 6.32 RODS 0.072 ACRES

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 27th DAY OF JUNE 2018

FILMON F. JARAMILLO, PLS 12797

MADRON SURVEYING, INC
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 4817A

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

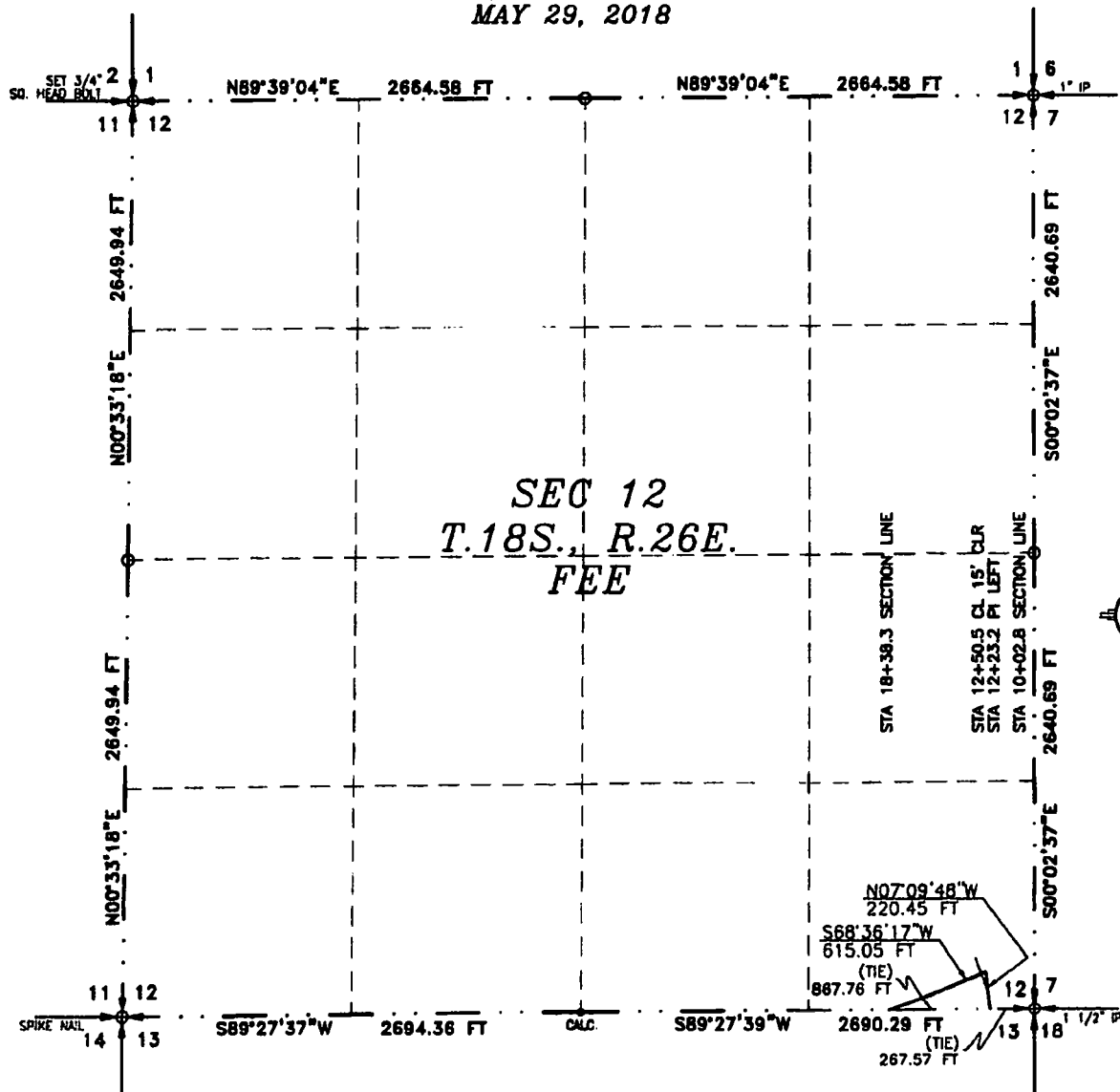
SHEET: 4-8

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

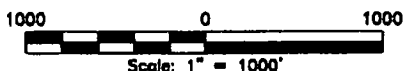
FLOWLINE PLAT

TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE WOR SECTION 13 MAIN FACILITY

LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 29, 2018



SEE NEXT SHEET (6-8) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 5-8

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12787, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 29 DAY OF JUNE 2018.

FILMON F. JARAMILLO, PLS. #12787

MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

SURVEY NO. 4817A

FLOWLINE PLAT

**TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE
WOR SECTION 13 MAIN FACILITY**

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 29, 2018**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE LAND IN SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 SE/4 OF SAID SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M., WHENCE THE SOUTHEAST CORNER OF SAID SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N89°27'39"E, A DISTANCE OF 267.57 FEET;
THENCE N07°09'48"W A DISTANCE OF 220.45 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S68°36'17"W A DISTANCE OF 615.05 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N89°27'39"E, A DISTANCE OF 867.76 FEET;

SAID STRIP OF LAND BEING 835.50 FEET OR 50.64 RODS IN LENGTH, CONTAINING 0.575 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SE/4 835.50 L.F. 50.64 RODS 0.575 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,
NEW MEXICO, THIS 27TH DAY OF JUNE 2018

