

1625 N. French Dr., Hobbs, NM 88240
 Phone: (575) 393-6161 Fax: (575) 393-0729
 District II
 811 S. First St., Artesia, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720
 District III
 1508 Rio Brazos Road, Aztec, NM 87410
 Phone: (505) 334-6176 Fax: (505) 334-6170
 District IV
 1226 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources
NM OIL CONSERVATION
ARTESIA DISTRICT Oil Conservation Division
AUG 22 2017
220 South St. Francis Dr
Santa Fe, NM 87505
RECEIVED

Form C-101
 Revised July 18, 2013

AMENDED Rep

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

Operator Name and Address Line Rock Resources II-A, L.P. 1111 Bagby Street, Suite 4600 Houston, Texas 77002		OGRIID Number: 277558
Proprietary Code 315091 319465		API Number 30-015- 44413
Proprietary Name Bramard 12M		Well No. #2

7 Surface Location

Oil Well	Section	Township	Range	Lot	Feet From	N/S Line	Feet From	E/W Line	County
M	12	18S	26E		990	S	1295	W	Eddy

8 Proposed Bottom Hole Location

Oil Well	Section	Township	Range	Lot	Feet From	N/S Line	Feet From	E/W Line	County
M	12	18S	26E		990	S	1295	W	Eddy

9 Pool Information

Atoka, Glorietta-Yeso	3250
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Additional Well Information

Well Type N	Well Type O	Table Ratio K	Depth From P	Ground Level Elevation 3298.2
Mudbit N	Proposed Depth 4600' MD / 4600' FVD	Formation Yeso	Contractor United Drilling, Inc	Start Date After 9/1/2017
Depth to Ground Water 30 Ft	Distance from nearest fresh water well 1.9 Miles	Distance from nearest surface water 1 Miles		

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

19 Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/lb	Setting Depth	Sacks of Cement	Estimated TOC
Conductor	26"	20"	91.5	80	80	Surface
Surface	11"	8-5/8"	24	1230	450	Surface
Production	7-7/8"	5-1/2"	17	4600	900	Surface

Casing/Cement Program: Additional Comments

Artesian Aquifer Porosity 1160'-1170'

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
XL 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) and/or 19.15.14.9 (B) NMAC 0, if

Signature: *Eric P. McClusky*
 Printed Name: Eric McClusky

Title: Operations Engineer

E-mail Address: emccclusky@limerockresources.com

Date: 8/21/2017

Phone: 713-360-5714

OIL CONSERVATION DIVISION

Approved By: *Raymond W. Bodany*
 Title: *Geologist*

Approved Date: *8-24-17* Expiration Date: *8-24-19*

Conditions of Approval Attached: *NSL-Required. Circ CMT. for RAB.*

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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

NM OIL CONSERVATION State of New Mexico
ARTESIA DISTRICT
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

RECEIVED
AUG 22 2017

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-44412	² Pool Code 3250	³ Pool Name Atoka; Gloria - Yes
⁴ Property Code 315091 319465	⁵ Property Name BRAINARD 12M	
⁶ OGRID No. 277558	⁷ Operator Name LIME ROCK RESOURCES II-A, L.P.	⁸ Well Number 2
⁹ Elevation 3298.2		

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	12	18 S	26 E		990	SOUTH	1295	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

¹⁴ Dedicated Acres 40	¹⁵ Joint or Infill	¹⁶ Consolidation Code	¹⁷ 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.

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. VERTICAL DATUM NAVD88.

BRAINARD 12M 2
ELEV. = 3298.2'
LAT. = 32.7579099°N (NAD83)
LONG. = 104.3397358°W
NMSP EAST (FT)
N = 639459.56
E = 539369.31

SURFACE LOCATION

SW CORNER SEC. 12
LAT. = 32.7551551°N
LONG. = 104.3439789°W
NMSP EAST (FT)
N = 638457.46
E = 538064.84

SE CORNER SEC. 12
LAT. = 32.7552947°N
LONG. = 104.3264684°W
NMSP EAST (FT)
N = 638508.14
E = 543447.93

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 unleased 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 to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Eric McCluskey 8/26/17
Signature Date
Eric McCluskey
Printed Name
emclusty@limerockresources.com
E-mail Address

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.

