

District IV

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Road, Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101

May 27, 2004

Oil Conservation Division

1220 South St. Francis Drive

Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORTMonth - Year
MAY 9 2007

OCD - ARTESIA, NM

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

Operator Name and Address REEF EXPLORATION, L.P. 508 WEST WALL, SUITE 700 MIDLAND, TX 79701		OGRID Number 246083
Property Code 36570	Property Name STATE "2"	API Number 30-015-35675
Proposed Pool 1 LIVINGSTON RIDGE; DELAWARE, SE		Proposed Pool 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
F	2	23S	31E		1980	NORTH	1980	WEST	EDDY

Proposed 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
F	2	23S	31E		1980	NORTH	1980	WEST	EDDY

Additional Well Information

Work Type Code N	Well Type Code O	Cable/Rotary R	Lease Type Code S	Ground Level Elevation 3421'
Multiple NO	Proposed Depth 8700'	Formation DELAWARE	Contractor TBO	Spud Date 06/15/07
Depth to Groundwater 950'		Distance from nearest fresh water well 1000' or more		Distance from nearest surface water 1000' or more
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/>		Pit Volume: 2000 bbls		Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>
Closed-Loop System <input type="checkbox"/>				

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48# H-40	2700' 900'	835	SURFACE
12 1/4"	8 5/8"	32# K-55	4500'	1270	SURFACE
7 7/8"	5 1/2"	17# I-80	8700'	750	4500'

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

DRL SAN ANDRES WELL TO \pm 8700'. CIRC CMT TO SURF ON 8 5/8" CSG TEST ALL SIGNIFICANT SHOWS & EVALUATE W/ADEQUATE LOGGING PROGRAM. ABANDONMENT, IF NECESSARY, WILL BE PERFORMED IN ACCORDANCE W/PRUDENT PRACTICES AND REGULATORY REQUIREMENTS. A DOUBLE RAM SERIES 900 BOP AND CHOKE MANIFOLD WILL BE USED FROM THE 8 5/8" CSG POINT TO TD. AFTER LOGGING AND EVALUATION AT TD, THE DECISION WILL BE MADE AS TO WHETHER OR NOT TO RUN PRODUCTION CSG. PRODUCTION CSG WILL BE 5 1/2" AND WILL BE RUN AT TD. COMPLETION WILL BE FROM PERF'S IN 5 1/2" CSG IN THE DELAWARE FORMATION

Operator to set surface casing in ahydrite section of Rustler

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature:

Printed name: GAYE HEARD

Title: AGENT

E-mail Address: oilreportsinc@oilreportsinc.com

Date: 05/10/07

Phone: 505-393-2727

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARRANT

Title:

DISTRICT II GEOLOGIST

Approval Date:

JUL 1 1 2007

Expiration Date:

JUL 1 1 2008

Conditions of Approval Attached ☐

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

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

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

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name STATE "2"	Well Number 3
OGRID No.	Operator Name REEF EXPLORATION, L.P.	Elevation 3421'

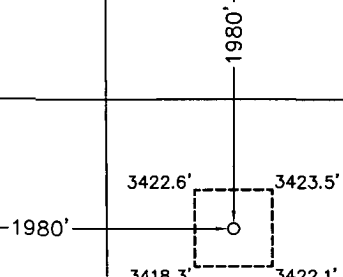
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	2	23 S	31 E		1980	NORTH	1980	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
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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

	<p><u>Plane Coordinate</u> X = 680,093.0 Y = 486,140.0 <u>Geodetic Coordinate</u> Lat. 32°20'06.60" N Long. 103°45'00.91" W (NAD '27)</p>
NOTE: 1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.	

OPERATOR CERTIFICATION

I hereby certify the 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.