FILIMON F. JARAMILLO PLS. 12797

301 SOUTH CANAL
(575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 4817A

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

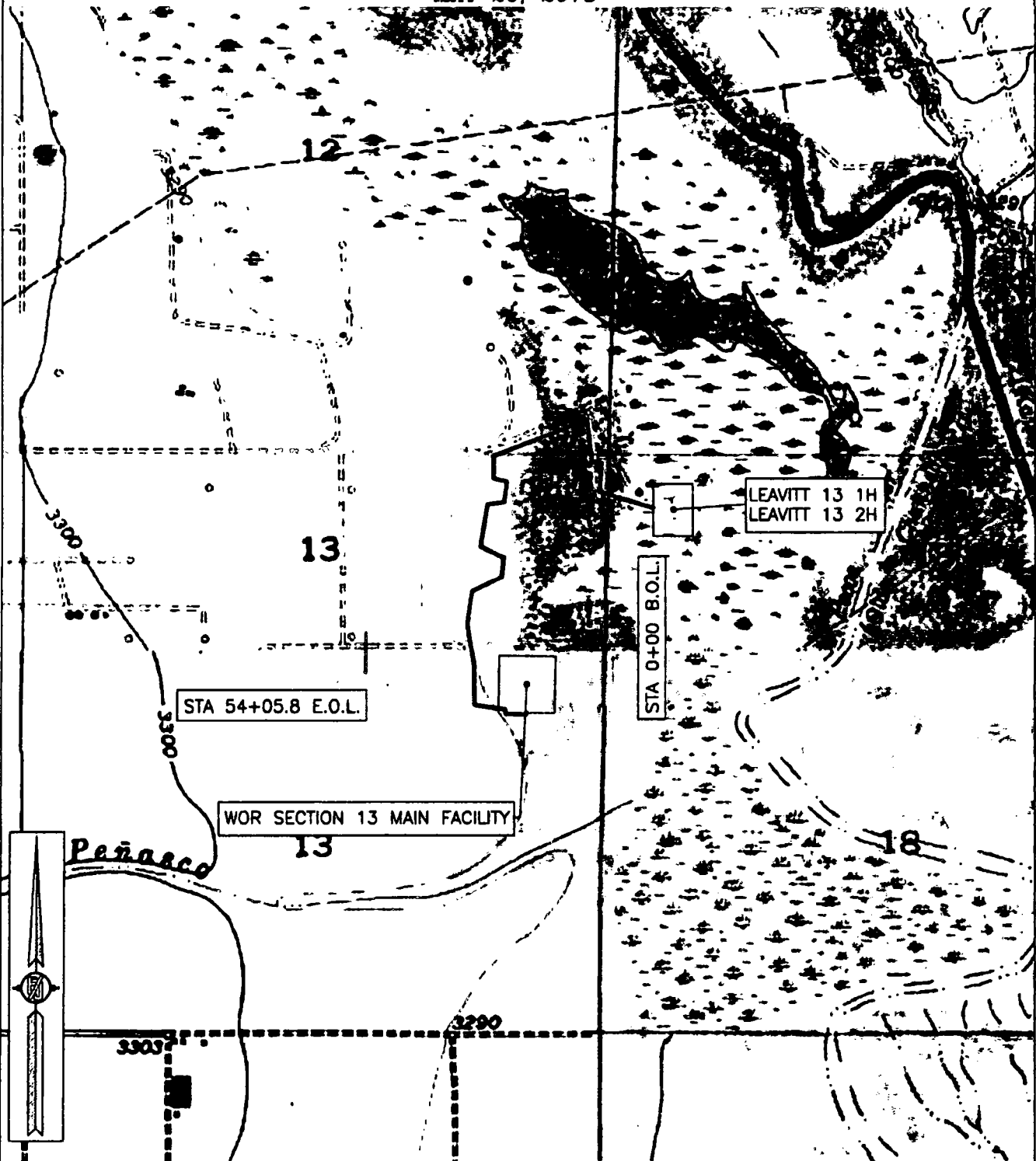
SHEET: 6-8

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

FLOWLINE PLAT

**TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE
WOR SECTION 13 MAIN FACILITY**

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
SECTIONS 13, 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 29, 2018**



SHEET: 7-8

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 **CARLSBAD, NEW MEXICO**

SURVEY NO. 4817A

FLOWLINE PLAT

**TWO 4" SDR7 POLY PRODUCTION SURFACE LINES FROM THE LEAVITT 13 1H & 2H TO THE
WOR SECTION 13 MAIN FACILITY**

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
SECTIONS 13, 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 29, 2018**



SHEET: 8-8

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 **CARLSBAD, NEW MEXICO**

SURVEY NO. 4817A

**Lime Rock Resources II-A, L.P.
Drilling Plan**

**Leavitt 13 #2H
660' FNL 500' FWL
(D) 18-18S-27E
Eddy County, NM**

1. The elevation of the unprepared ground is 3287.5 feet above sea level.
2. The geologic name of the surface formation is Quaternary – Alluvium.
3. A rotary rig will be utilized to drill the well to 8000' MD/2705' TVD and run casing. This equipment will be down and the well will be completed with a workover rig.
4. Well will be drilled to a total proposed depth of 8000' MD/2705' TVD. The KOP for horizontal drilling will be at 1932'. See directional plan for details.