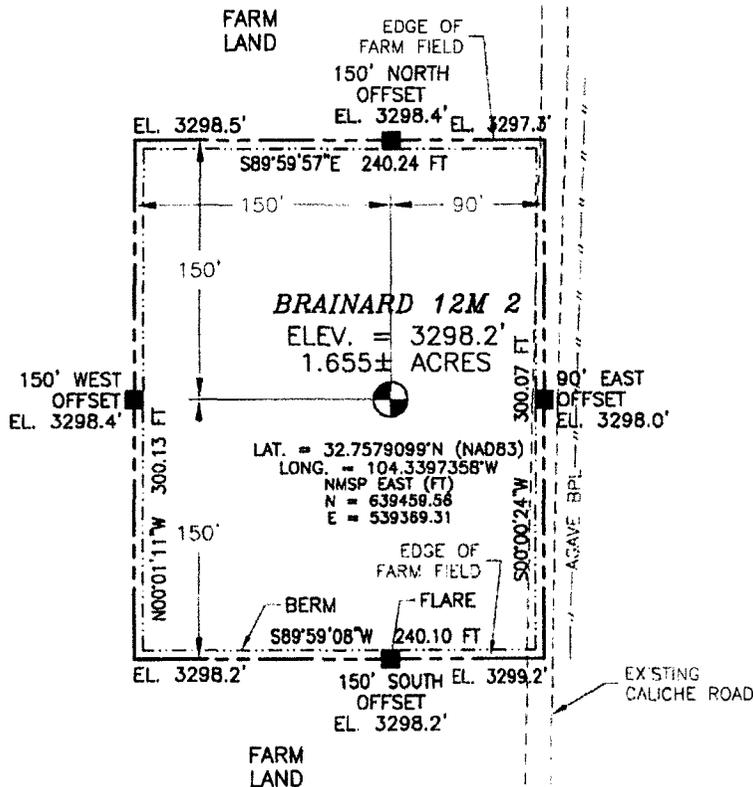
JULY 6, 2017
Date of Survey

[Signature]
Signature and Seal of Professional Surveyor
Certificate Number: FREDON E. JARAMILA, PLS 12797
SURVEY NO. 5291

SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 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



0 10 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM CR 39 (FOUR DINKUS) AND CR 44 (FANNING) AND CALICHE LEASE ROAD, GO EAST ON CALICHE ROAD 0.5 OF A MILE, TURN LEFT AND GO NORTH 865' TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

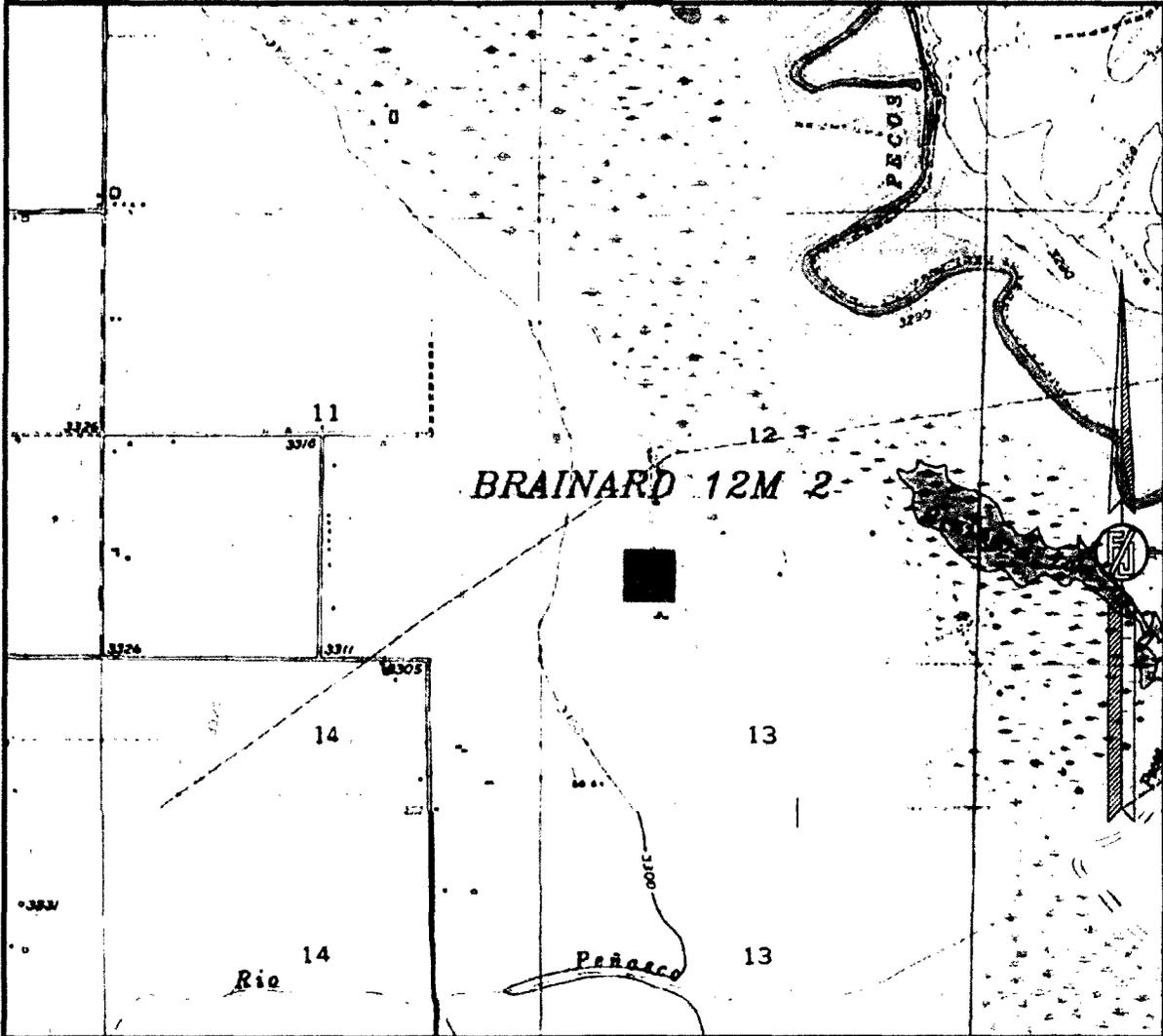
LIME ROCK RESOURCES II-A, L.P.
BRAINARD 12M 2
 LOCATED 990 FT. FROM THE SOUTH LINE
 AND 1295 FT. FROM THE WEST LINE OF
 SECTION 12, TOWNSHIP 18 SOUTH,
 RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

