

District I
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 Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

Operator Name and Address POGO PRODUCING COMPANY P.O. BOX 10340 MIDLAND, TEXAS 79702-7340		OGRID Number 017891
API Number 30 - 025-38193		
Property Code 30175	Property Name IRON HORSE STATE	Well No. # 1
Proposed Pool 1 VACUUM -WOLFCAMP SOUTH (62360)		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
O	21	18S	35E		660'	SOUTH	1830'	EAST	LEA

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
B	21	18S	35E		660'	NORTH	1650'	EAST	LEA

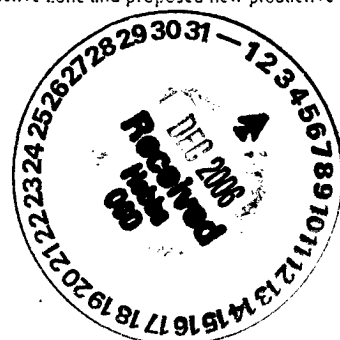
Additional Well Information				
Work Type Code N	Well Type Code O	Cable/Rotary ROTARY	Lease Type Code S	Ground Level Elevation 3918
Multiple NO	Proposed Depth MD-8229' ± TVD-4430' ±	Formation WOLFCAMP	Contractor CAPSTAR	Spud Date WHEN APPROVED
Depth to Groundwater 60' +		Distance from nearest fresh water well 1320' ±		Distance from nearest surface water PLAYA LAKE .5 Mi Northwest
Liner: Synthetic ☒ 12 mills thick Clay ☐ Pit Volume: 16M bbls Drilling Method:				
Closed-Loop System ☐ Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐				

Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	Conductor	40'	Redi-mix	Surface.
12 1/4"	9 5/8"	36#	500'	300 Sx.	Surface
8 1/2" & 7 7/8"	5 1/2"	17#	8229 ±'	1790 Sx.	Surface

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.

SEE ATTACHED SHEET

Permit Expires 1 Year From Approval
Date Unless Drilling Underway



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 NMOCDC guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐ .		OIL CONSERVATION DIVISION	
Printed name: Joe T. Janica		Approved by: <i>Chris Williams</i> OC DISTRICT SUPERVISOR GENERAL MANAGER	
Title: Agent		Expiration Date: DEC 06 2006	
E-mail Address: joejanica@valornet.com		Conditions of Approval Attached ☐	
Date: 12/05/06		Phone: 505-391-8503	

Iron Horse State # 1

Casing & Cement Program

Surface Casing:

12 1/4" hole drilled to 500 ft.

Set 9 5/8" 36lb J-55 LTC casing @ 500 ft.

Cement lead= 150 sks "C" 65:35:6-cmt:poz:gel mixed @ 12.8 ppg

Cement Tail = 150 sks "C" w/ 2% cacl₂ mixed @ 14.8 ppg.

Cement calculated to circulate w/ 200% excess

Production Casing:

8 1/2" hole drilled to ± 4740 ft. End of Curve. KOP @ ±3923 ft.

Lateral portion drilled with 7 7/8" bit to total depth ± 8229 ft.

Set 5 1/2" 17# J-55 LTC & BTC to total depth.