Signature _____ Date _____

Printed Name _____

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

Date of Survey April 26, 2007

Signature & Seal of Professional Surveyor

W.O. Num. 2007-0513

Certificate No. MACON McDONALD 12185

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

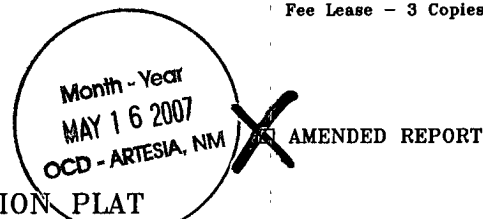
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies



WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 39380	Pool Name Livingston Ridge; Delaware, SE
Property Code	Property Name STATE "2"	Well Number 3
OGRID No.	Operator Name REEF EXPLORATION, L.P.	Elevation 3421'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	2	23 S	31 E		1980	NORTH	1980	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
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the 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.</p> <p><i>Gaye Heard</i> 5/10/07 Signature Date Gaye Heard Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>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</p> <p>April 26, 2007 Date of Survey Signature & Seal of Professional Surveyor <i>MACON McDONALD</i> NEW MEXICO 12185 W.O. Num 2007-0513 Certificate No. MACON, McDONALD</p>
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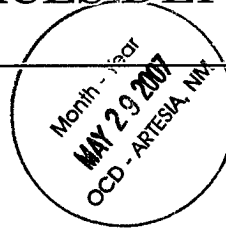
NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary



Mark E. Fesmire, P.E.

Director

Oil Conservation Division

May 23, 2007
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87504-1148
Attn: Mr. Joe Mraz or To Whom It May Concern

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: Reef Exploration, L.P.
LEASE NAME: State "2" # 3
LOCATION: SEC. 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST
1980' FNL & 1980' FWL
EDDY COUNTY, NM, NMPM

PROPOSED DEPTH: 8700'

Dear Mr. Joe Mraz or To Whom It May Concern,

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuit to the provisions of Oil Conservation Division Order R-111-P, please advise this office whether or not this application is within an established Life-of Mine Reserve area filed with and approved by your office. If not, please advise whether it is within the buffer zone established by this order.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant
District II Geologist, Artesia NMOCD

In LMR	Yes _____	No <u>X</u>
In Buffer Zone	Yes _____	No <u>X</u>

JR. mraz
5-23-07
3 PM

Comments:

Signature: **Date:** 5/23/07



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division



May 21, 2007
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221-3090

Attn: Harold Johnson-NEPA Compliance Manager

Dear Harold or To Whom It May Concern

RE: **Reef Exploration, L.P., application to drill the State "2" #3 well:
Surface location to be in Unit F, of Section 2, Township 23 South, Range 31 East,
Legal location being: 1980' FNL & 1980' FWL
Eddy County, New Mexico, NMPM.**

An application to drill (APD) for the above noted well is enclosed for your review. The State "2" # 3 lies within 1 mile of the WIPP withdraw area. Per terms of the Joint Powers Agreement between the Energy Mineral and Natural Resources Department, the DOE and other agencies, this application is provided so that you may have the opportunity to develop and submit and comments thereon. The OCD is expected to approve this permit by June 25, 2007 unless an objection is received in writing.

Please call if you have any questions or concerns regarding this matter.

Respectfully yours,

Bryan G. Arrant
NMOCD's District II Geologist
Artesia, New Mexico
505-748-1283 ext. 103

Encl:

CC: New Mexico Energy Minerals and Natural Resources Department, Anne Clark
-Coordinator of the N.M. Radioactive Waste Consultation Task Force.
New Mexico State Land Office & Minerals Division, Joe Mraz-Geologist
Reef Exploration, L.P., Gaye Heard, Agent
Well file



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

JUN 15 2007

OCD-ARTESIA

May 23, 2007

Bureau of Land Management

620 East Green St.

Carlsbad, NM 88220-6292

Attn: Mr. Craig Cranston or To Whom It May Concern

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: Reef Exploration, L.P.