JULY 6, 2017

SURVEY NO. 5291

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

SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
SPRING LAKE

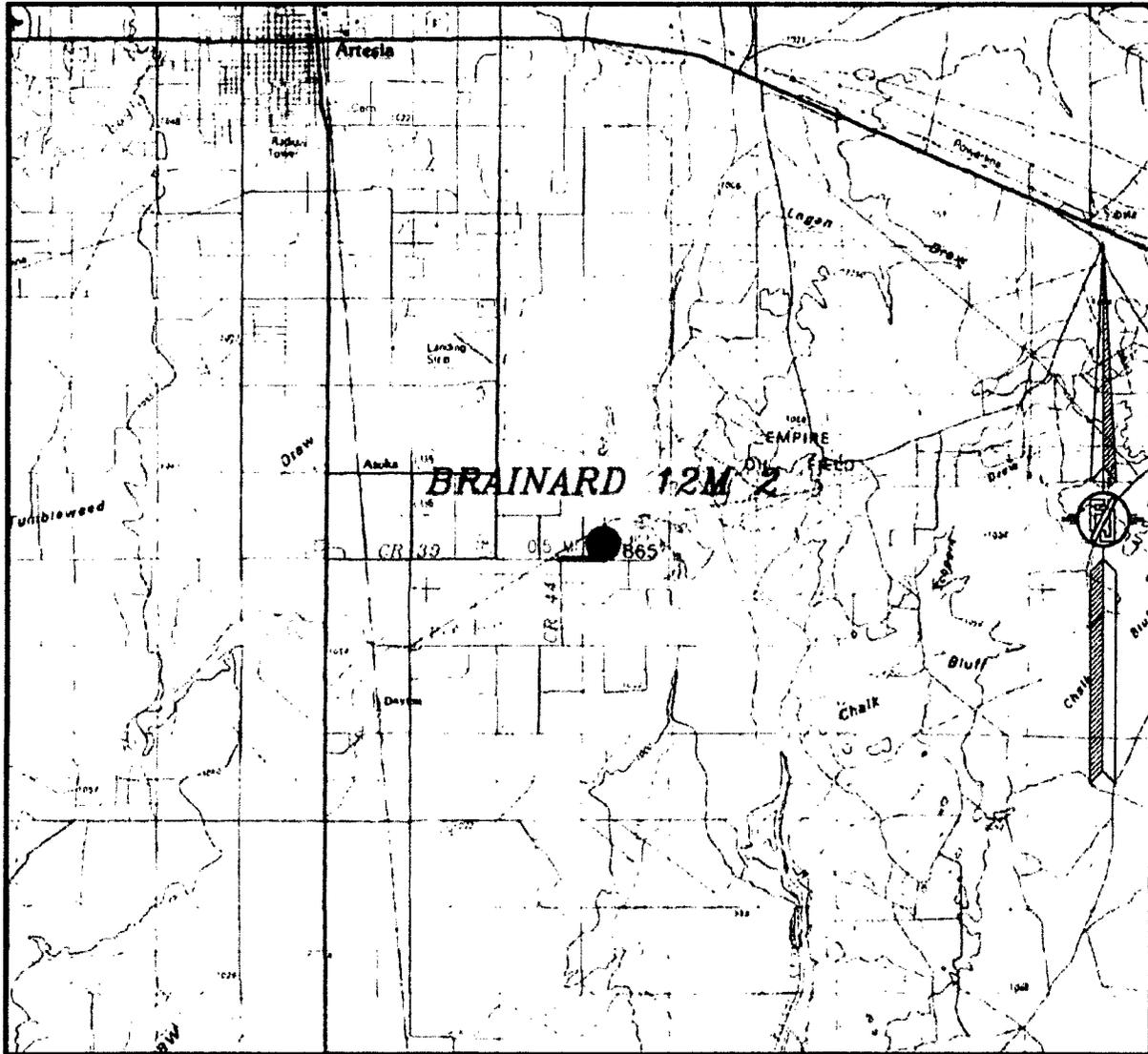
NOT TO SCALE

LIME ROCK RESOURCES II-A, L.P.
BRAINARD 12M 2
LOCATED 990 FT. FROM THE SOUTH LINE
AND 1295 FT. FROM THE WEST LINE OF
SECTION 12, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JULY 6, 2017

MADRON SURVEYING, INC. 30' SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO SURVEY NO. 5291

SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

LIME ROCK RESOURCES II-A, L.P.
BRAINARD 12M 2
 LOCATED 990 FT. FROM THE SOUTH LINE
 AND 1295 FT. FROM THE WEST LINE OF
 SECTION 12, TOWNSHIP 18 SOUTH,
 RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION
 FROM CR 39 (FOUR DINKUS) AND CR 44 (FANNING) AND CALICHE
 LEASE ROAD, GO EAST ON CALICHE ROAD 0.5 OF A MILE, TURN LEFT
 AND GO NORTH 885' TO THE SOUTHEAST PAD CORNER FOR THIS
 LOCATION.