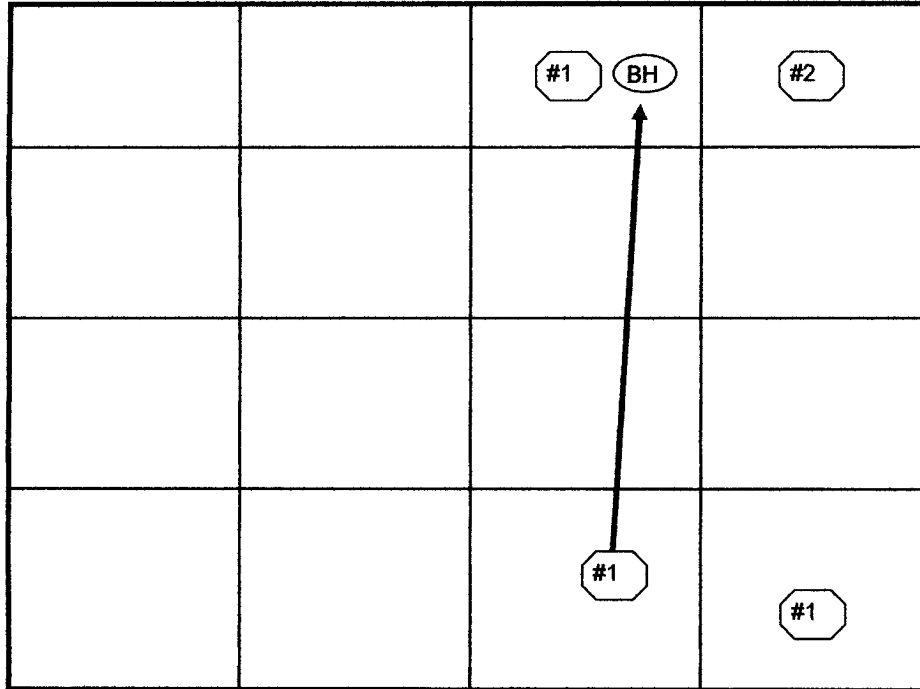
Buttress run through curve and in lateral.

Cement 5 1/2" casing w/ 1790 sks "C" w/ 8pps Gilsonite & 1/4 pps cello flake 14.1 ppg

cement calculated to circulate w/ 150% excess.

Iron Horse Groupings

Sec 21, T-18-S, R-35-E, Lea County, New Mexico



Well Name	Legal Location in 34	Depth and Strata	Current Prod Zone
Iron Horse State # 2	660 FSL & 1830 FEL	4470 Queen Horizontal	Proposed
Sinclair State # 2	660 FNL & 660 FEL	11,765 Devonian	P&A'd
Honeysuckle # 1	660 FNL & 2084 FEL	11,815 Devonian	Wolfcamp
Reeves 21 State # 1	330 FSL & 660 FEL	4515 Queen	Producing Oil well
Eureka 21 State # 1	740 FNL & 660 FEL	Proposed 15,000 McKee	Not Drilled

Pogo

Chesapeake

Cameron C

Pogo

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LONG's METHOD OF SURVEY COMPUTATION**OBLIQUE CIRCULAR ARC INTERPOLATION**