LEASE NAME: State "2" # 3

LOCATION: SEC. 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST
1980' FNL & 1980' FWL
EDDY COUNTY, NM, NMPM

PROPOSED DEPTH: 8700'

Dear Mr. Craig Cranston or To Whom It May Concern,

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuit to the provisions of Oil Conservation Division Order R-111-P, please advise this office whether or not this application is within an established Life-of-Mine Reserve area filed with and approved by your office. If not, please advise whether it is within the buffer zone established by this order.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant

District II Geologist, Artesia NMOCD

In LMR Yes _____

No ☒

In Buffer Zone Yes _____

No ☒

Comments:

Signature: _____

Date: 6-11-07

J. W. MULLOY ASSOCIATES, INC.

Engineering & Consulting

508 West Wall, Suite 700

Midland, Texas 79701

Phone: (432) 687-0323

Fax: (432) 686-7224

JOHNNY MULLOY
President

May 25, 2007

Mosaic Potash Carlsbad, Inc
P.O. Box 71
Carlsbad, NM 88220

RE: Waivers

Attention: Mr. Dan Morehouse

Dear Sir:

As a representative of Reef Exploration, L.P. it is respectfully requested that waivers that would allow the drilling for Hydrocarbons in designated Potash areas be granted for the following:

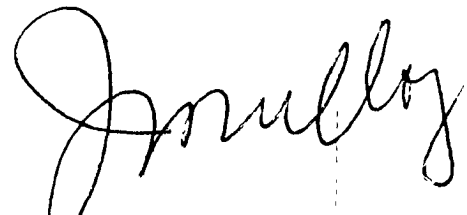
SW/4 of NE/4	Sec 2, T-23-S, R-31-E
E/2 of W/2	Sec 2, T-23-S, R-31-E

The well designation and exact location are as follows:

State "2" Well #1	1980 FNL & 1980 FEL
#2	660 FNL & 1980 FWL
#3	1980 FNL & 1980 FWL
#4	1980 FSL & 1980 FWL
#5	660 FSL & 1980 FWL

Thank you for your corporation relating to these waivers.

Yours Very Truly,



J.W. Mulloy

J. W. MULLOY ASSOCIATES, INC.

Engineering & Consulting

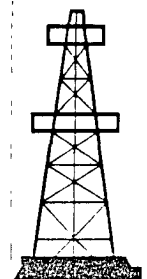
I, Dan Morehouse as representative for Mosaic Potash Carlsbad, Inc hereby waive any and all objections to the drilling of the wells listed above that will be operated by Reef Exploration, L.P.

By: _____

Date: _____

Signed: _____

Cc: Bryan Arrant



J. W. MULLOY ASSOCIATES, INC.

Engineering & Consulting

508 West Wall, Suite 700

Midland, Texas 79701

Phone: (432) 687-0323

Fax: (432) 686-7224

MOOREHEAD

MAY 29 2007

CD - 100, 200

JOHNNY MULLOY

President

May 25, 2007

State of New Mexico
Oil Conservation Division
1310 W. Grand Avenue
Artesia, New Mexico 88210

RE: H₂S Contingency Plan
Sec 1,2 & 12, T-23-S, R-31-E
Sec 36 T-22-S, R-31-E
Eddy County, New Mexico

Attention: Mr. Bryan Arrant

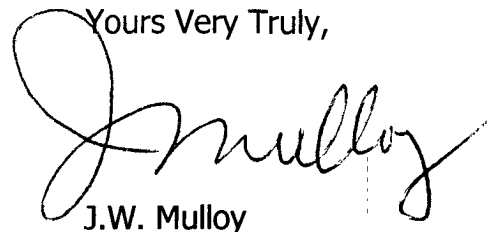
As a representative of Reef Exploration, L.P. (Ogrid # 246083) research has been conducted to determine if H₂S will be encountered while drilling the following wells:

State "2" Well #1	1980 FNL & 1980 FEL
#2	660 FNL & 1980 FWL
#3	1980 FNL & 1980 FWL
#4	1980 FSL & 1980 FWL
#5	660 FSL & 1980 FWL

It was determined that no H₂S would be encountered and therefore a contingency plan is not needed. This letter is being sent to you to satisfy the conditions of approval of the above requested permits.

