

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMLC061616A
2. Name of Operator BOPCO LP		6. If Indian, Allottee or Tribe Name
3a. Address P O BOX 2760 MIDLAND, TX 79702		7. If Unit or CA/Agreement, Name and/or No. 891000303X
3b. Phone No. (include area code) Ph: 432-221-7341		8. Well Name and No. POKER LAKE UNIT 348H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 3 T25S R30E SWSE 814FSL 1630FEL 32.154556 N Lat, 103.865008 W Lon		9. API Well No. 30-015-38669-00-X1
		10. Field and Pool, or Exploratory POKER LAKE
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOPCO, L.P. respectfully requests to alter PBHL to 660? FSL, 2,336? FWL, Sec. 1, T25S-R30E. Please see attached survey plat for reference.

BOPCO, L.P. respectfully requests to change the set depth of the 7?, 26#, HCP-110, BTC casing string to 11,623? MD (11,411? TVD). The string will be cemented in one stage to 500? above the window in the 9-5/8?, 53.50#, HCL-80, LTC casing string. A 4-1/2?, 13.50#, HCP-110, BTC liner will be ran to 20,260? (11,694? TVD) with TOL at 11,573? MD inside of a 6-1/8? hole. Please see attached, current well plan for reference. Updated cement volumes are below.

Accepted for record
NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 03 2014 10-6-14

RECEIVED

Verbal given on 9/26/14 by JAM ~ COAs attached from verbal

14. I hereby certify that the foregoing is true and correct. Electronic Submission #266734 verified by the BLM Well Information System For BOPCO LP, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER MASON on 09/30/2014 (14JAM0414SE)	
Name (Printed/Typed) CHRIS GIESE	Title DRILLING ENGINEER
Signature (Electronic Submission)	Date 09/29/2014
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By _____	Title _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office _____

APPROVED
SEP 30 2014
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

DISTRICT I
1026 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6181 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3489 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name Corral Canyon (Wolfcamp)
Property Code 306402	Property Name POKER LAKE UNIT	Well Number 348H
OGRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3321'

Surface Location

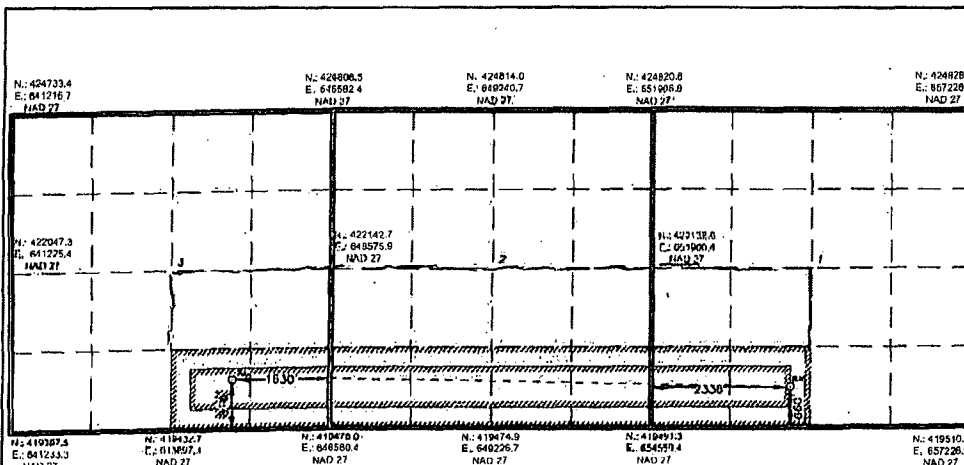
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	3	25 S	30 E		814	SOUTH	1630	EAST	EDDY

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
N	1	25 S	30 E		660	SOUTH	2336	WEST	EDDY

Dedicated Acres 640	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



SURFACE LOCATION
Lat - N 32°09'16.40"
Long - W 103°51'54.03"
NMSPC - N 420264.309
E 644935.227
(NAD-27)

**PROPOSED BOTTOM
HOLE LOCATION**
Lat - N 32°09'14.85"
Long - W 103°50'05.91"
NMSPC - N 420149.1
E 654230.3
(NAD-27)

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.

Todd Carpenter 9-26-14
Signature Date

Todd Carpenter

Printed Name

Bcarpenter@basspc.com

Email Address

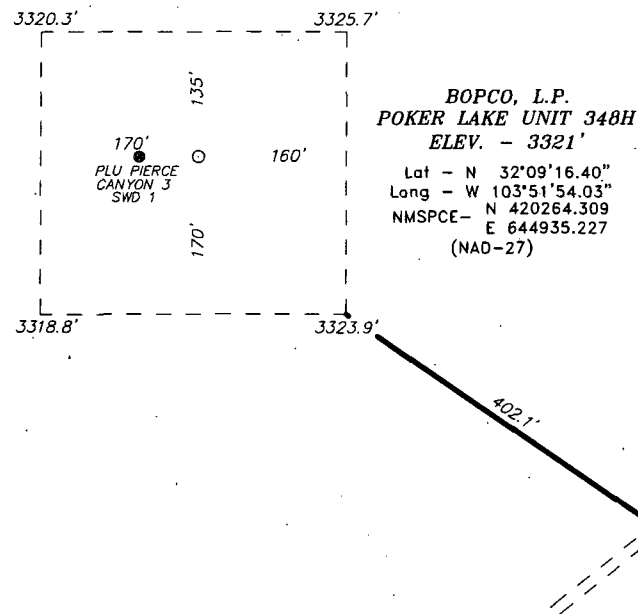
SURVEYOR CERTIFICATION

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.

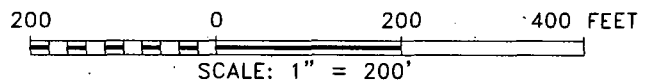
ALAN L. JONES
Date Surveyed
Signature & Seal of Professional Surveyor
Certificate No. 7977
BASIN SURVEYS

0' 1500' 3000' 4500' 6000'
SCALE: 1" = 3000'
WO. Num.: 25011

SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



MALAGA, NM IS ±13 MILES TO THE NORTHWEST OF LOCATION.



BOPCO, L.P.

REF: POKER LAKE UNIT 348H, / WELL PAD TOPO

THE POKER LAKE UNIT 348H LOCATED 814'