5. Estimated tops of geologic markers:

	MD	TVD
Quaternary – Alluvium	Surface	Surface
Yates	NA	NA
7 Rivers	NA	NA
Queen	400	400
Grayburg	637	637
Premier	906	906
San Andres	946	946
Glorieta	2406	2305
Yeso	2496	2395
Tubb	NA	NA
TD	8000	2705

6. Estimated depths at which anticipated oil, gas, or other mineral bearing formations are expected to be encountered:

	MD	TVD
Yates	NA	NA
7 Rivers	NA	NA
Queen	400	400
Grayburg	637	637
Premier	906	906
San Andres	946	946
Glorieta	2406	2305
Yeso	2496	2395
Tubb	NA	NA
TD	8000	2705

7. Proposed Casing and Cement program is as follows:

Type	Hole	Casing	Wt	Grade	Thread	Depth	Sx	Density	Yield	Components
Conductor	26"	20"	91.5	B	Welded	80	80			Ready Mix
Surface	12.25"	9-5/8"	36	J-55	ST&C	1230	600	14.8	1.35	Cl C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl ₂
Intermediate										
Production	8 3/4"	5-1/2"	20	L-80	LT&C	8000	500	12.8	1.903	(35.65) Poz/Cl C Cmt + 5% NaCl + 0.25 lbs/sk Cello Flake + 5 lbs/sk LCM-1 + 0.2% R-3 + 6% Gel
							1800	14.8	1.33	Class C w/ 0.6% R-3 and 1/4 pps cello flake

8. Proposed Mud Program is as follows

Depth	0-1230	1230-7850	7850-8000
Mud Type	Fresh Water Mud	Brine, Salt Gel, & Starch	Brine, Salt Gel, & Starch
Properties			
MW	8.4-9.2	9.8-10.1	9.9-10.1
pH	9.0-10.5	10.0-12.0	10.0-12.0
WL	NC	NC	20-30
Vis	28-34	28-29	32-34
MC	NC	NC	<2
Solids	NC	<2%	<3%
Pump Rate	300-500 gpm	375-425 gpm	400-425 gpm
Special		Use Poymers sticks and MF-55 Hi-Vis Sweeps as necessary	Hi Vis Sweeps, add acid and starch as req. Raise Vis to 35 for log.

9. Pressure Control Equipment: See Attached Description and diagram of Pressure Control Equipment.

10. Testing, Logging and Coring Program

Testing Program: No drill stem tests are anticipated

Electric Logging Program: SGR-DLL-CDL-CNL Quad Combo from 8000 to surf. Csg. SGR-CNL to Surf.

Coring Program: No full or sidewall cores are anticipated.

11. Potential Hazards:

No abnormal temperatures or pressures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 1190.2 psi based on 0.44 x TD. The estimated BHT is 125 degrees F.

12. Duration of Operations:

Anticipated spud date will be soon after approval and as soon as a rig will be available. Move in operations and drilling is expected to take 15 days. An additional 14 days will be needed it complete the well and to construct surface facilities.



Project: Eddy County, NM
 Site: SEC 18 T18S R27E
 Well: Leavitt 13-2H
 Wellbore: Original Wellbore
 Design: Plan 4

Reference Details

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Latitude: 32° 45' 12.448 N
 Longitude: 104° 19' 29.525 W
 Grid Convergence: 0.00° West
 Ground Elevation: 3287.4
 KB Elevation: KB @ 3308.4usft

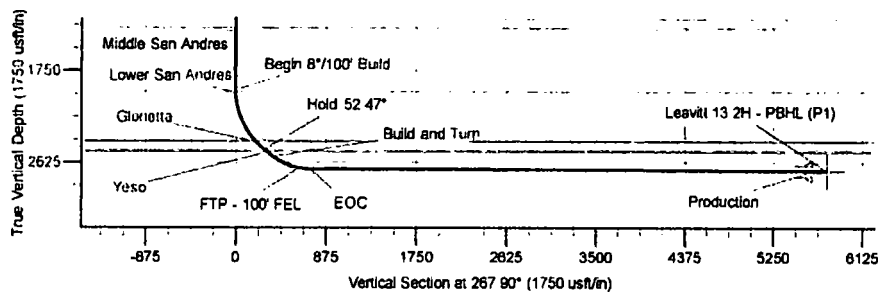
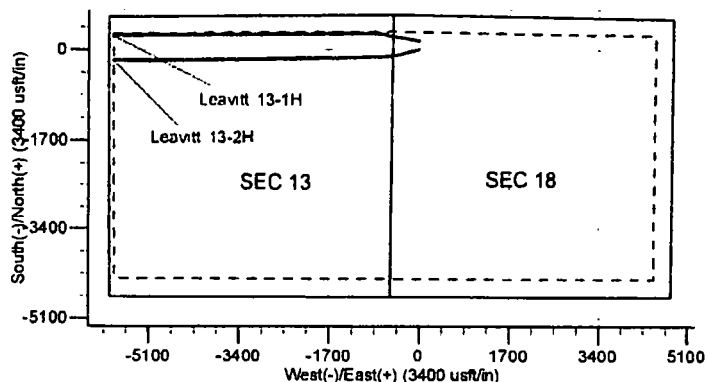
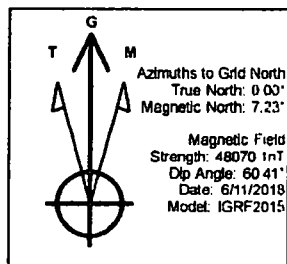
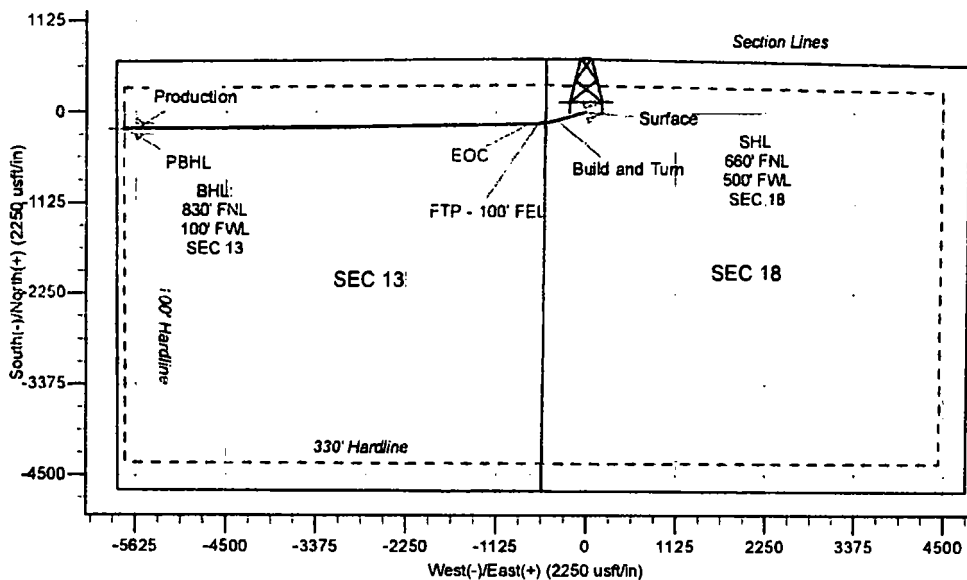