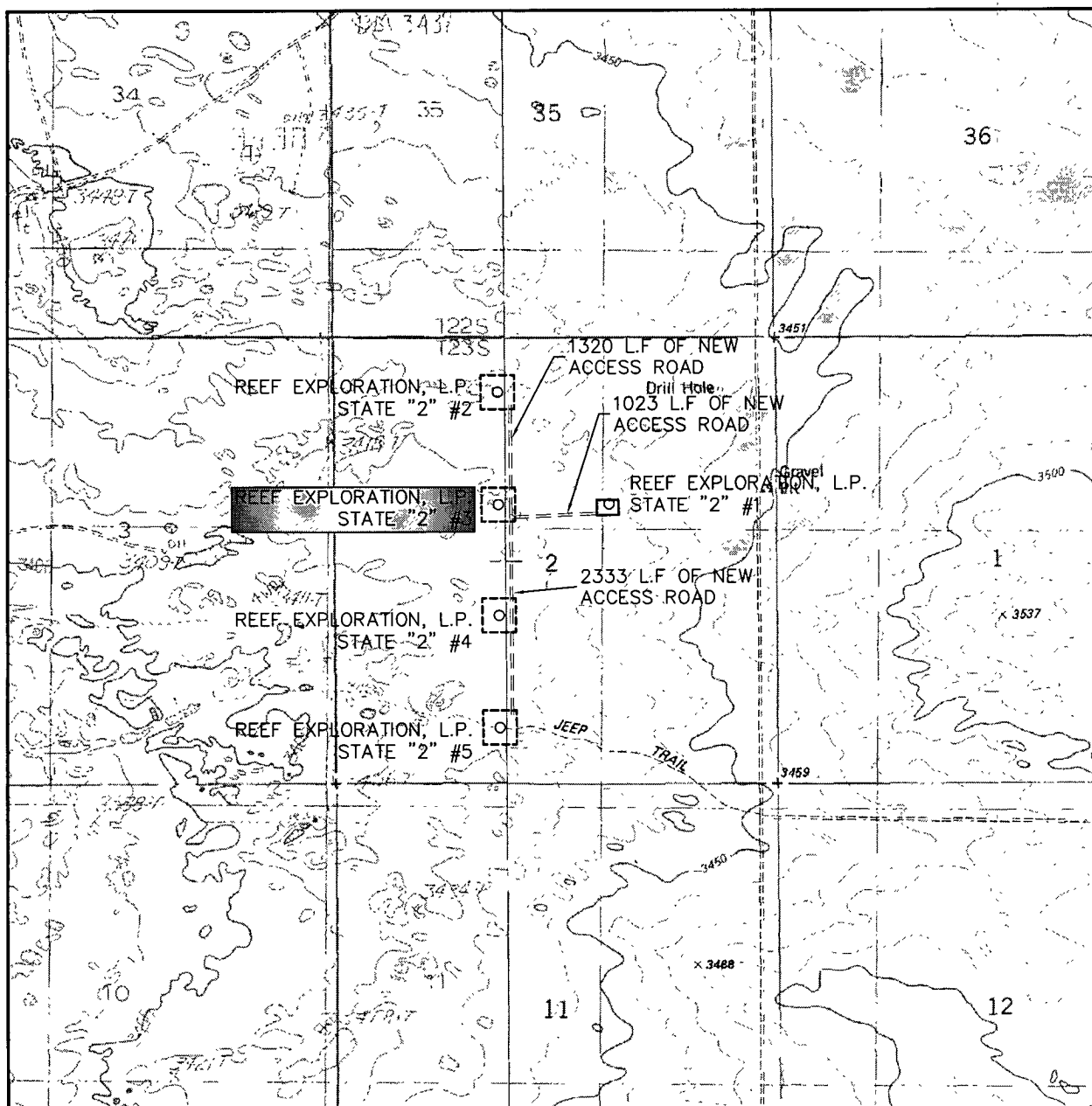
If additional data is required, please contact the undersigned at 432-687-0323.

Yours Very Truly,



J.W. Mulloy

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LOS MEDANOS - 10'

SEC. 2 TWP. 23-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 1980' FWL

ELEVATION 3421'

OPERATOR REEF EXPLORATION, L.P.