FROM THE SOUTH LINE AND 1630' FROM THE EAST LINE OF

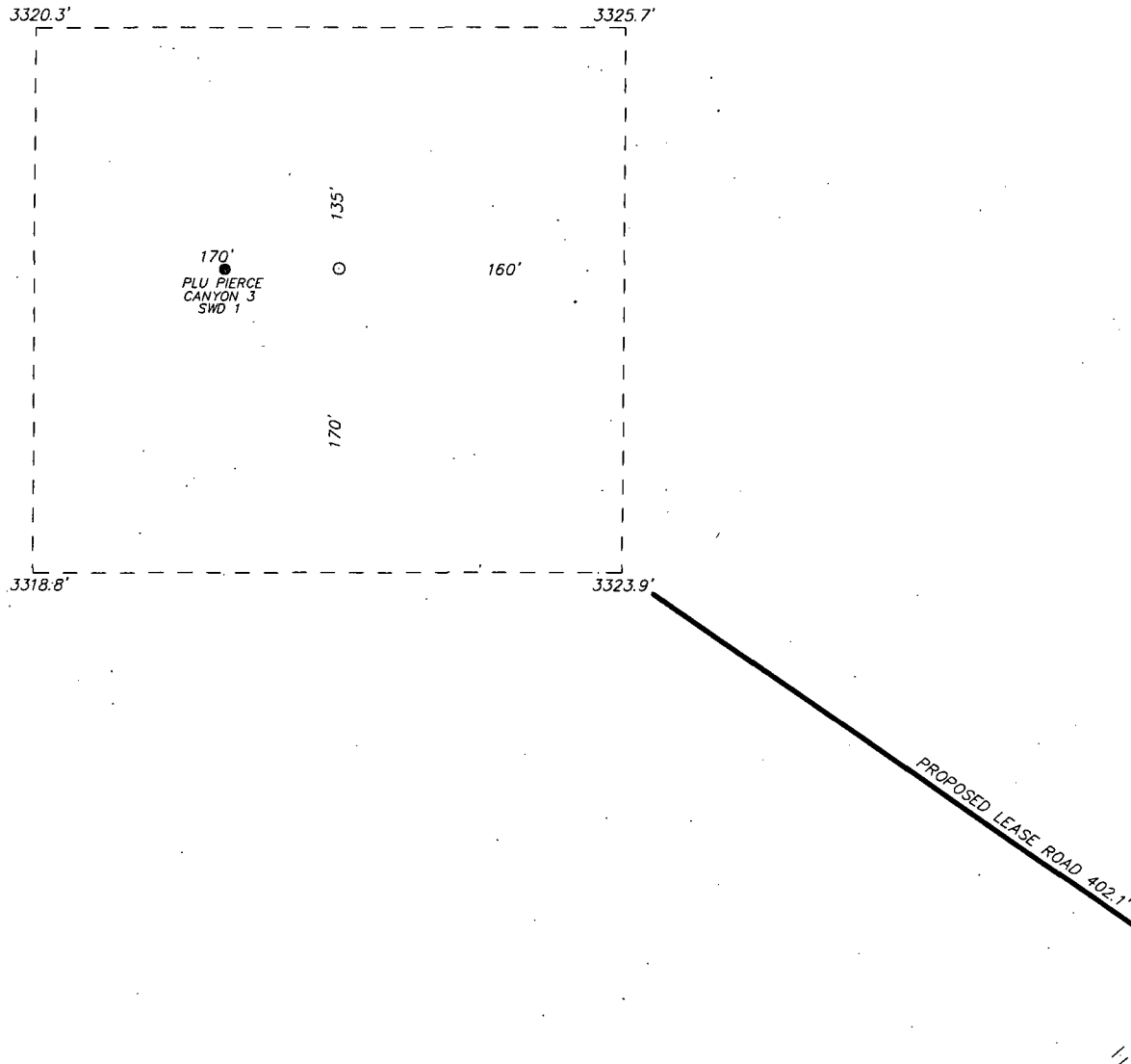
SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

basin
surveys

P.O. Box 1786 (575) 393-7316 - Office
1120 N. West County Rd. (575) 392-2206 - Fax
Hobbs, New Mexico 88241 basinsurveys.com

SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



100 0 100 200 FEET
SCALE: 1" = 100'

BOPCO, L.P. 

REF: POKER LAKE UNIT 348H / WELL PAD TOPO

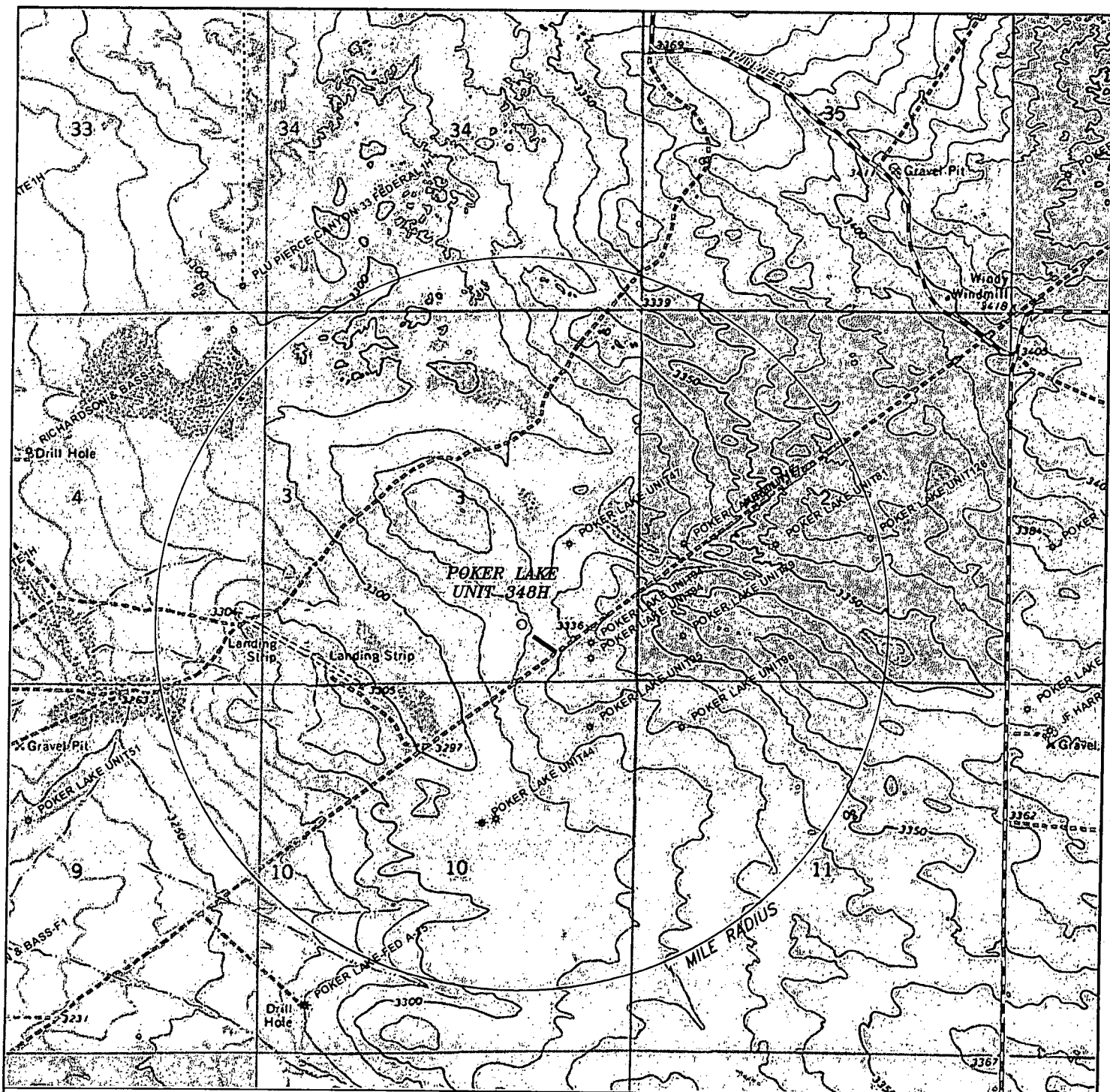
THE POKER LAKE UNIT 348H LOCATED 814'

FROM THE SOUTH LINE AND 1630' FROM THE EAST LINE OF
SECTION 3, TOWNSHIP 25 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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W.O. Number: 36071 Drawn By: J. SMALL Date: 08-22-2011 Survey Date: 08-18-2011 Sheet 1 of 1 Sheets



POKER LAKE UNIT 348H

Located 814' FSL and 1630' FEL
 Section 3, Township 25 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