JULY 6, 2017

SURVEY NO. 5291

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

SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2016

**LIME ROCK RESOURCES II-A, L.P.
BRAINARD 12M 2**
LOCATED 990 FT. FROM THE SOUTH LINE
AND 1295 FT. FROM THE WEST LINE OF
SECTION 12, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JULY 6, 2017

SURVEY NO. 5291

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

SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2016

*LIME ROCK RESOURCES II-A, L.P.
BRAINARD 12M 2
LOCATED 990 FT. FROM THE SOUTH LINE
AND 1295 FT. FROM THE WEST LINE OF
SECTION 12, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO*

JULY 6, 2017

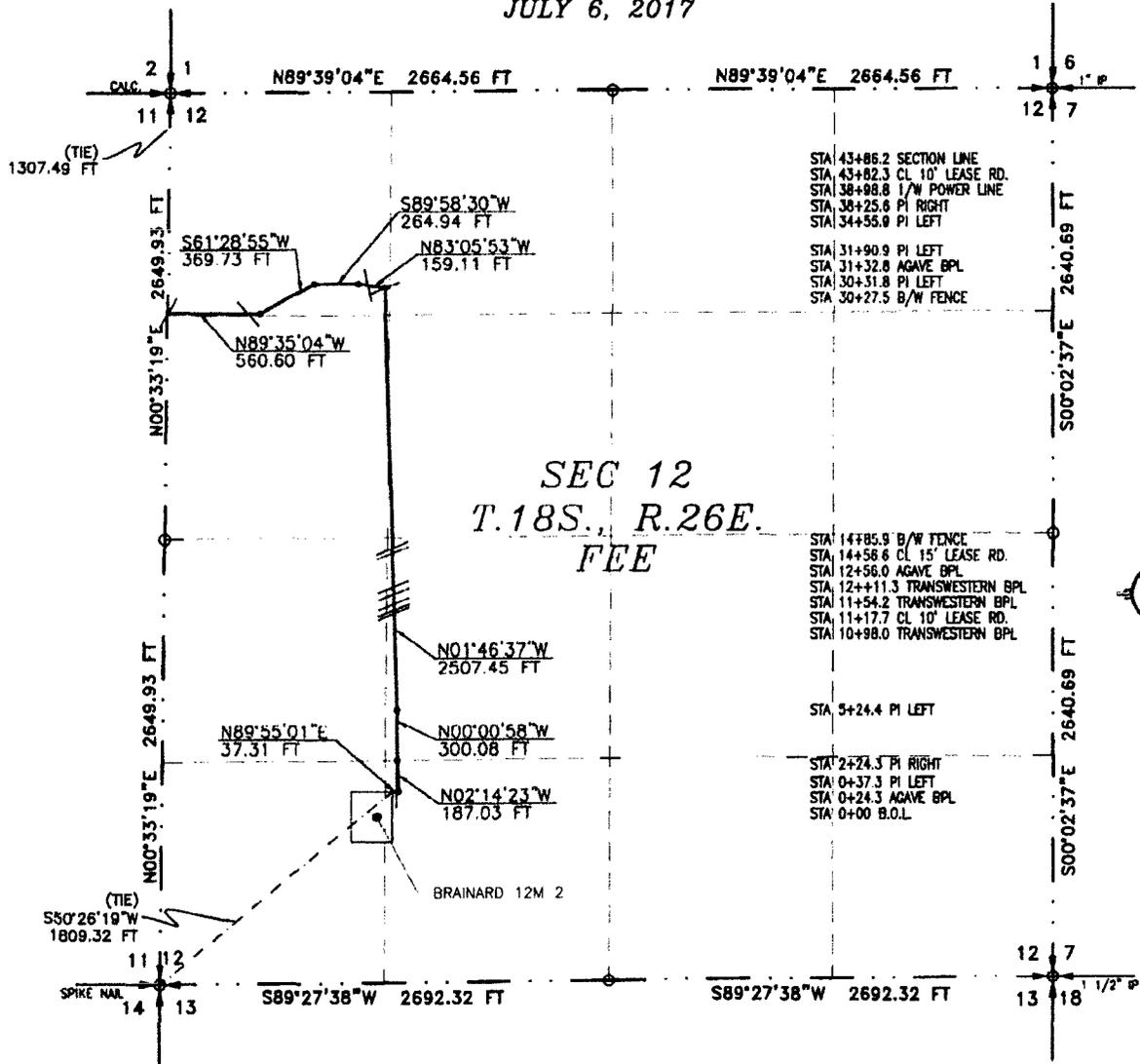
SURVEY NO. 5291

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

FLOWLINE PLAT

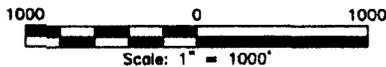
TWO 3" POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE BRAINARD 12M 2 TO THE BRAINARD GAS COM 2 BATTERY

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
 JULY 6, 2017



SEC 12
 T.18S., R.26E.
 FEE

SEE NEXT SHEET (2-6) 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.