RPM Consulting, Inc.
 1600 Broadway, Suite 1610
 Denver, CO 80013
 303-595-7625

SECTION DETAILS

CASING DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	TVD	MD	Name	Size
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	1230.0	1230.0	Surface	9-5/8
1932.0	0.00	0.00	1932.0	0.0	0.0	0.00	0.00	0.0	2704.7	8000.0	Production	5-1/2
2587.9	52.47	255.00	2500.0	-72.4	-270.4	8.00	255.00	272.8				
2698.2	52.47	255.00	2567.2	-95.1	-354.9	0.00	0.00	358.1				
3093.1	89.86	268.78	2693.0	-141.7	-718.1	10.00	22.00	722.8				
8146.3	89.87	269.64	2705.0	-211.3	-5770.7	0.02	89.53	5774.5				



Lime Rock Resources

**Eddy County, NM
SEC 18 T18S R27E
Leavitt 13-2H**

Original Wellbore

Plan: Plan 4

Standard Planning Report

15 June, 2018

Planning Report

Database:	EDM Server Database	Local Co-ordinate Reference:	Well Leavitt 13-2H
Company:	Lime Rock Resources	TVD Reference:	KB @ 3308.4usft
Project:	Eddy County, NM	MD Reference:	KB @ 3308.4usft
Site:	SEC 18 T18S R27E	North Reference:	Grid
Well:	Leavitt 13-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan 4		

Project	Eddy County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	SEC 18 T18S R27E		
Site Position:		Northing:	638,004.77 usft
From:	Lat/Long	Easting:	543,939.96 usft
Position Uncertainty:	0.0 usft	Grid Radius:	13-3/16 "
		Latitude:	32° 45' 14.080 N
		Longitude:	104° 19' 29.525 W
		Grid Convergence:	0.00 °

Well	Leavitt 13-2H		
Well Position	+N-S	-164.9 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			Ground Level:
			3,287.4 usft

Wellbore	Original Wellbore		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	6/11/2018	7.24
			Dip Angle
			(°)
			60.41
			Field Strength
			(nT)
			48,070.12110492

Design	Plan 4		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			267.90

Plan Survey Tool Program	Date	6/15/2018	
Depth From	Depth To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
1	0.0	8,146.2	Plan 4 (Original Wellbore)
			MWD
			Geolink MWD

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,932.0	0.00	0.00	1,932.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,587.9	52.47	255.00	2,500.0	-72.4	-270.4	8.00	8.00	0.00	255.00	
2,698.2	52.47	255.00	2,567.2	-95.1	-354.9	0.00	0.00	0.00	0.00	
3,093.1	89.86	268.78	2,693.0	-141.7	-718.1	10.00	9.47	3.49	22.00	
8,146.3	89.87	269.64	2,705.0	-211.3	-5,770.7	0.02	0.00	0.02	89.53	Leavitt 13 2H - PBHL

Planning Report

Database: EDM Server Database
Company: Lime Rock Resources
Project: Eddy County, NM
Site: SEC 18 T18S R27E
Well: Leavitt 13-2H
Wellbore: Original Wellbore
Design: Plan 4

Local Co-ordinate Reference: Well Leavitt 13-2H
TVD Reference: KB @ 3308.4usft
MD Reference: KB @ 3308.4usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
Queen									
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
825.0	0.00	0.00	825.0	0.0	0.0	0.0	0.00	0.00	0.00
Grayburg									
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Premier									
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
San Andres									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,230.0	0.00	0.00	1,230.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,350.0	0.00	0.00	1,350.0	0.0	0.0	0.0	0.00	0.00	0.00
Middle San Andres									
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,932.0	0.00	0.00	1,932.0	0.0	0.0	0.0	0.00	0.00	0.00
Begin 8°/100' Build									
1,960.0	2.24	255.00	1,960.0	-0.1	-0.5	0.5	8.00	8.00	0.00
Lower San Andres									
2,000.0	5.44	255.00	1,999.9	-0.8	-3.1	3.1	8.00	8.00	0.00
2,100.0	13.44	255.00	2,098.5	-5.1	-18.9	19.1	8.00	8.00	0.00
2,200.0	21.44	255.00	2,193.8	-12.8	-47.9	48.3	8.00	8.00	0.00
2,300.0	29.44	255.00	2,284.0	-23.9	-89.3	90.1	8.00	8.00	0.00
2,400.0	37.44	255.00	2,367.4	-38.2	-142.5	143.8	8.00	8.00	0.00
2,480.3	43.87	255.00	2,428.3	-51.7	-193.0	194.8	8.00	8.00	0.00
Glorietta									
2,500.0	45.44	255.00	2,442.3	-55.3	-208.4	208.3	8.00	8.00	0.00
2,587.9	52.47	255.00	2,500.0	-72.5	-270.4	272.9	8.00	8.00	0.00
Hold 52.47°									
2,600.0	52.47	255.00	2,507.4	-74.9	-279.7	282.2	0.00	0.00	0.00
2,624.7	52.47	255.00	2,522.4	-80.0	-298.6	301.3	0.00	0.00	0.00
Yeso									
2,698.2	52.47	255.00	2,567.2	-95.1	-354.9	358.1	0.00	0.00	0.00
Build and Turn									
2,700.0	52.64	255.09	2,568.3	-95.5	-356.3	359.5	10.14	9.40	4.78
2,800.0	61.98	259.30	2,622.2	-113.9	-438.2	442.1	10.00	9.35	4.22
2,900.0	71.45	262.84	2,661.7	-128.1	-528.9	533.2	10.00	9.48	3.53