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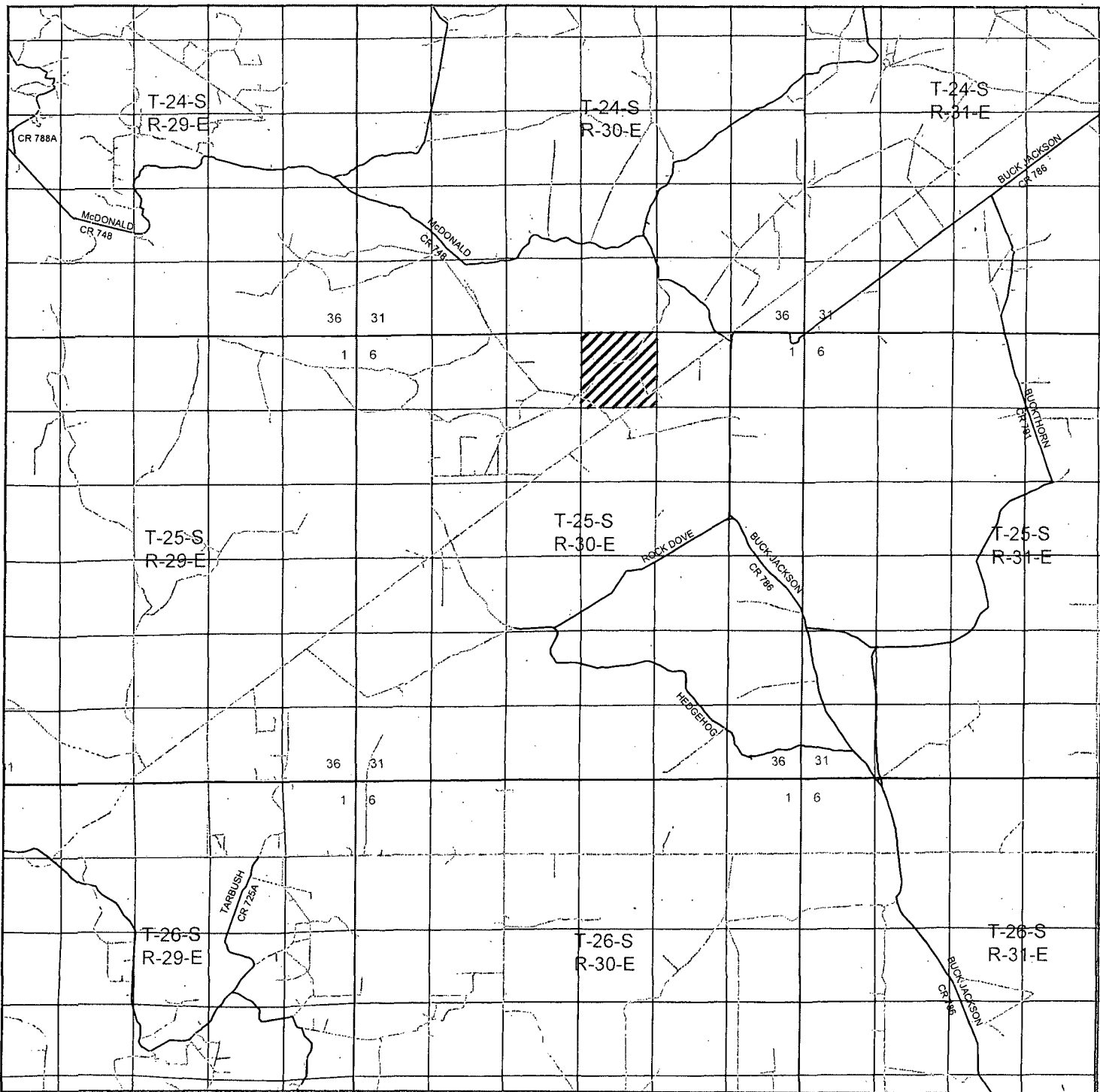
0' 1000' 2000' 3000' 4000'
 SCALE: 1" = 2000'

W.O. Number: JMS 25011

Survey Date: 08-18-2011

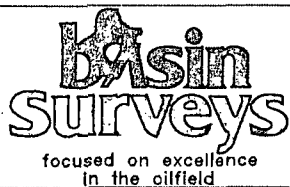
YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND

BOPCO, L.P.



POKER LAKE UNIT 348H

Located 814' FSL and 1630' FEL
 Section 3, Township 25 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.



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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

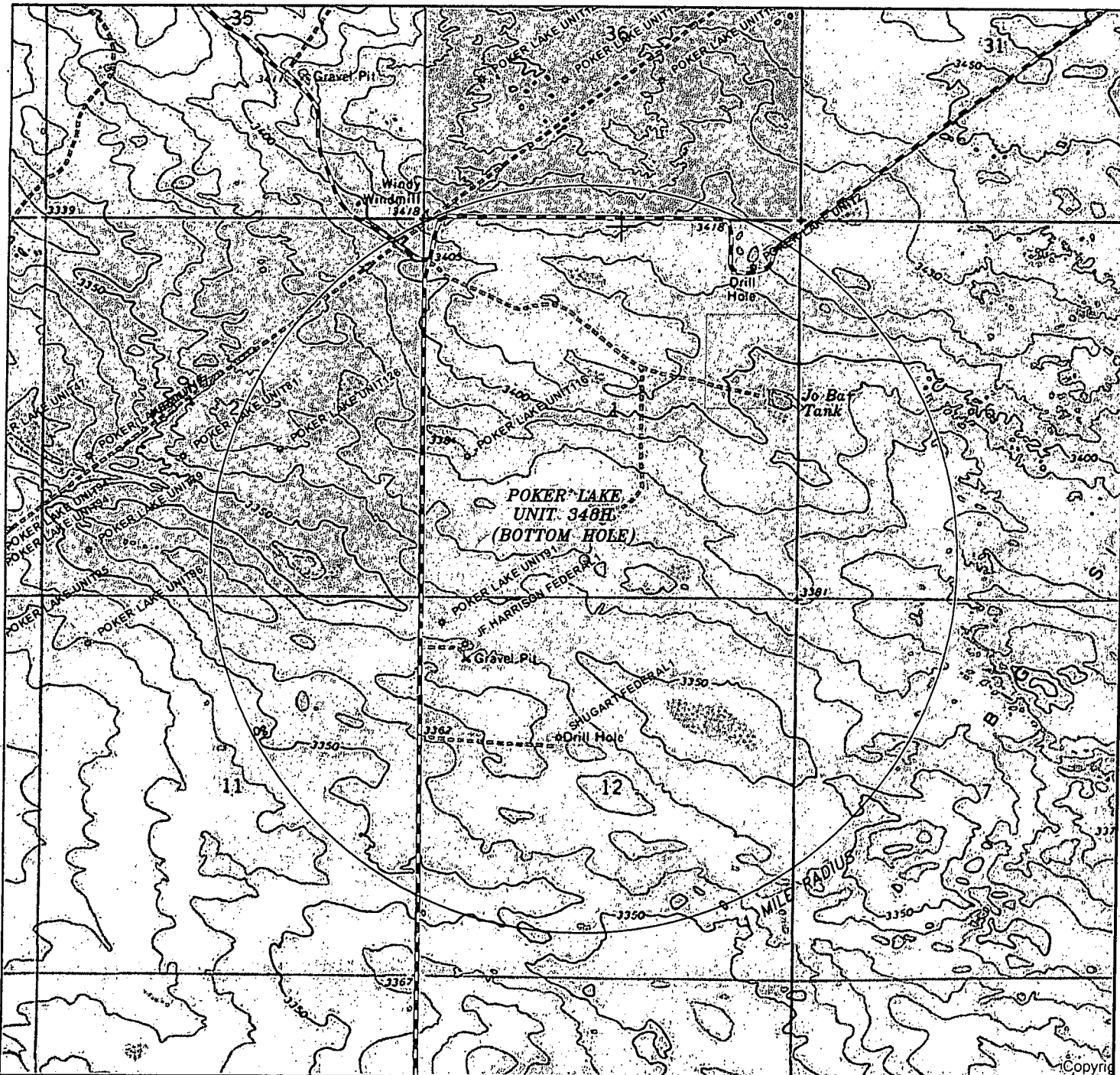
W.O. Number: JMS 25011

Survey Date: 08-18-2011

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND



BOPCO, L.P.