0	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

3 D DISTANCE BETWEEN STATION A AND STATION B

DISTANCE TABLE

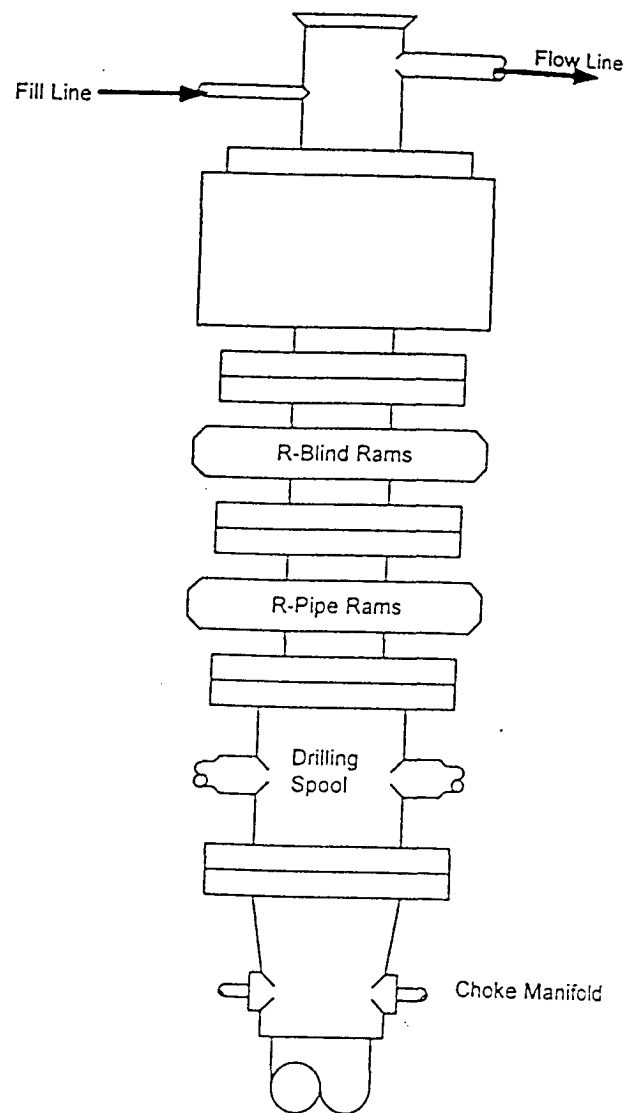
STATION A	STATION B
0.00	ft

TABLE OF SURVEY STATIONS

Calculator =

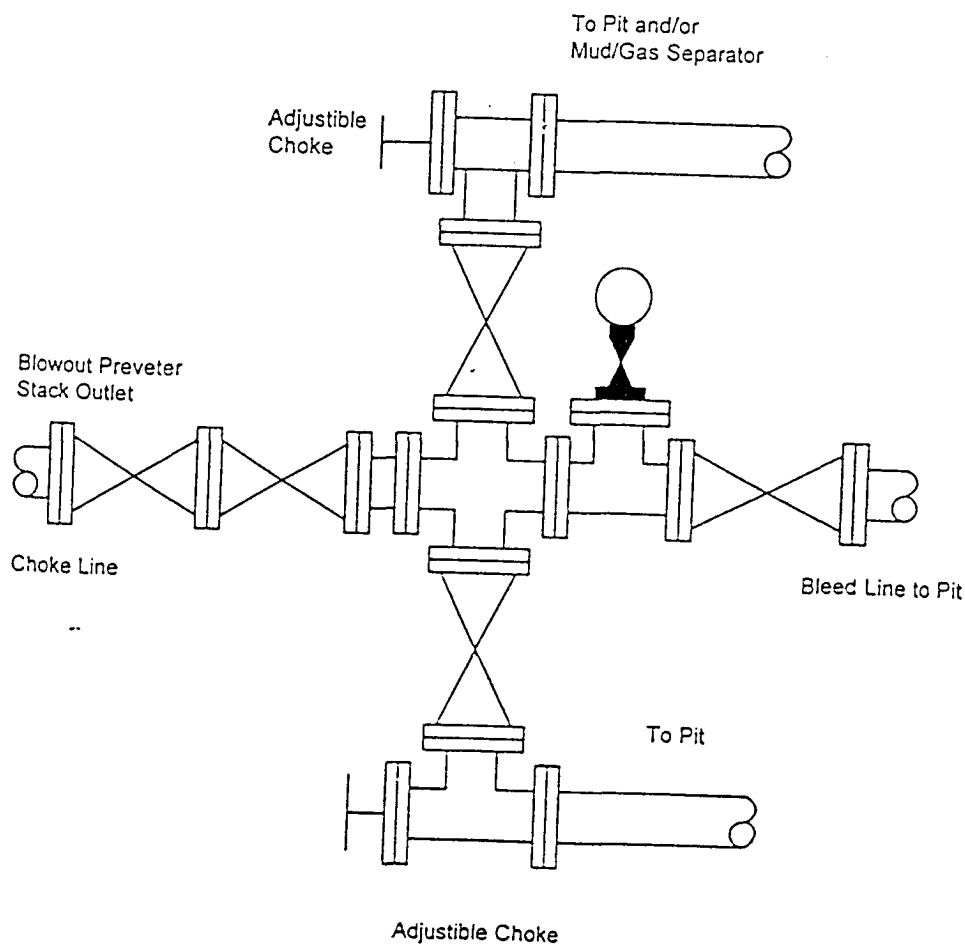
STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+S- ft	E+W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	3993.00	3993.00	0.00	0.00	-
2	100	12	2.602562	4093.00	4092.27	10.42	0.47	12.00
3	100	24	2.602562	4193.00	4187.20	41.24	1.87	12.00
4	100	36	2.602562	4293.00	4273.65	91.09	4.14	12.00
5	100	48	2.602562	4393.00	4347.83	157.82	7.17	12.00
6	100	60	2.602562	4493.00	4406.50	238.49	10.84	12.00
7	100	72	2.602562	4593.00	4447.10	329.58	14.98	12.00
8	100	84	2.602562	4693.00	4467.85	427.12	19.41	12.00
9	50	90.6883	2.602562	4743.00	4470.16	476.98	21.68	13.38
10	100	90.6883	2.602562	4843.00	4468.96	576.87	26.22	0.00
11	100	90.6883	2.602562	4943.00	4467.76	676.76	30.76	0.00
12	100	90.6883	2.602562	5043.00	4466.56	776.65	35.30	0.00
13	100	90.6883	2.602562	5143.00	4465.36	876.54	39.84	0.00
14	100	90.6883	2.602562	5243.00	4464.16	976.43	44.38	0.00
15	100	90.6883	2.602562	5343.00	4462.96	1076.32	48.92	0.00
16	100	90.6883	2.602562	5443.00	4461.76	1176.21	53.46	0.00
17	100	90.6883	2.602562	5543.00	4460.55	1276.10	58.00	0.00
18	100	90.6883	2.602562	5643.00	4459.35	1375.99	62.54	0.00
19	100	90.6883	2.602562	5743.00	4458.15	1475.88	67.09	0.00
20	100	90.6883	2.602562	5843.00	4456.95	1575.77	71.63	0.00
21	100	90.6883	2.602562	5943.00	4455.75	1675.66	76.17	0.00
22	100	90.6883	2.602562	6043.00	4454.55	1775.55	80.71	0.00
23	100	90.6883	2.602562	6143.00	4453.35	1875.44	85.25	0.00
24	100	90.6883	2.602562	6243.00	4452.15	1975.33	89.79	0.00
25	100	90.6883	2.602562	6343.00	4450.94	2075.22	94.33	0.00
26	100	90.6883	2.602562	6443.00	4449.74	2175.11	98.87	0.00