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 12 DAY OF JULY 2017

Filmon F. Jaramillo
 FILMON F. JARAMILLO, PLS. 12797

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

SHEET: 1-6

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO SURVEY NO. 5291

FLOWLINE PLAT

TWO 3" POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE BRAINARD 12M 2 TO THE BRAINARD GAS COM 2 BATTERY

**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
JULY 6, 2017**

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 SW/4 OF SAID SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M., WHENCE THE SOUTHWEST CORNER OF SAID SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS S50°26'19"W, A DISTANCE OF 1809.32 FEET;
THENCE N89°55'01"E A DISTANCE OF 37.31 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N02°14'23"W A DISTANCE OF 187.03 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°00'58"W A DISTANCE OF 300.08 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N01°46'37"W A DISTANCE OF 2507.45 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N83°05'53"W A DISTANCE OF 159.11 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°58'30"W A DISTANCE OF 284.94 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S61°28'55"W A DISTANCE OF 369.73 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N89°35'04"W A DISTANCE OF 560.60 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHWEST CORNER OF SAID SECTION 12, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N00°33'19"E, A DISTANCE OF 1307.49 FEET;

SAID STRIP OF LAND BEING 4386.25 FEET OR 265.84 RODS IN LENGTH, CONTAINING 3.021 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SW/4	222.06 L.F.	13.46 RODS	0.153 ACRES
NE/4 SW/4	1323.88 L.F.	80.24 RODS	0.912 ACRES
SE/4 NW/4	741.74 L.F.	44.95 RODS	0.511 ACRES
SW/4 NW/4	582.29 L.F.	35.29 RODS	0.401 ACRES
NW/4 NW/4	1516.28 L.F.	91.90 RODS	1.044 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 12 DAY OF JULY 2017

Filimon F. Jaramillo
FILIMON F. JARAMILLO PLS. 12797
MADRON SURVEYING, INC
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