LEASE STATE "2"

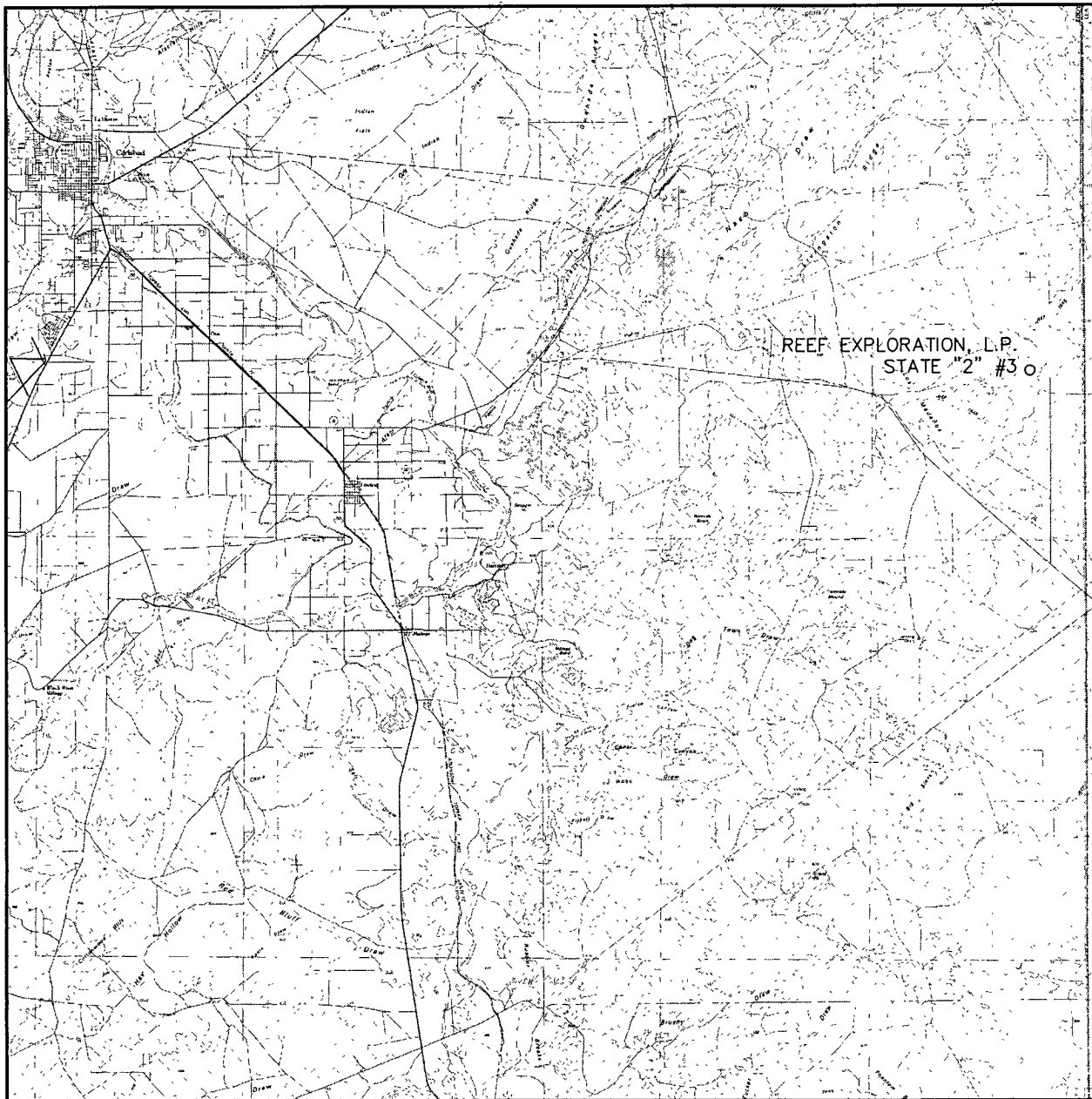
U.S.G.S. TOPOGRAPHIC MAP
LOS MEDANOS



WEST
COMPANY
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

VICINITY MAP



SCALE: 1" = 5 MILES

SEC. 2 TWP. 23-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 1980' FWL

ELEVATION 3421'

OPERATOR REEF EXPLORATION, L.P.