27	100	90.6883	2.602562	6543.00	4448.54	2275.00	103.41	0.00
28	100	90.6883	2.602562	6643.00	4447.34	2374.88	107.95	0.00
29	500	90.6883	2.602562	7143.00	4441.33	2874.33	130.65	0.00
30	500	90.6883	2.602562	7643.00	4435.33	3373.78	153.35	0.00
31	500	90.6883	2.602562	8143.00	4429.32	3873.23	176.06	0.00
32	86	90.6883	2.602562	8229.00	4428.29	3959.13	179.96	0.00
33								
34								
35								
36								
37								

BLOWOUT PREVENTER SYSTEM



Type 900 Series
3000 psi WP

Choke Manifold Assembly for 3M WP System



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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 3D-025-38193	Pool Code 62360	Pool Name VACUUM-WOLFCAMP SOUTH
Property Code 36175	Property Name IRON HORSE STATE	Well Number 1
OGRID No. 017891	Operator Name POGO PRODUCING COMPANY	Elevation 3918'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	21	18 S	35 E		660	SOUTH	1830	EAST	LEA

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
B	21	18 S	35 E		660	NORTH	1650	EAST	LEA

Dedicated Acres 160	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

BOTTOMHOLE LOCATION LAT - N32°44'18.9" LONG - W103°27'32.8" (NAD-83) PROJECT AREA → PRODUCING AREA → SURFACE LOCATION LAT - N32°43'39.8" LONG - W103°27'35.3" (NAD-83)	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 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. <i>Joe T. Janica</i> Signature Date 12/05/06 Joe T. Janica Printed Name Agent 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. DECEMBER 01, 2006 Date Surveyed Signature & Seal of Professional Surveyor GARY L. JONES Professional Surveyor No. 17457 Certificate No. 7977 BASIN SURVEYS
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**SECTION 21, TOWNSHIP 18 SOUTH, RANGE 35 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.**