POKER LAKE UNIT 348H (BOTTOM HOLE)
 Located 660' FSL and 2336' FWL
 Section 2, Township 25 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

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0' 1000' 2000' 3000' 4000'

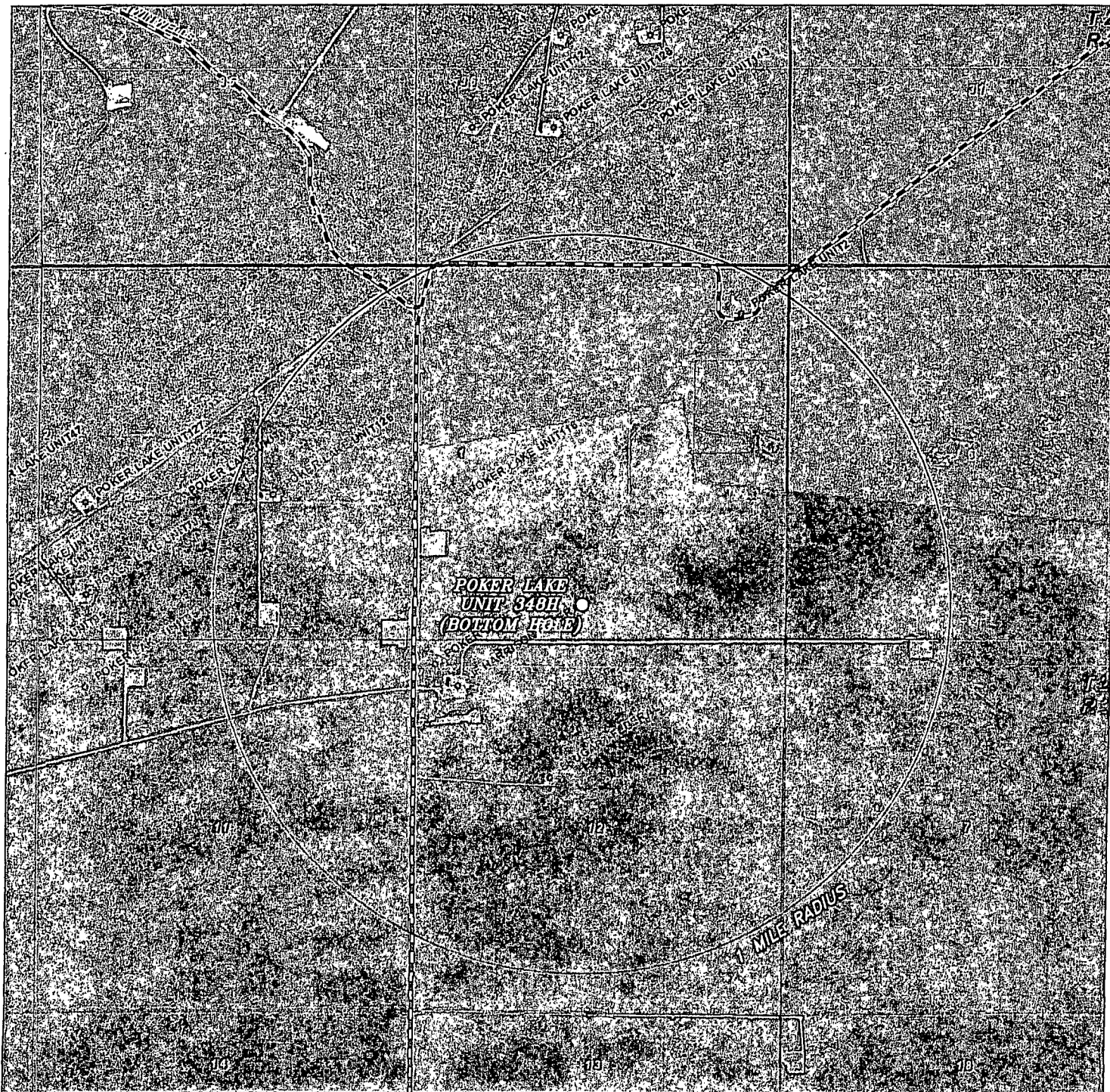
SCALE: 1" = 2000'

W.O. Number: JMS 25011

Survey Date: 08-18-2011

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND

BOPCO, L.P.



POKER LAKE UNIT 348H (BOTTOM HOLE)
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0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

W.O. Number: JMS 25011

Survey Date: 08-18-2011

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND

BOPCO, L.P.

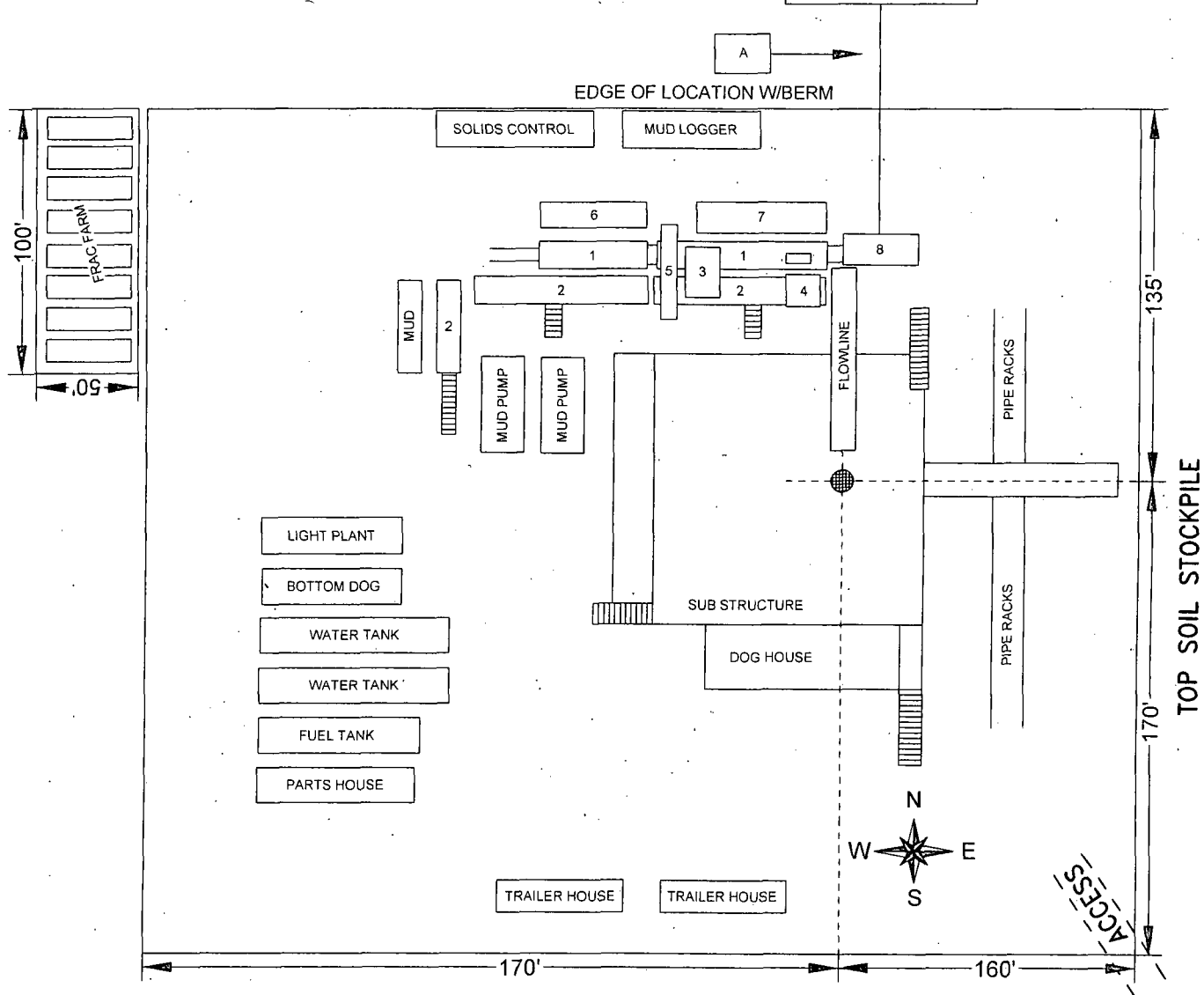
EXHIBIT "D"

RIG LAYOUT SCHEMATIC
INCLUSIVE OF CLOSED-LOOP DESIGN PLAN

SOLIDS CONTROL EQUIPMENT LEGEND

- | | |
|-----------------------------------|--------------------|
| 1) ROLL OFF BIN | 5) CENTRIFUGE |
| 2) STEEL TANK | 6) DEWATERING UNIT |
| 3) MUD CLEANER | 7) CATCH TANK |
| 4) SHAKER | 8) CHOKE MANIFOLD |
| A) BLEED LINE FROM CHOKE MANIFOLD | |

FLARE PIT 150' AWAY
FROM LOCATION IN H2S
AREA, 100' AWAY FROM
LOCATION OUTSIDE H2S



POKER LAKE UNIT 348H

Located 814' FSL and 1630' FEL
Section 3, Township 25 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

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SCALE: NONE

W.O. Number: JMS 25011

Survey Date: 08-18-2011

BOPCO, L.P.