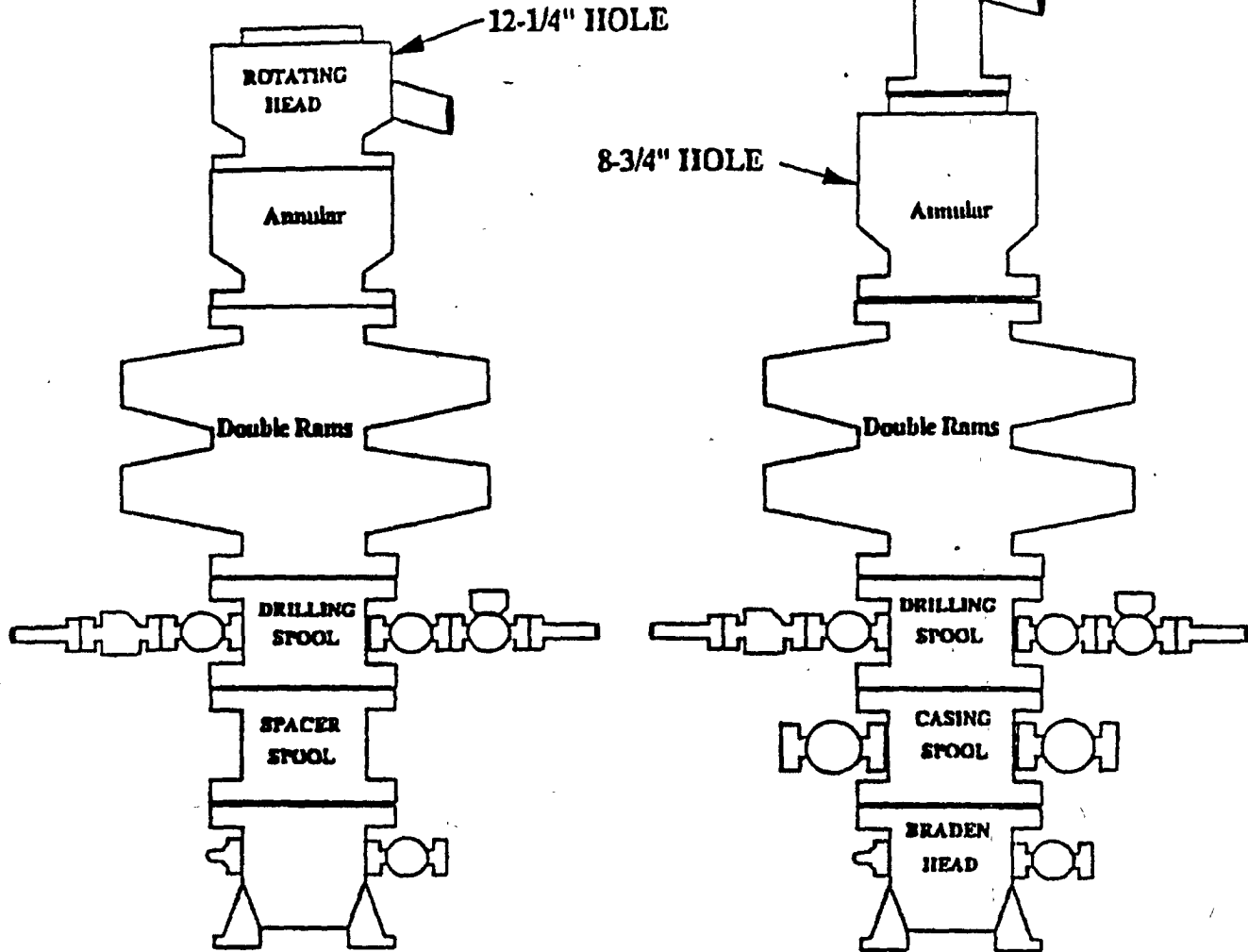
LEASE STATE "2"



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

HOPE SCHEMATIC



Choke Manifold Requirement (3000 psi WP)