150' NORTH
OFF SET
3917.6'
□

**POGO PRODUCING COMPANY
IRON HORSE STATE #1**

150' WEST
OFF SET □
3918.0'

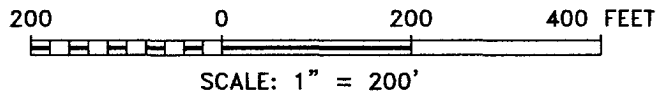
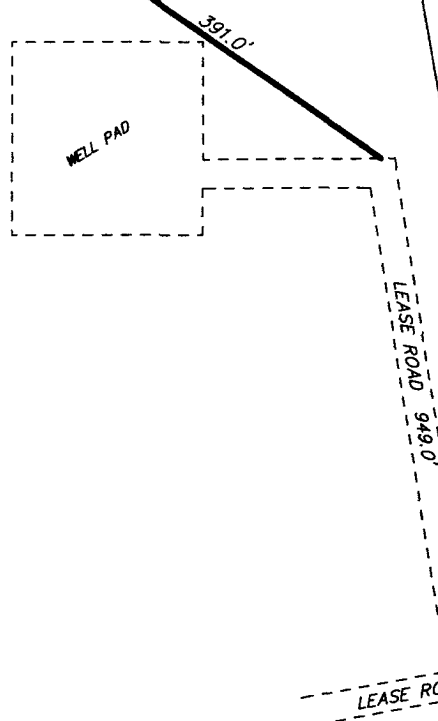
ELEV. - 3918'

150' EAST
□ OFF SET
3917.9'

Lat.-N 32°43'39.8"
Long.-W 103°27'35.3"
(NAD-83)

□
150' SOUTH
OFF SET
3917.7'

PROPOSED LEASE ROAD 956.6'



Directions to Location:

FROM THE JUNCTION OF STATE HWY 238 AND STATE HWY 529, PROCEED NORTHWEST ON STATE HWY 238 FOR 2.5 MILES TO LEASE ROAD, ON LEASE ROAD PROCEED WEST THENCE IMMEDIATELY NORTHWEST FOR 949.0 FEET TO PROPOSED LEASE ROAD.

POGO PRODUCING CO.