TO: Whitney McKee
FROM: Chris Giese
SUBJECT: Sundry Notice Request for the Poker Lake Unit 348H Re-Entry
DATE: 9/26/14

BOPCO, L.P. respectfully requests to alter PBHL to 660' FSL, 2,336' FWL, Sec. 1, T25S-R30E. Please see attached survey plat for reference.

BOPCO, L.P. respectfully requests to change the set depth of the 7", 26#, HCP-110, BTC casing string to 11,623' MD (11,411' TVD). The string will be cemented in one stage to 500' above the window in the 9-5/8", 53.50#, HCL-80, LTC casing string. A 4-1/2", 13.50#, HCP-110, BTC liner will be ran to 20,260' (11,694' TVD) with TOL at 11,573' MD inside of a 6-1/8" hole. Please see attached, current well plan for reference. Updated cement volumes are below.

INTERVAL	AMOUNT SXS	FT of FILL	TYPE	GAL/SX	PPG	FT3/SX
7" Production						
Primary: 8,365'- 11,623'	425	3,258	VersaCem "H" + 0.5% Halad-344 + 0.40% CFR-3 + 1 pps Salt	8.76	13.00	1.67
4-1/2" Liner						
Primary: 11,573'- 20,260'	880	8,687	VersaCem "H" + .5% LAP-1 + 0.3% CFR-3 + 0.5 pps D-Air 5000 + 0.1% FWCA + 0.1% HR-601	5.49	14.5	1.21

cc: Whitney McKee

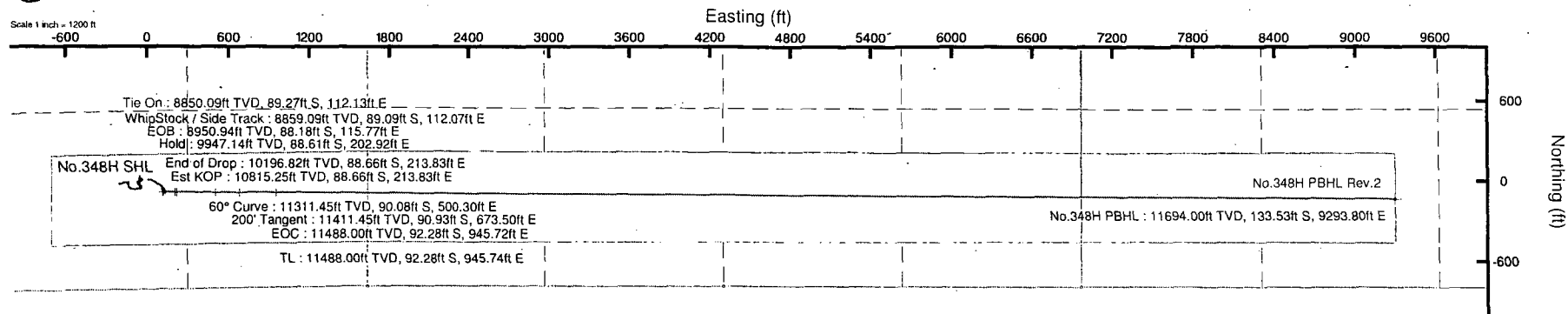


WTD - West Texas Division

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: PLU Pad (348H, PC3 SWD)

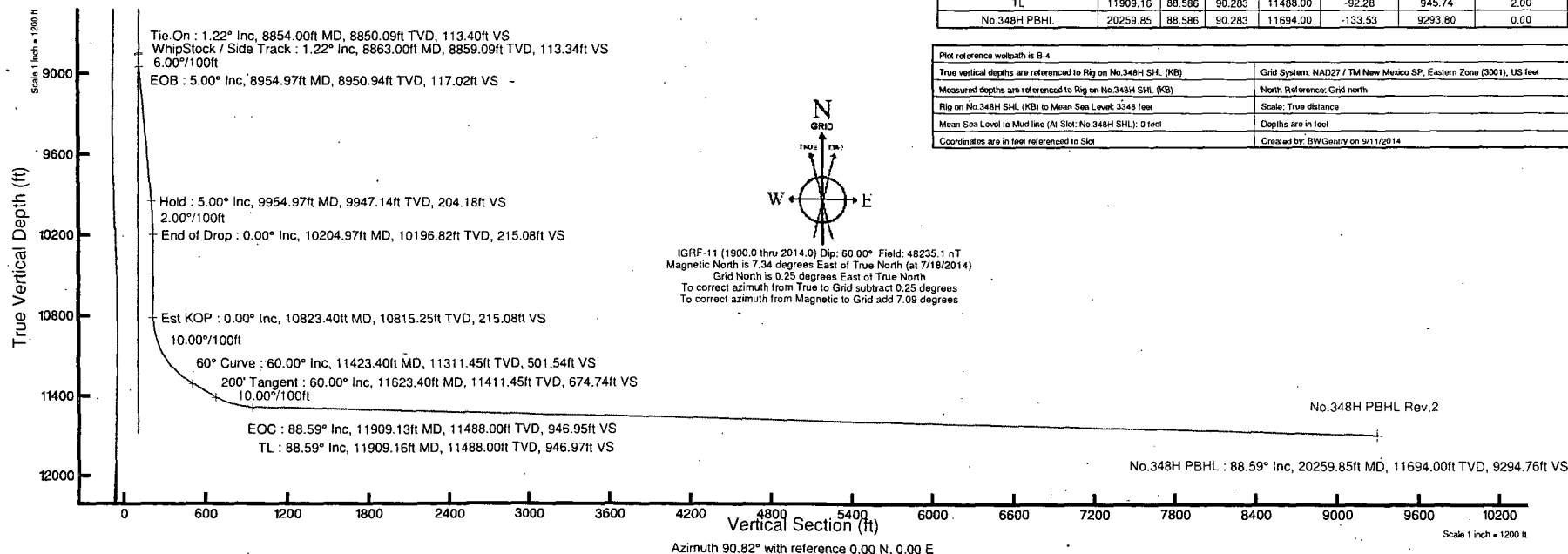
Slot: No.348H SHL
Well: No.348H
Wellbore: No.348H PWB

BOPCO, L.P.