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: 2-6

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

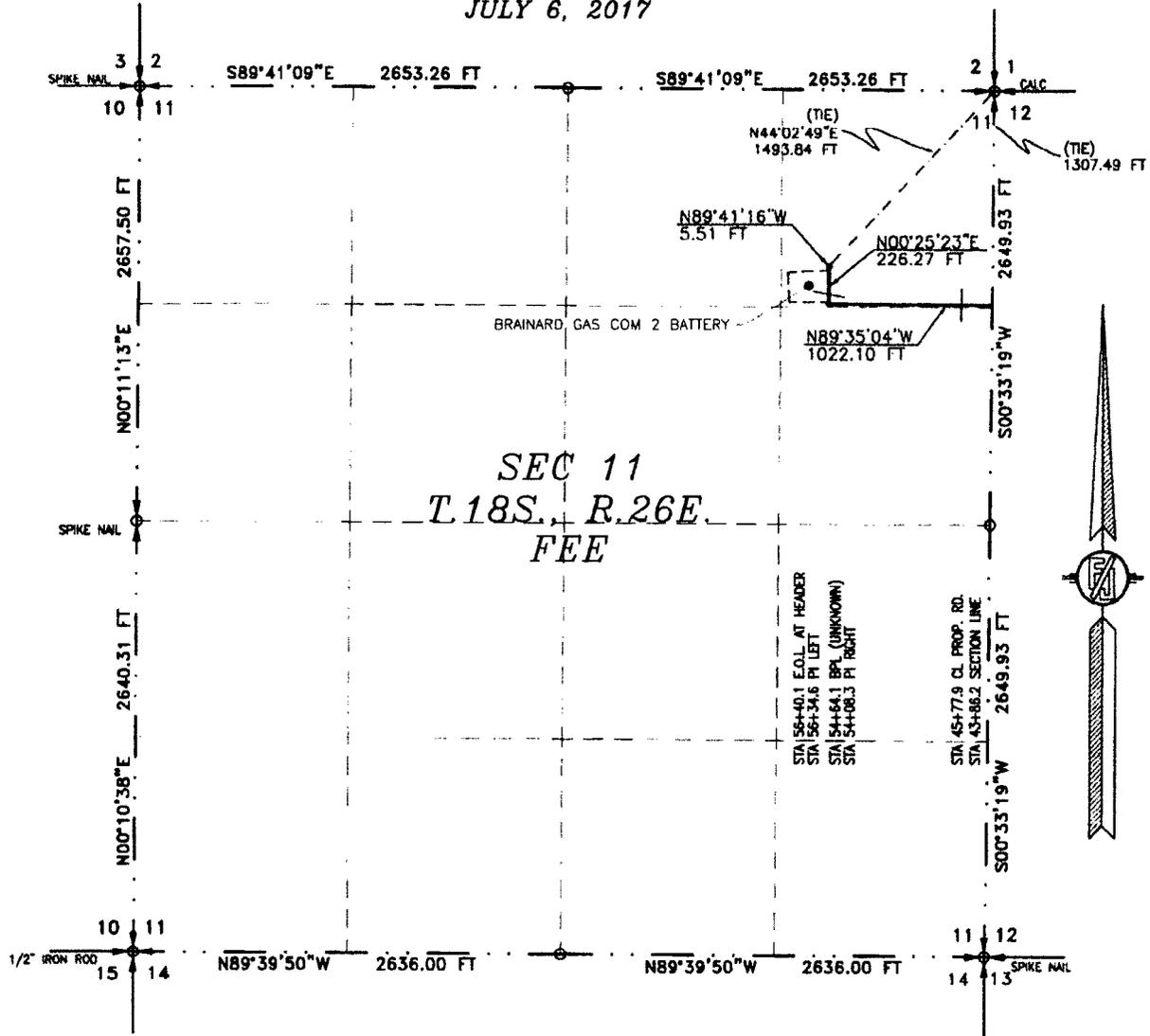
SURVEY NO. 5291

301 SOUTH CANAL
(575) 234-3341

FLOWLINE PLAT

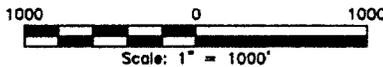
TWO 3" POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE BRAINARD 12M 2 TO THE BRAINARD GAS COM 2 BATTERY

LIME ROCK RESOURCES II-A, L.P.
 CENTERLINE SURVEY OF A PIPELINE CROSSING
 SECTION 11, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 JULY 6, 2017



SEC 11
 T. 18S., R. 26E.
 FEE

SEE NEXT SHEET (4-6) 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.

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 12 DAY OF JULY 2017

Filimon F. Jaramillo
 FILIMON F. JARAMILLO, P.E.S. 12797
 MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone: (575) 234-3341

SHEET: 3-6

MADRON SURVEYING INC. CARLSBAD, NEW MEXICO

SURVEY NO. 5291

FLOWLINE PLAT

TWO 3" POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE BRAINARD 12M 2 TO THE BRAINARD GAS COM 2 BATTERY