Planning Report

Database: EDM Server Database
 Company: Lime Rock Resources
 Project: Eddy County, NM
 Site: SEC 18 T18S R27E
 Well: Leavitt 13-2H
 Wellbore: Original Wellbore
 Design: Plan 4

Local Co-ordinate Reference: Well Leavitt 13-2H
 TVD Reference: KB @ 3308 4usft
 MD Reference: KB @ 3308 4usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,975.0	78.59	265.23	2,681.1	-135.6	-600.9	605.5	10.00	9.51	3.19
FTP - 100' FEL									
3,000.0	80.97	265.99	2,685.5	-137.5	-625.4	630.0	10.00	9.53	3.07
3,093.1	89.88	268.78	2,693.0	-141.7	-718.0	722.7	10.00	9.54	3.00
EOC									
3,100.0	89.86	268.78	2,693.0	-141.8	-724.9	728.8	0.04	0.03	0.03
3,200.0	89.86	268.80	2,693.2	-143.9	-824.9	829.6	0.02	0.00	0.02
3,300.0	89.86	268.82	2,693.5	-146.0	-924.9	929.6	0.02	0.00	0.02
3,400.0	89.86	268.84	2,693.7	-148.0	-1,024.9	1,029.6	0.02	0.00	0.02
3,500.0	89.86	268.85	2,694.0	-150.1	-1,124.8	1,129.6	0.02	0.00	0.02
3,600.0	89.86	268.87	2,694.2	-152.1	-1,224.8	1,229.6	0.02	0.00	0.02
3,700.0	89.86	268.89	2,694.4	-154.0	-1,324.8	1,329.5	0.02	0.00	0.02
3,800.0	89.86	268.90	2,694.7	-155.9	-1,424.8	1,429.5	0.02	0.00	0.02
3,900.0	89.86	268.92	2,694.9	-157.8	-1,524.8	1,529.5	0.02	0.00	0.02
4,000.0	89.86	268.94	2,695.2	-159.7	-1,624.7	1,629.5	0.02	0.00	0.02
4,100.0	89.86	268.95	2,695.4	-161.5	-1,724.7	1,729.5	0.02	0.00	0.02
4,200.0	89.86	268.97	2,695.7	-163.4	-1,824.7	1,829.5	0.02	0.00	0.02
4,300.0	89.86	268.99	2,695.9	-165.1	-1,924.7	1,929.4	0.02	0.00	0.02
4,400.0	89.86	269.00	2,696.1	-166.9	-2,024.7	2,029.4	0.02	0.00	0.02
4,500.0	89.86	269.02	2,696.4	-168.6	-2,124.7	2,129.4	0.02	0.00	0.02
4,600.0	89.86	269.04	2,696.6	-170.3	-2,224.7	2,229.4	0.02	0.00	0.02
4,700.0	89.86	269.06	2,696.9	-172.0	-2,324.6	2,329.4	0.02	0.00	0.02
4,800.0	89.86	269.07	2,697.1	-173.6	-2,424.6	2,429.4	0.02	0.00	0.02
4,900.0	89.86	269.09	2,697.3	-175.2	-2,524.6	2,529.3	0.02	0.00	0.02
5,000.0	89.86	269.11	2,697.6	-176.8	-2,624.6	2,629.3	0.02	0.00	0.02
5,100.0	89.86	269.12	2,697.8	-178.3	-2,724.6	2,729.3	0.02	0.00	0.02
5,200.0	89.86	269.14	2,698.1	-179.8	-2,824.6	2,829.3	0.02	0.00	0.02
5,300.0	89.86	269.16	2,698.3	-181.3	-2,924.6	2,929.2	0.02	0.00	0.02
5,400.0	89.86	269.17	2,698.5	-182.8	-3,024.6	3,029.2	0.02	0.00	0.02
5,500.0	89.86	269.19	2,698.8	-184.2	-3,124.5	3,129.2	0.02	0.00	0.02
5,600.0	89.86	269.21	2,699.0	-185.6	-3,224.5	3,229.2	0.02	0.00	0.02
5,700.0	89.86	269.22	2,699.2	-187.0	-3,324.5	3,329.1	0.02	0.00	0.02
5,800.0	89.86	269.24	2,699.5	-188.3	-3,424.5	3,429.1	0.02	0.00	0.02
5,900.0	89.86	269.26	2,699.7	-189.6	-3,524.5	3,529.1	0.02	0.00	0.02
6,000.0	89.86	269.28	2,700.0	-190.9	-3,624.5	3,629.1	0.02	0.00	0.02
6,100.0	89.86	269.29	2,700.2	-192.2	-3,724.5	3,729.0	0.02	0.00	0.02
6,200.0	89.86	269.31	2,700.4	-193.4	-3,824.5	3,829.0	0.02	0.00	0.02
6,300.0	89.86	269.33	2,700.7	-194.6	-3,924.5	3,929.0	0.02	0.00	0.02
6,400.0	89.86	269.34	2,700.9	-195.7	-4,024.5	4,028.9	0.02	0.00	0.02
6,500.0	89.86	269.36	2,701.1	-196.9	-4,124.5	4,128.9	0.02	0.00	0.02
6,600.0	89.86	269.38	2,701.4	-198.0	-4,224.5	4,228.9	0.02	0.00	0.02
6,700.0	89.86	269.39	2,701.6	-199.0	-4,324.4	4,328.8	0.02	0.00	0.02
6,800.0	89.87	269.41	2,701.9	-200.1	-4,424.4	4,428.8	0.02	0.00	0.02
6,900.0	89.87	269.43	2,702.1	-201.1	-4,524.4	4,528.8	0.02	0.00	0.02
7,000.0	89.87	269.44	2,702.3	-202.1	-4,624.4	4,628.7	0.02	0.00	0.02
7,100.0	89.87	269.46	2,702.6	-203.0	-4,724.4	4,728.7	0.02	0.00	0.02
7,200.0	89.87	269.48	2,702.8	-204.0	-4,824.4	4,828.7	0.02	0.00	0.02
7,300.0	89.87	269.50	2,703.0	-204.9	-4,924.4	4,928.6	0.02	0.00	0.02
7,400.0	89.87	269.51	2,703.3	-205.7	-5,024.4	5,028.6	0.02	0.00	0.02
7,500.0	89.87	269.53	2,703.5	-206.6	-5,124.4	5,128.5	0.02	0.00	0.02
7,600.0	89.87	269.55	2,703.7	-207.4	-5,224.4	5,228.5	0.02	0.00	0.02
7,700.0	89.87	269.56	2,704.0	-208.1	-5,324.4	5,328.5	0.02	0.00	0.02
7,800.0	89.87	269.58	2,704.2	-208.9	-5,424.4	5,428.4	0.02	0.00	0.02
7,900.0	89.87	269.60	2,704.4	-209.6	-5,524.4	5,528.4	0.02	0.00	0.02