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	8854.00	1.220	341.310	8850.09	-89.27	112.13	0.00	113.40
WhipStock / Side Track	8863.00	1.220	341.310	8859.09	-89.09	112.07	0.00	113.34
EOB	8954.97	5.000	90.283	8950.94	-88.18	115.77	6.00	117.02
Hold	9954.97	5.000	90.283	9947.14	-88.61	202.92	0.00	204.18
End of Drop	10204.97	0.000	90.283	10196.82	-88.66	213.83	2.00	215.08
Est KOP	10823.40	0.000	90.283	10815.25	-88.66	213.83	0.00	215.08
60° Curve	11423.40	60.000	90.283	11311.45	-90.08	500.30	10.00	501.54
200' Tangent	11623.40	60.000	90.283	11411.45	-90.93	673.50	0.00	674.74
EOC	11909.13	88.586	90.283	11488.00	-92.28	945.72	10.00	946.95
TL	11909.16	88.586	90.283	11488.00	-92.28	945.74	2.00	946.97
No.348H PBHL	20259.85	88.586	90.283	11694.00	-133.53	9293.80	0.00	9294.76

Plot reference wellpath is B-4	
True vertical depths are referenced to Rig on No.348H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.348H SHL (KB)	North Reference: Grid North
Rig on No.348H SHL (KB) to Mean Sea Level: 3346 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.348H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: BWGentry on 9/11/2014





Planned Wellpath Report

B-4

Page 1 of 7

BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	BWGentry
Scale	0.999933	Report Generated	9/11/2014 at 3:51:27 PM
Convergence at slot	0.25° East	Database/Source file	WellArchitectDB/No.348H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	644935.23	420264.31	32°09'16.404"N	103°51'54.026"W
Facility Reference Pt			644935.23	420264.31	32°09'16.404"N	103°51'54.026"W
Field Reference Pt			675156.40	424489.10	32°09'56.776"N	103°46'02.231"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.348H SHL (KB) to Facility Vertical Datum	3348.00ft
Horizontal Reference Pt	Slot	Rig on No.348H SHL (KB) to Mean Sea Level	3348.00ft
Vertical Reference Pt	Rig on No.348H SHL (KB)	Rig on No.348H SHL (KB) to Mud Line at Slot (No.348H SHL)	3348.00ft
MD Reference Pt	Rig on No.348H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.82°



Planned Wellpath Report

B-4

Page 2 of 7

BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (230 stations)

interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	27.430	0.00	0.00	0.00	0.00	644935.23	420264.31	32°09'16.404"N	103°51'54.026"W	0.00	
78.50	0.440	27.430	78.50	0.13	0.27	0.14	644935.37	420264.58	32°09'16.407"N	103°51'54.025"W	0.56	
172.90	0.420	58.910	172.90	0.59	0.77	0.60	644935.83	420265.08	32°09'16.412"N	103°51'54.019"W	0.25	
267.20	0.610	110.000	267.19	1.36	0.77	1.37	644936.60	420265.08	32°09'16.412"N	103°51'54.010"W	0.50	
361.60	0.750	116.700	361.59	2.39	0.33	2.39	644937.62	420264.63	32°09'16.408"N	103°51'53.999"W	0.17	
456.00	0.860	114.400	455.98	3.59	-0.25	3.59	644938.82	420264.06	32°09'16.402"N	103°51'53.985"W	0.12	
550.30	0.730	90.490	550.27	4.84	-0.54	4.84	644940.06	420263.77	32°09'16.399"N	103°51'53.970"W	0.37	
644.70	0.770	81.220	644.66	6.07	-0.45	6.06	644941.29	420263.86	32°09'16.400"N	103°51'53.956"W	0.14	
739.00	0.780	83.520	738.95	7.33	-0.28	7.33	644942.55	420264.03	32°09'16.401"N	103°51'53.941"W	0.03	
833.40	0.740	85.920	833.34	8.58	-0.17	8.57	644943.80	420264.14	32°09'16.402"N	103°51'53.927"W	0.05	
927.80	0.910	89.690	927.73	9.93	-0.12	9.93	644945.16	420264.19	32°09'16.403"N	103°51'53.911"W	0.19	
1022.10	1.000	89.120	1022.02	11.50	-0.10	11.50	644946.73	420264.21	32°09'16.403"N	103°51'53.893"W	0.10	
1086.09	1.325	87.750	1086.00	12.80	-0.06	12.80	644948.03	420264.24	32°09'16.403"N	103°51'53.877"W	0.51	Top Rustler Anhydrite
1116.50	1.480	87.310	1116.40	13.54	-0.03	13.55	644948.77	420264.28	32°09'16.404"N	103°51'53.869"W	0.51	
1210.80	2.190	86.390	1210.65	16.56	-0.14	16.56	644951.79	420264.45	32°09'16.405"N	103°51'53.834"W	0.75	
1305.20	2.310	89.310	1304.98	20.26	0.28	20.26	644955.49	420264.58	32°09'16.406"N	103°51'53.791"W	0.18	
1399.60	1.880	107.230	1399.31	23.64	-0.16	23.64	644958.87	420264.15	32°09'16.402"N	103°51'53.751"W	0.82	
1493.90	1.950	111.530	1493.56	26.63	-1.21	26.61	644961.84	420263.10	32°09'16.391"N	103°51'53.717"W	0.17	
1588.30	2.300	117.340	1587.90	29.83	-2.67	29.79	644965.02	420261.64	32°09'16.377"N	103°51'53.680"W	0.43	
1652.45	1.891	123.973	1652.00	31.86	-3.85	31.81	644967.04	420260.46	32°09'16.365"N	103°51'53.657"W	0.74	Top Salt
1682.60	1.710	128.160	1682.14	32.64	-4.41	32.58	644967.80	420259.90	32°09'16.359"N	103°51'53.648"W	0.74	
1777.00	1.330	139.990	1776.51	34.47	-6.11	34.39	644969.61	420258.19	32°09'16.342"N	103°51'53.627"W	0.52	
1871.40	1.120	141.560	1870.88	35.77	-7.68	35.67	644970.89	420256.63	32°09'16.327"N	103°51'53.612"W	0.23	
1965.70	0.780	141.050	1965.17	36.77	-8.90	36.64	644971.87	420255.41	32°09'16.315"N	103°51'53.601"W	0.36	
2060.10	0.500	142.640	2059.56	37.43	-9.72	37.30	644972.52	420254.59	32°09'16.307"N	103°51'53.593"W	0.30	
2154.40	0.300	139.350	2153.86	37.85	-10.24	37.71	644972.93	420254.07	32°09'16.301"N	103°51'53.588"W	0.21	
2248.80	0.010	339.360	2248.26	38.01	-10.42	37.87	644973.09	420253.89	32°09'16.300"N	103°51'53.586"W	0.33	
2343.20	0.290	308.730	2342.66	37.82	-10.26	37.68	644972.90	420254.05	32°09'16.301"N	103°51'53.589"W	0.30	
2437.50	0.330	308.340	2436.96	37.42	-9.94	37.28	644972.50	420254.37	32°09'16.304"N	103°51'53.593"W	0.04	
2531.90	0.380	308.050	2531.36	36.95	-9.58	36.82	644972.04	420254.73	32°09'16.308"N	103°51'53.599"W	0.05	
2626.20	0.570	304.340	2625.66	36.31	-9.12	36.18	644971.41	420255.18	32°09'16.313"N	103°51'53.606"W	0.20	
2720.60	0.650	299.600	2720.05	35.45	-8.60	35.33	644970.56	420255.71	32°09'16.318"N	103°51'53.616"W	0.10	
2815.00	0.680	306.730	2814.44	34.53	-8.00	34.42	644969.64	420256.31	32°09'16.324"N	103°51'53.626"W	0.09	
2909.30	0.500	309.900	2908.74	33.76	-7.40	33.65	644968.88	420256.91	32°09'16.330"N	103°51'53.635"W	0.19	
3003.70	0.800	278.090	3003.13	32.78	-7.04	32.68	644967.91	420257.27	32°09'16.333"N	103°51'53.647"W	0.49	
3098.00	0.990	285.610	3097.42	31.34	-6.73	31.25	644966.47	420257.58	32°09'16.336"N	103°51'53.663"W	0.24	
3192.40	0.440	95.070	3191.82	30.91	-6.54	30.82	644966.05	420257.77	32°09'16.338"N	103°51'53.668"W	1.51	
3286.80	2.790	107.040	3286.17	33.48	-7.25	33.38	644968.61	420257.06	32°09'16.331"N	103°51'53.638"W	2.50	
3381.10	3.400	109.560	3380.34	38.33	-8.86	38.21	644973.44	420255.45	32°09'16.315"N	103°51'53.582"W	0.66	
3475.50	4.370	115.580	3474.52	44.25	-11.35	44.09	644979.32	420252.96	32°09'16.290"N	103°51'53.514"W	1.11	
3569.80	4.880	118.600	3568.51	51.06	-14.82	50.85	644986.08	420249.49	32°09'16.256"N	103°51'53.436"W	0.60	
3664.20	5.030	125.140	3662.56	58.03	-19.12	57.76	644992.99	420245.19	32°09'16.213"N	103°51'53.355"W	0.62	
3741.93	4.873	126.980	3740.00	63.51	-23.07	63.19	644998.41	420241.24	32°09'16.173"N	103°51'53.293"W	0.29	Base Salt
3758.60	4.840	127.390	3756.61	64.65	-23.92	64.31	644999.54	420240.39	32°09'16.165"N	103°51'53.280"W	0.29	
3852.90	2.580	130.500	3850.71	69.48	-27.72	69.09	645004.31	420236.60	32°09'16.127"N	103°51'53.224"W	2.41	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (230 stations) Interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3947.30	2.140	127.050	3945.02	72.54	-30.16	72.11	645007.33	420234.15	32°09'16.103"N	103°51'53.189"W	0.49	
3950.28	2.136	126.901	3948.00	72.63	-30.22	72.20	645007.42	420234.09	32°09'16.102"N	103°51'53.188"W	0.22	Top Del. Mtn. Grp.
4041.60	2.030	122.090	4039.26	75.38	-32.11	74.93	645010.15	420232.21	32°09'16.083"N	103°51'53.156"W	0.22	
4136.00	2.220	120.810	4133.60	78.40	-33.93	77.92	645013.14	420230.38	32°09'16.065"N	103°51'53.122"W	0.21	
4230.40	1.470	124.060	4227.95	80.99	-35.54	80.49	645015.71	420228.77	32°09'16.049"N	103°51'53.092"W	0.80	
4324.70	1.210	119.090	4322.22	82.88	-36.71	82.36	645017.58	420227.61	32°09'16.038"N	103°51'53.070"W	0.30	
4419.10	1.280	117.390	4416.60	84.70	-37.68	84.17	645019.39	420226.64	32°09'16.028"N	103°51'53.049"W	0.08	
4513.40	1.470	120.610	4510.87	86.69	-38.78	86.15	645021.37	420225.54	32°09'16.017"N	103°51'53.026"W	0.22	
4607.80	1.540	129.330	4605.24	88.74	-40.20	88.17	645023.39	420224.11	32°09'16.003"N	103°51'53.003"W	0.25	
4702.20	1.290	127.060	4699.61	90.59	-41.64	90.00	645025.22	420222.67	32°09'15.988"N	103°51'52.982"W	0.27	
4796.50	1.410	121.800	4793.89	92.44	-42.89	91.83	645027.05	420221.42	32°09'15.976"N	103°51'52.960"W	0.18	
4890.90	1.570	124.580	4888.25	94.51	-44.24	93.88	645029.10	420220.07	32°09'15.963"N	103°51'52.937"W	0.19	
4985.20	1.480	132.300	4982.52	96.50	-45.79	95.85	645031.07	420218.52	32°09'15.947"N	103°51'52.914"W	0.24	
5079.60	1.360	130.220	5076.89	98.28	-47.33	97.61	645032.83	420216.98	32°09'15.932"N	103°51'52.893"W	0.14	
5174.00	1.350	127.470	5171.26	100.03	-48.73	99.34	645034.56	420215.58	32°09'15.918"N	103°51'52.873"W	0.07	
5268.30	1.440	125.310	5265.54	101.90	-50.10	101.19	645036.41	420214.22	32°09'15.904"N	103°51'52.852"W	0.11	
5362.70	1.590	130.410	5359.90	103.89	-51.63	103.16	645038.38	420212.68	32°09'15.889"N	103°51'52.829"W	0.21	
5457.00	1.540	136.040	5454.17	105.79	-53.39	105.03	645040.25	420210.92	32°09'15.872"N	103°51'52.807"W	0.17	
5551.40	1.360	137.090	5548.54	107.46	-55.12	106.68	645041.90	420209.19	32°09'15.854"N	103°51'52.788"W	0.19	
5645.80	1.330	133.820	5642.91	109.03	-56.70	108.23	645043.45	420207.61	32°09'15.839"N	103°51'52.770"W	0.09	
5740.10	1.510	131.550	5737.18	110.77	-58.28	109.95	645045.17	420206.03	32°09'15.823"N	103°51'52.750"W	0.20	
5834.50	1.690	136.040	5831.55	112.70	-60.11	111.85	645047.06	420204.20	32°09'15.805"N	103°51'52.728"W	0.23	
5928.80	1.700	142.480	5925.81	114.54	-62.22	113.66	645048.88	420202.09	32°09'15.784"N	103°51'52.707"W	0.20	
6023.20	1.580	147.230	6020.17	116.13	-64.43	115.22	645050.44	420199.89	32°09'15.762"N	103°51'52.689"W	0.19	
6117.60	1.580	147.320	6114.53	117.57	-66.62	116.63	645051.85	420197.70	32°09'15.740"N	103°51'52.673"W	0.00	