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 11, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JULY 6, 2017**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE LAND IN SECTION 11, 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 NE/4 NE/4 OF SAID SECTION 11, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M., WHENCE THE NORTHEAST CORNER OF SAID SECTION 11, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N00°33'19"E, A DISTANCE OF 1307.49 FEET;

THENCE N89°35'04"W A DISTANCE OF 1022.10 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;

THENCE N00°25'23"E A DISTANCE OF 226.27 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;

THENCE N89°41'16"W A DISTANCE OF 5.51 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 11, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. BEARS N44°02'49"E, A DISTANCE OF 1493.84 FEET;

SAID STRIP OF LAND BEING 1253.88 FEET OR 75.99 RODS IN LENGTH, CONTAINING 0.864 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NE/4 1253.88 L.F. 75.99 RODS 0.864 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 12 DAY OF JULY 2017

Filmon F. Jaramillo
FILMON F. JARAMILLO, PLS. 12797
MADRON SURVEYING, INC.
801 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

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: 4-6

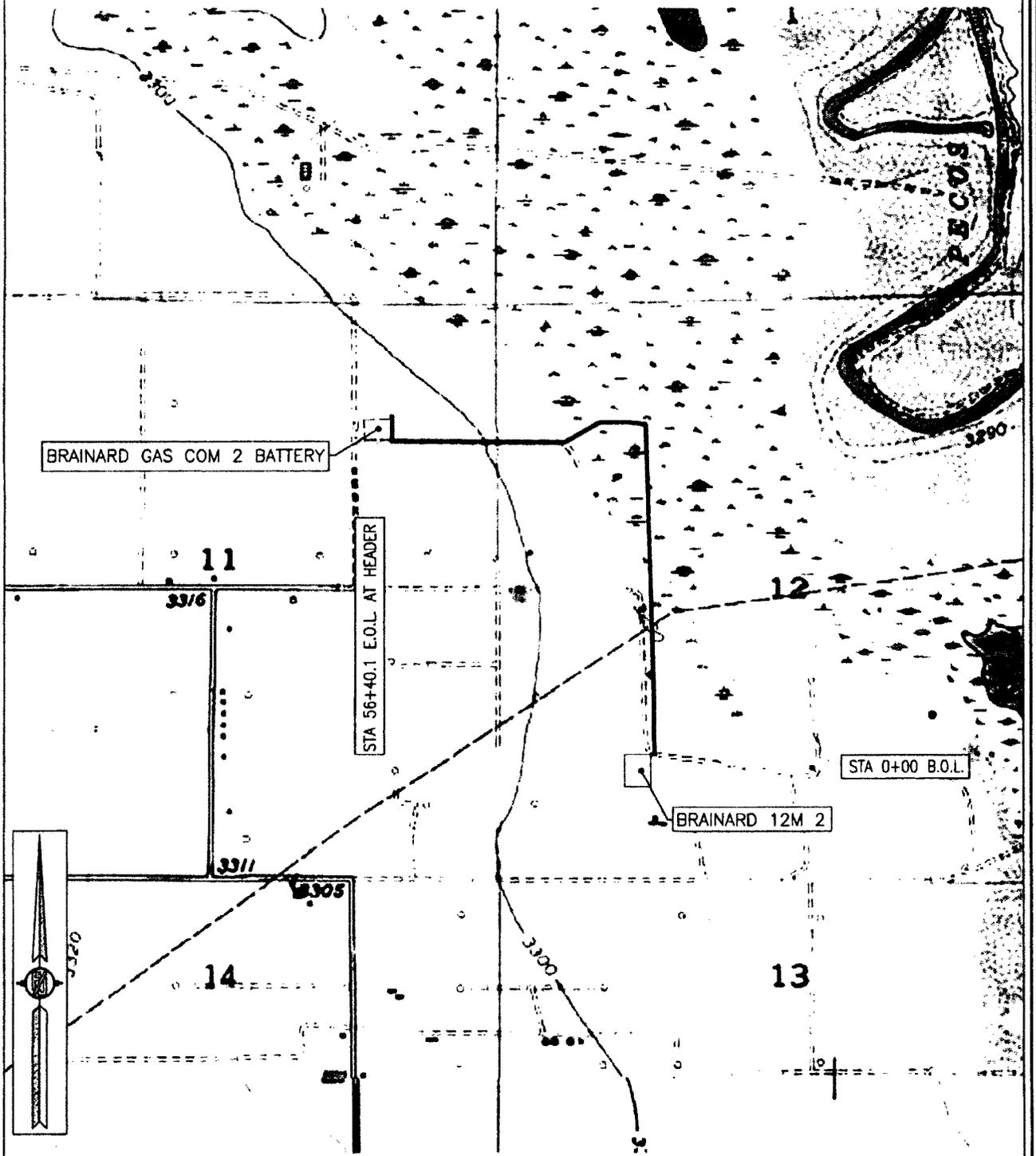
MADRON SURVEYING INC. CARLSBAD, NEW MEXICO