Planning Report

Database: EDM Server Database
Company: Lime Rock Resources
Project: Eddy County, NM
Site: SEC 18 T18S R27E
Well: Leavitt 13-2H
Wellbore: Original Wellbore
Design: Plan 4

Local Co-ordinate Reference: Well Leavitt 13-2H
TVD Reference: KB @ 3308 4usft
MD Reference: KB @ 3308 4usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,000.0	89.87	289.61	2,704.7	-210.3	-5,624.4	5,628.3	0.02	0.00	0.02
Production									
8,100.0	89.87	289.63	2,704.9	-211.0	-5,724.4	5,728.3	0.02	0.00	0.02
8,146.3	89.87	269.64	2,705.0	-211.3	-5,770.7	5,774.5	0.02	0.00	0.02
PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Leavitt 13 2H - PBHL (P	0.00	0.01	2,705.0	-211.3	-5,770.7	637,628.61	538,169.31	32° 45' 10.357 N	104° 20' 37.100 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,230.0	1,230.0	Surface	9-5/8	12-1/4
8,000.0	2,704.7	Production	5-1/2	8-3/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
400.0	400.0	Queen		0.00	
825.0	825.0	Grayburg		0.00	
1,000.0	1,000.0	Premier		0.00	
1,040.0	1,040.0	San Andres		0.00	
1,350.0	1,350.0	Middle San Andres		0.00	
1,960.0	1,960.0	Lower San Andres		0.00	
2,480.3	2,428.3	Glorietta		0.00	
2,624.7	2,522.4	Yeso		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
1,932.0	1,932.0	0.0	0.0	Begin 6°/100' Build
2,587.9	2,500.0	-72.5	-270.4	Hold 52.47°
2,698.2	2,567.2	-95.1	-354.9	Build and Turn
2,975.0	2,681.1	-135.6	-600.9	FTP - 100' FEL
3,093.1	2,693.0	-141.7	-718.0	EOC
8,146.3	2,705.0	-211.3	-5,770.7	PBHL

Hydrogen Sulfide Drilling Plan Summary

A. All personnel shall receive proper H₂S training in accordance with Onshore Order 6 III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

■ Well control equipment

- a. Flare line 150' from wellhead to be ignited by flare gun.
- b. Choke manifold with a remotely operated choke.
- c. Mud/gas separator

■ Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escapes packs — 4 packs shall be stored on the rig floor and contain sufficiently long air hoses as to not restrict work activity.
- c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

■ H₂S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

■ Visual warning systems:

- a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
- c. Two wind socks will be placed in strategic locations, visible from all angles.

■ Mud program:

The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.

■ **Metallurgy:**

- a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- b. All elastomers used for packing and seals shall be H₂S trim.

■ **Communication:**

Communication will be via two way radio in emergency and company vehicles. Cell phones and land lines where available.