REF: IRON HORSE STATE #1 / Well Pad Topo

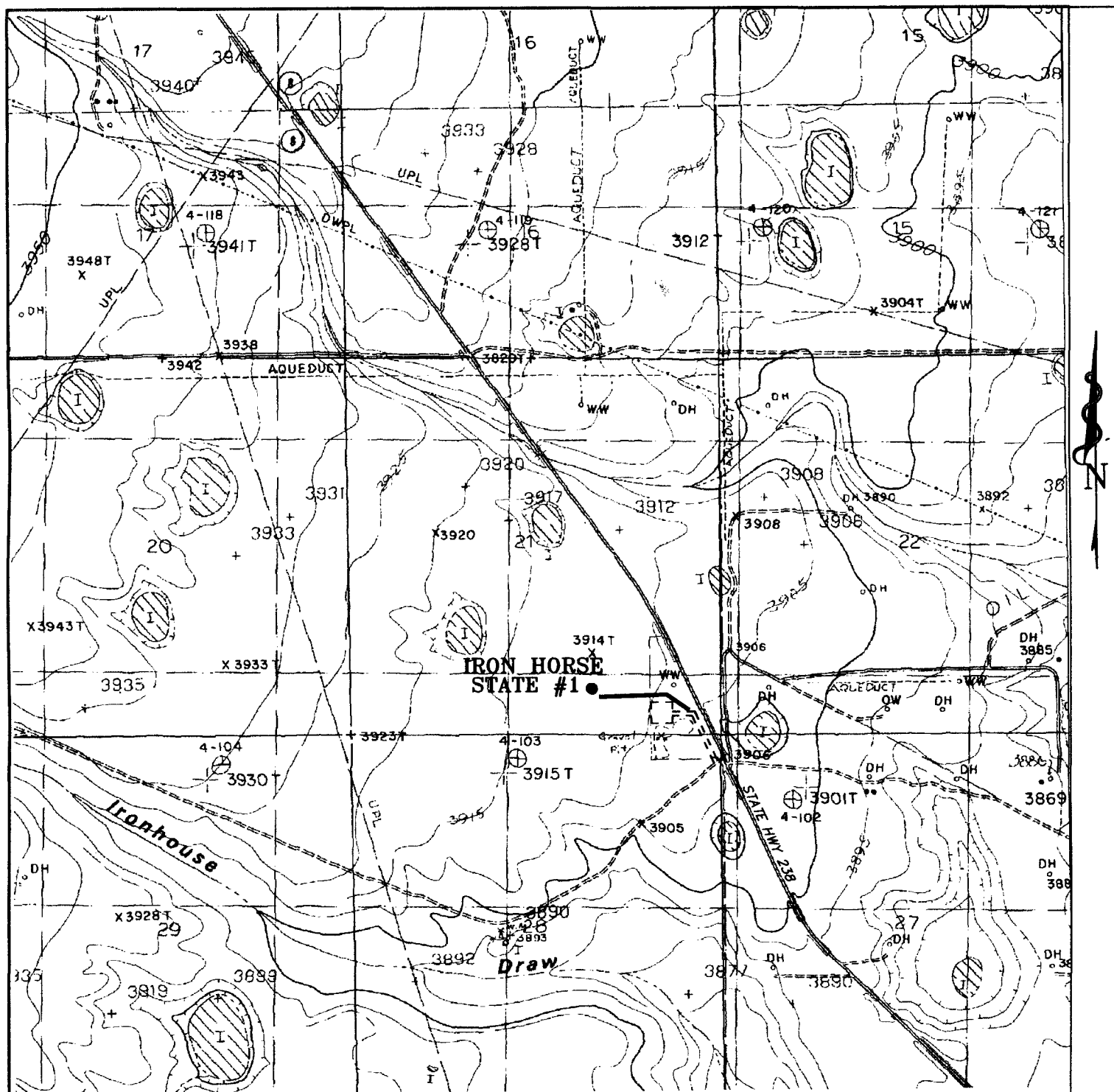
THE IRON HORSE STATE No. 1 LOCATED 660' FROM THE SOUTH LINE AND 1830' FROM THE EAST LINE OF SECTION 21, TOWNSHIP 18 SOUTH, RANGE 35 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 17457 Drawn By: J. SMALL

Date: 12-04-2006 Disk: JMS 17457W

Survey Date: 12-01-2006 Sheet 1 of 1 Sheets



IRON HORSE STATE #1

Located at 660' FSL and 1830' FEL
 Section 21, Township 18 South, Range 35 East,
 N.M.P.M., Lea County, New Mexico.

**basin
surveys**

focused on excellence
in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basinsurveys.com