SURVEY NO. 5291

FLOWLINE PLAT

TWO 3" POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE BRAINARD 12M 2 TO THE BRAINARD GAS COM 2 BATTERY

LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTIONS 12, 11, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JULY 6, 2017



SHEET: 5-6

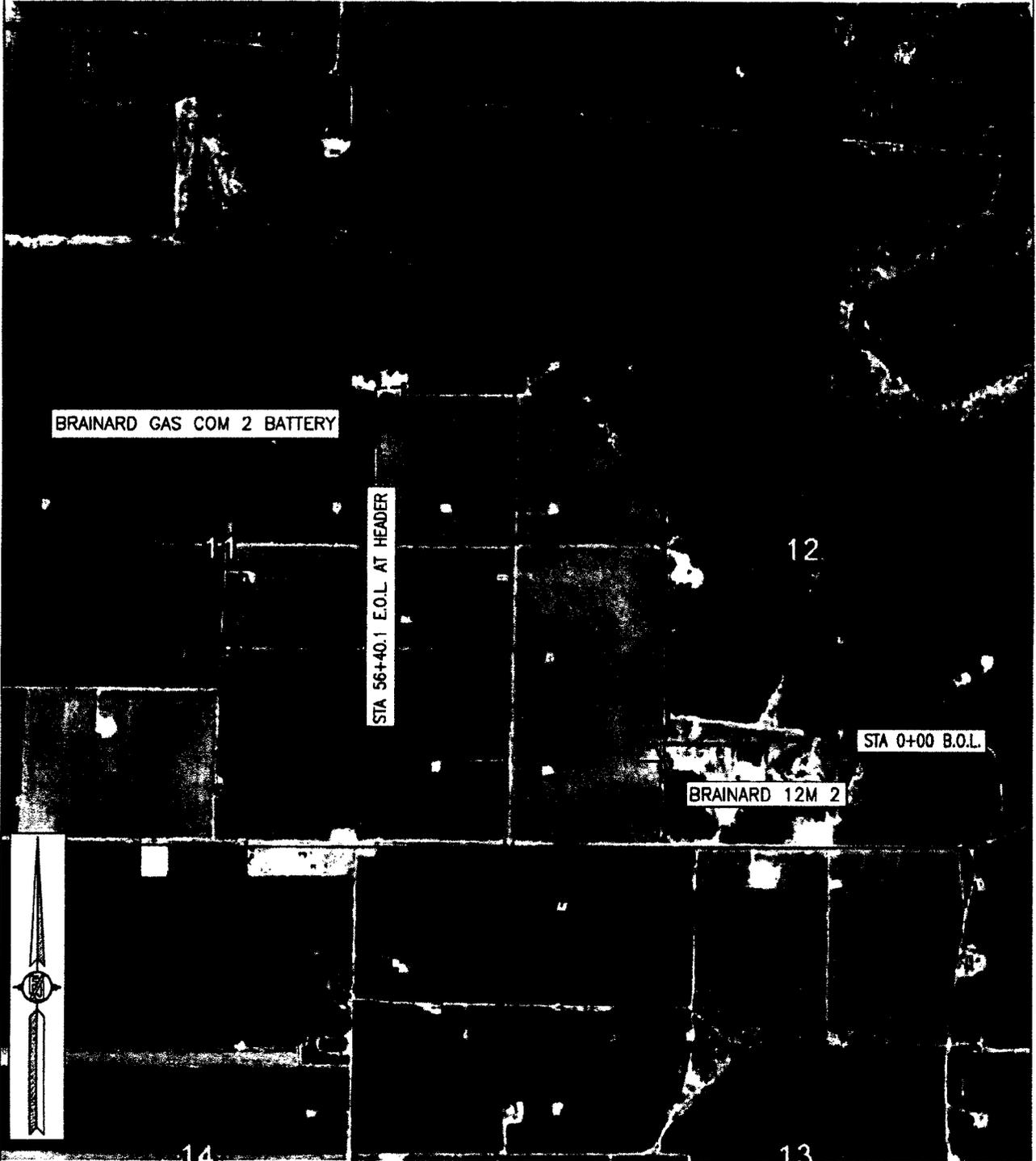
SURVEY NO. 5291

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

FLOWLINE PLAT

**TWO 3" POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE BRAINARD 12M 2 TO THE
BRAINARD GAS COM 2 BATTERY**

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTIONS 12, 11, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JULY 6, 2017**



SHEET: 6-6

SURVEY NO. 5291

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

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

**Brainard 12M #2
990' FSL 1295' FWL
(M) 12-18S-26E
Eddy County, NM**

1. The elevation of the unprepared ground is 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 4600' and run casing. This equipment will be rigged down and the well will be completed with a workover rig
4. Well will be drilled to a total proposed depth of 4600' MD.

5. Estimated tops of geologic markers:

	MD	TVD
Quaternary – Alluvium	Surface	Surface
Yates		NA
7 Rivers		NA
Queen		316
Grayburg		742
Premier		938
San Andres		992
Glorieta		2325
Yeso		2410
Tubb		3838
TD		4600

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

	MD	TVD
Yates		NA
7 Rivers		NA
Queen		316
Grayburg		742
Premier		938
San Andres		992
Glorieta		2325
Yeso		2410
Tubb		3838
TD		4600

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	11"	8-5/8"	24	J-55	ST&C	1230	450	14.8	1.35	Cl C. Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl ₂
Intermediate										
Production	7-7/8"	5-1/2"	17	J-55	LT&C	4600	300	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
							600	14.8	1.33	Cl H. w/ 0.5% K ₂ O, 0.125% Cello Flake, 1% Gel

8. Proposed Mud Program is as follows

Depth	0-1230	1230-4450	4450-4600
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 Polymers 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 4600 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 well. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 10. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2024 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 10 days. An additional 14 days will be needed to complete well and to construct surface facilities.

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/Escape packs —4 packs shall be stored on the rig floor and contain sufficiently long air hoses as to not to 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	713-292-9510
	Answering Service (After Hours)	713-292-9555
	Artesia, NM Office	575-748-9724
	Roswell, NM	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 Commission ("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

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 8 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

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.

Lime Rock Resources II-A, L.P.

Brainard 12M #2

Unit M, S12-T18S-R26E, 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 attache

Cuttings and associated liquids will be hauled to a State regulated third party disposal site (CRI or Controlled Recc Inc.). The disposal site permit is DFP = #R916

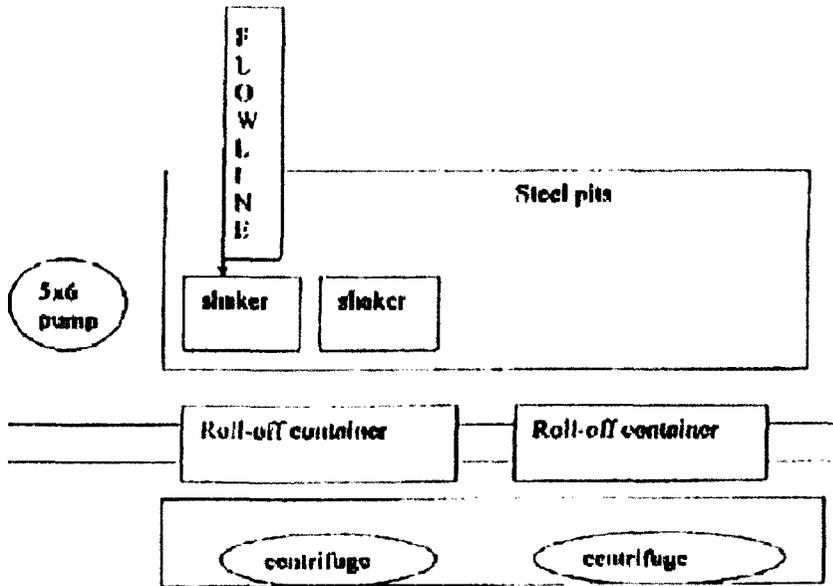
2- (250 bbl) tanks to hold fluid
2-CRI bins with track system
2-500 bbl frac tanks with fresh water
2-500 bbl frac tanks for brine water

Operations:

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

Closure:

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



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

TOMMY WILSON



**CLOSED LOOP
SPECIALTY**

Office: 575.746.1689

Cell: 575.748.6367