H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

Company Offices - Lime Rock Houston Office
 Answering Service (After Hours)
 Artesia, NM Office
 Roswell, NM

713-292-9510
 713-292-9555
 575-748-9724
 575-623-8424

KEY PERSONNEL

Name	Title	Location	Office #	Cell #	Home #
Steve Hunter	Production Manager	Houston	713-292-9516	832-330-7313	Same as Cell
Spencer Cox	Operations Engineer	Houston	713-292-9528	432-254-5140	Same as Cell
Eric McClusky	Operations Engineer	Houston	713-360-5714	832-491-3079	405-821-0534
Jerry Smith	Assistant Production Supervisor	Artesia	575-748-9724	505-918-0556	575-746-2478
Michael Barrett	Production Supervisor	Roswell	575-623-8424	505-353-2644	575-623-4707
Gary McClland	Well Site Supervisor	Rotates on Site	NA	903-503-8997	NA
Dave Williamson	Well Site Supervisor	Rotates on Site	NA	575-308-9980	NA

Agency Call List

City	Agency or Office	Telephone #
Artesia	Ambulance	911
Artesia	State Police	575-746-2703
Artesia	Sherriff's Office	575-746-9888
Artesia	City Police	575-746-2703
Artesia	Fire Department	575-746-2701
Artesia	Local Emergency Planning Committee	575-746-2122
Artesia	New Mexico OCD District II	575-748-1283
Carlsbad	Ambulance	911
Carlsbad	State Police	575-885-3137
Carlsbad	Sherriff's Office	575-887-7551
Carlsbad	City Police	575-885-2111
Carlsbad	Fire Department	575-885-2111
Carlsbad	Local Emergency Planning Committee	575-887-3798
Carlsbad	US DOI Bureau of Land Management	575-887-6544
State Wide	New Mexico Emergency Response Commisssion ("NMERC")	505-476-9600
State Wide	NMERC 24 Hour Number	505-827-9126
State Wide	New Mexico State Emergency Operations Center	505-476-9635
National	National Emergency Response Center (Washington D.C.)	800-424-8802

Emergency Services				
Name	Service	Location	Telephone Number	Alternate Number
Boots & Coots International Well Control	Well Control	Houston / Odessa	1-800-256-9688	281-931-8884
Cudd Pressure Control	Well Control/Pumping	Odessa	915-699-0139	915-563-3356
Baker Hughes Inc.	Pumping Services	Artesia, Hobbs & Odessa	575-746-2757	Same
Total Safety	Safety Equipment & Personnel	Artesia	575-746-2847	Same
Cutter Oilfield Services	Drilling Systems Equipment	Midland	432-488-6707	Same
Safety Dog	Safety Equipment & Personnel	Artesia	575-748-5847	575-441-1370
Fighting for Life	Emergency Helicopter Evacuation	Lubbock	806-743-9911	Same
Aerocare	Emergency Helicopter Evacuation	Lubbock	806-747-8923	Same
Med Flight Air Ambulance	Emergency Helicopter Evacuation	Albuquerque	505-842-4433	Same
Artesia General Hospital	Emergency Medical Care	Artesia	575-748-3333	702 North 13th Street

Pressure Control Equipment

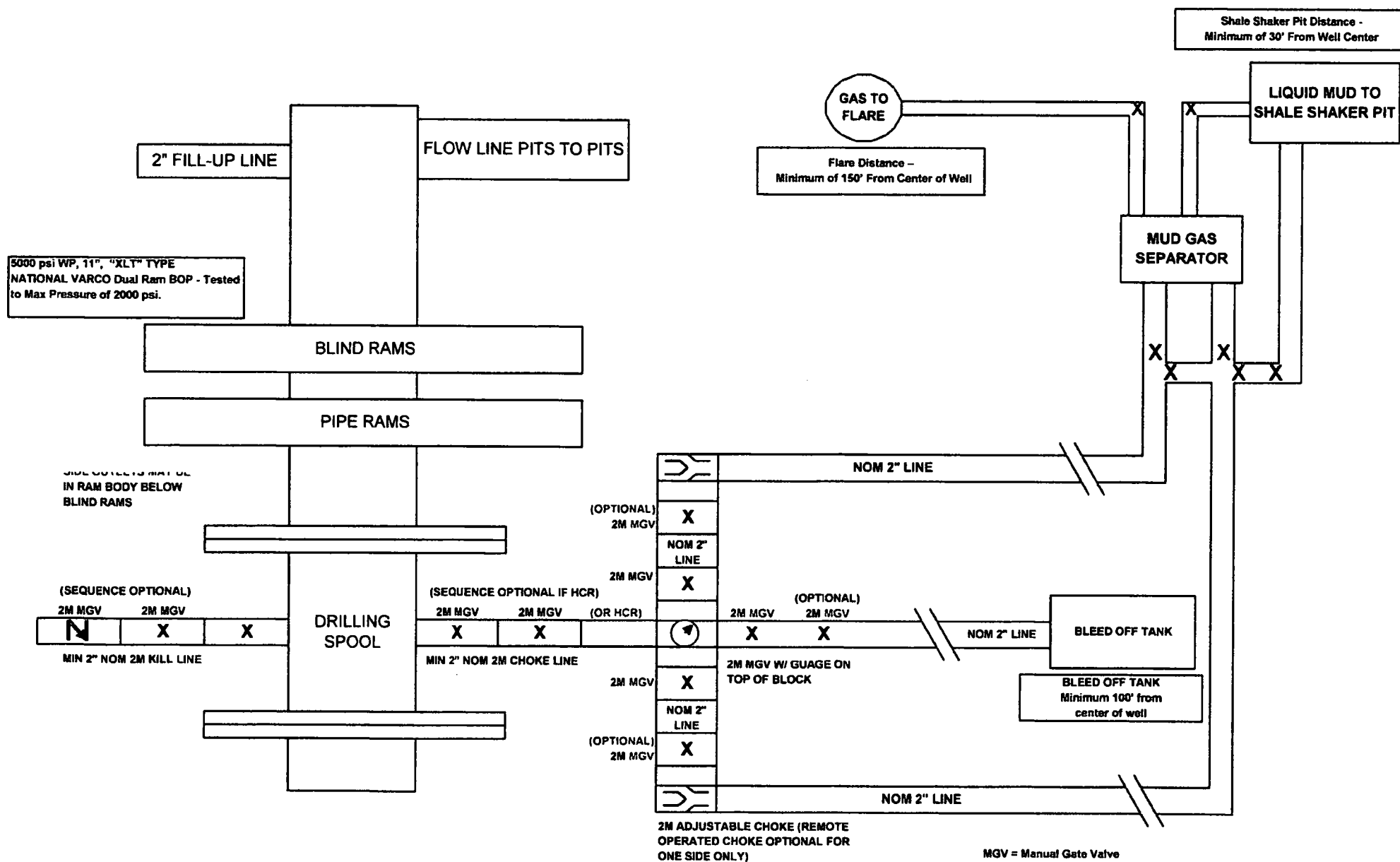
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The 2M BOP will be installed on the 9 5/8" surface casing and utilized continuously until total depth is reached. All casing strings will be tested as per Onshore Order #2. This also includes a thirty day (30) test, should the rig still be operating on the same well in thirty days.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