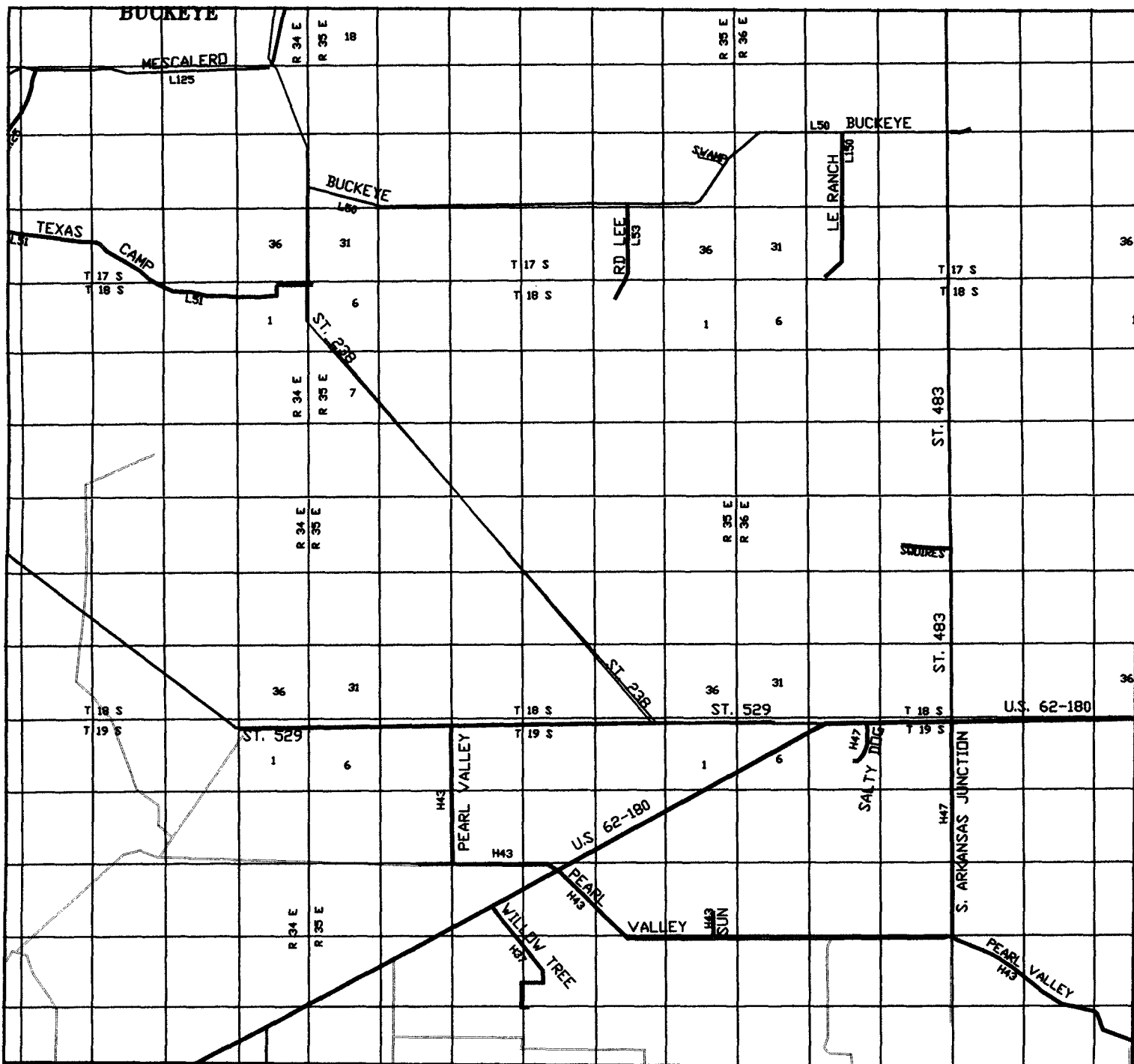
W.O. Number: JMS 17457T

Survey Date: 12-01-2006

Scale: 1" = 2000'

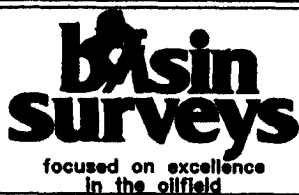
Date: 12-04-2006

**POGO
PRODUCING
COMPANY**



IRON HORSE STATE #1

Located at 660' FSL and 1830' FEL
 Section 21, Township 18 South, Range 35 East,
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
basinsurveys.com

W.O. Number: JMS 17457T

Survey Date: 12-01-2006

Scale: 1" = 2 MILES

Date: 12-04-2006

POGO
 PRODUCING
 COMPANY