The BOP equipment will consist of the following:

- Double ram with blind rams (top) and pipe rams (bottom),
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 2" minimum diameter, kill side will be at least 2 inch diameter),
- Kill line (2 inch minimum),
- A minimum of 2 choke line valves (2 inch minimum),
- 2 inch diameter choke line,
- 2 kill valves, one of which will be a check valve (2 inch minimum),
- 2 chokes, one of which will be capable of remote operation,
- Pressure gauge on choke manifold,
- Upper Kelly cock valve with handle available,
- Safety valve and subs to fit all drill string connections in use,
- All BOPE connections subjected to well pressure will be flanged, welded, or clamped,
- A Fill-up line above the uppermost preventer.

2M BOP SCHEMATIC



MGV = Manual Gate Valve
CKV = Check Valve
HCR = Hydraulically Controlled Remote Valve

NOTE: All lines, valves and chokes are shown at the minimum size allowed, but may be larger

Lime Rock Resources II-A, L.P.

Leavitt 13 #2H

Unit D, S18-T18S-R27E, Eddy County, NM

Design: Closed Loop System with roll-off steel bins (pits)

CRI/HOBBS will supply (2) bins (100 bbl) volume, rails and transportation relating to the Close Loop System. Specification of the Closed Loop System is attached.

Contacts: Gary Wallace (432) 638-4076 Cell (575) 393-1079 Office

Scomi Oil Tool: Supervisor – Armando Soto (432) 553-7979 Hobbs, NM

Monitoring 24 Hour service

Equipment:

Centrifuges – Derrick Brand

Rig Shakers – Brandt Brand

D-watering Unit

Air pumps on location for immediate remediation process

Layout of Close Loop System with bins, centrifuges and shakers attached.

Cuttings and associated liquids will be hauled to a State regulated third party disposal site (CRI or Controlled Recovery, Inc.). The disposal site permit is DFP = #R9166.

2- (250 bbl) tanks to hold fluid

2-CRI bins with track system

2-500 bbl frac tanks with fresh water

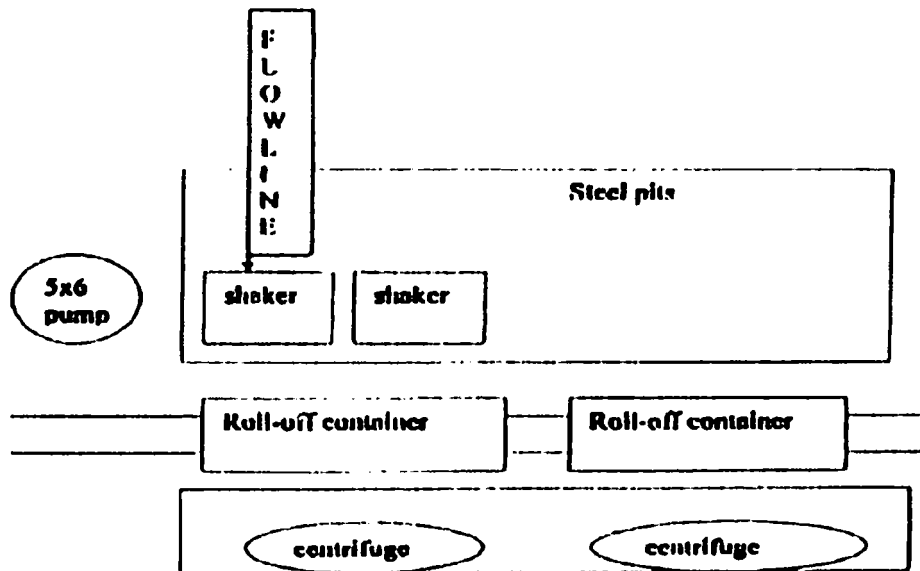
2-500 bbl frac tanks for brine water

Operations:

Closed Loop System equipment will be inspected daily by each tour and any necessary maintenance performed. leak in system will be repaired and/or contained immediately. OCD will be notified within 48 hours of any spill. Remediation process will start immediately.

Closure:

During drilling operations all liquids, drilling fluids and cuttings will be hauled off via CRI equipment to DFP #R9166.



This will be maintained by 24 hour solids control personnel that stay on location.

TOMMY WILSON



**CLOSED LOOP
SPECIALTY**

Office: 575.746.1689

Cell: 575.746.6367