6211.90	1.640	145.620	6208.79	119.07	-68.82	118.09	645053.31	420195.49	32°09'15.718"N	103°51'52.656"W	0.08	
6306.30	1.610	146.130	6303.16	120.60	-71.04	119.59	645054.81	420193.27	32°09'15.696"N	103°51'52.639"W	0.04	
6400.60	1.480	143.420	6397.42	122.09	-73.12	121.06	645056.28	420191.20	32°09'15.676"N	103°51'52.622"W	0.16	
6495.00	1.360	146.050	6491.79	123.47	-75.03	122.41	645057.63	420189.29	32°09'15.657"N	103°51'52.606"W	0.14	
6589.40	1.250	152.200	6586.17	124.61	-76.87	123.51	645058.73	420187.45	32°09'15.638"N	103°51'52.594"W	0.19	
6683.70	1.150	155.310	6680.45	125.51	-78.64	124.39	645059.61	420185.68	32°09'15.621"N	103°51'52.584"W	0.13	
6778.10	1.070	158.450	6774.83	126.25	-80.32	125.11	645060.33	420184.00	32°09'15.604"N	103°51'52.575"W	0.11	
6872.40	1.040	161.240	6869.11	126.87	-81.95	125.71	645060.93	420182.37	32°09'15.588"N	103°51'52.568"W	0.06	
6966.80	1.100	169.310	6963.50	127.34	-83.65	126.15	645061.37	420180.67	32°09'15.571"N	103°51'52.563"W	0.17	
7061.20	1.090	164.350	7057.88	127.78	-85.40	126.56	645061.78	420178.91	32°09'15.554"N	103°51'52.559"W	0.10	
7155.50	1.210	163.110	7152.16	128.33	-87.22	127.09	645062.31	420177.10	32°09'15.536"N	103°51'52.553"W	0.13	
7249.90	1.430	166.560	7246.54	128.93	-89.32	127.66	645062.87	420175.00	32°09'15.515"N	103°51'52.546"W	0.25	
7344.20	1.390	175.230	7340.81	129.33	-91.60	128.02	645063.24	420172.71	32°09'15.492"N	103°51'52.542"W	0.23	
7438.60	1.520	177.550	7435.18	129.51	-93.99	128.17	645063.39	420170.32	32°09'15.469"N	103°51'52.540"W	0.15	
7533.00	1.500	182.520	7529.54	129.55	-96.48	128.17	645063.39	420167.84	32°09'15.444"N	103°51'52.540"W	0.14	
7627.30	1.540	189.470	7623.81	129.32	-98.96	127.91	645063.13	420165.35	32°09'15.420"N	103°51'52.544"W	0.20	
7721.70	1.390	197.950	7718.18	128.79	-101.30	127.35	645062.57	420163.01	32°09'15.396"N	103°51'52.550"W	0.28	
7752.53	1.340	210.926	7749.00	128.50	-101.97	127.05	645062.27	420162.35	32°09'15.390"N	103°51'52.554"W	1.01	Top Bone Spring Lime
7816.00	1.460	237.040	7812.45	127.46	-103.04	125.99	645061.21	420161.27	32°09'15.379"N	103°51'52.566"W	1.01	
7910.40	1.330	255.670	7906.83	125.40	-103.97	123.92	645059.14	420160.35	32°09'15.370"N	103°51'52.590"W	0.50	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (230 stations) = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8004.80	1.340	261.040	8001.20	123.25	-104.41	121.77	645056.98	420159.90	32°09'15.366"N	103°51'52.615"W	0.13	
8099.10	1.150	273.600	8095.48	121.22	-104.53	119.73	645054.95	420159.79	32°09'15.365"N	103°51'52.639"W	0.35	
8193.50	0.860	282.130	8189.86	119.58	-104.32	118.09	645053.31	420160.00	32°09'15.367"N	103°51'52.658"W	0.34	
8287.80	0.780	251.420	8284.15	118.28	-104.37	116.79	645052.01	420159.94	32°09'15.367"N	103°51'52.673"W	0.47	
8382.20	0.830	338.680	8378.55	117.42	-103.94	115.94	645051.16	420160.38	32°09'15.371"N	103°51'52.683"W	1.18	
8476.60	1.950	343.640	8472.92	116.69	-101.76	115.24	645050.45	420162.55	32°09'15.392"N	103°51'52.691"W	1.19	
8570.90	2.480	343.190	8567.15	115.59	-98.27	114.19	645049.41	420166.05	32°09'15.427"N	103°51'52.703"W	0.56	
8628.80	2.297	347.725	8625.00	114.95	-95.94	113.58	645048.80	420168.38	32°09'15.450"N	103°51'52.710"W	0.45	Top 1st Bone Spring Sanc
8665.30	2.190	350.960	8661.47	114.67	-94.53	113.32	645048.54	420169.78	32°09'15.464"N	103°51'52.713"W	0.45	
8759.60	1.580	347.110	8755.72	114.05	-91.49	112.75	645047.97	420172.83	32°09'15.494"N	103°51'52.720"W	0.66	
8854.00	1.220	341.310	8850.09	113.40	-89.27	112.13	645047.35	420175.05	32°09'15.516"N	103°51'52.727"W	0.00	Tie On
8863.00	1.220	341.310	8859.09	113.34	-89.09	112.07	645047.29	420175.23	32°09'15.518"N	103°51'52.727"W	0.00	Whipstock / Side Track
8954.00	4.943	90.141	8949.98	116.94	-88.18	115.69	645050.90	420176.14	32°09'15.527"N	103°51'52.685"W	6.00	
8954.97	5.000	90.283	8950.94	117.02	-88.18	115.77	645050.99	420176.14	32°09'15.527"N	103°51'52.684"W	6.00	EOB
9054.00	5.000	90.283	9049.60	125.65	-88.22	124.40	645059.62	420176.10	32°09'15.526"N	103°51'52.584"W	0.00	
9098.57	5.000	90.283	9094.00	129.54	-88.24	128.28	645063.50	420176.08	32°09'15.526"N	103°51'52.539"W	0.00	Top 2nd Bone Spring A
9154.00	5.000	90.283	9149.22	134.37	-88.26	133.12	645068.33	420176.05	32°09'15.525"N	103°51'52.483"W	0.00	
9254.00	5.000	90.283	9248.84	143.09	-88.31	141.83	645077.05	420176.01	32°09'15.524"N	103°51'52.381"W	0.00	
9354.00	5.000	90.283	9348.45	151.80	-88.35	150.55	645085.76	420175.97	32°09'15.524"N	103°51'52.280"W	0.00	
9454.00	5.000	90.283	9448.07	160.52	-88.39	159.26	645094.48	420175.92	32°09'15.523"N	103°51'52.178"W	0.00	
9554.00	5.000	90.283	9547.69	169.23	-88.43	167.98	645103.19	420175.88	32°09'15.522"N	103°51'52.077"W	0.00	
9654.00	5.000	90.283	9647.31	177.95	-88.48	176.69	645111.91	420175.84	32°09'15.521"N	103°51'51.976"W	0.00	
9754.00	5.000	90.283	9746.93	186.66	-88.52	185.41	645120.62	420175.79	32°09'15.520"N	103°51'51.874"W	0.00	
9854.00	5.000	90.283	9846.55	195.38	-88.56	194.12	645129.34	420175.75	32°09'15.520"N	103°51'51.773"W	0.00	
9881.55	5.000	90.283	9874.00	197.78	-88.58	196.53	645131.74	420175.74	32°09'15.519"N	103°51'51.745"W	0.00	Top of Carbonate 2-
9954.00	5.000	90.283	9946.17	204.09	-88.61	202.84	645138.05	420175.71	32°09'15.519"N	103°51'51.672"W	0.00	
9954.97	5.000	90.283	9947.14	204.18	-88.61	202.92	645138.14	420175.71	32°09'15.519"N	103°51'51.671"W	0.00	Hold
10054.00	3.019	90.283	10045.92	211.10	-88.64	209.85	645145.06	420175.67	32°09'15.518"N	103°51'51.590"W	2.00	
10154.00	1.019	90.283	10145.85	214.62	-88.66	213.37	645148.58	420175.66	32°09'15.518"N	103°51'51.549"W	2.00	
10204.97	0.000	90.283	10196.82	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	2.00	End of Drop
10254.00	0.000	90.283	10245.85	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	
10354.00	0.000	90.283	10345.85	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	
10454.00	0.000	90.283	10445.85	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	
10554.00	0.000	90.283	10545.85	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	
10653.15	0.000	90.283	10645.00	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	Top 3rd Bone Spring
10654.00	0.000	90.283	10645.85	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	
10754.00	0.000	90.283	10745.85	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	
10823.40	0.000	90.283	10815.25	215.08	-88.66	213.83	645149.04	420175.65	32°09'15.518"N	103°51'51.544"W	0.00	Est KOP
10854.00	3.060	90.283	10845.84	215.89	-88.67	214.64	645149.85	420175.65	32°09'15.518"N	103°51'51.534"W	10.00	
10954.00	13.060	90.283	10944.72	229.90	-88.73	228.65	645163.86	420175.58	32°09'15.517"N	103°51'51.371"W	10.00	
11054.00	23.060	90.283	11039.68	260.86	-88.89	259.61	645194.82	420175.43	32°09'15.514"N	103°51'51.011"W	10.00	
11060.89	23.749	90.283	11046.00	263.59	-88.90	262.34	645197.55	420175.41	32°09'15.513"N	103°51'50.979"W	10.00	Top Wolfcamp A
11154.00	33.060	90.283	11127.81	307.83	-89.12	306.59	645241.79	420175.20	32°09'15.509"N	103°51'50.465"W	10.00	
11237.19	41.379	90.283	11194.00	358.11	-89.37	356.86	645292.07	420174.95	32°09'15.505"N	103°51'49.880"W	10.00	Top Wolfcamp B
11254.00	43.060	90.283	11206.45	369.40	-89.42	368.16	645303.36	420174.89	32°09'15.504"N	103°51'49.749"W	10.00	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (230 stations)

interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [%/100ft]	Comments
11354.00†	53.060	90.283	11273.20	443.69	-89.79	442.44	645377.64	420174.52	32°09'15.497"N	103°51'48.885"W	10.00	
11423.40	60.000	90.283	11311.45	501.54	-90.08	500.30	645435.49	420174.24	32°09'15.491"N	103°51'48.212"W	10.00	60° Curve
11454.00†	60.000	90.283	11326.75	528.04	-90.21	526.80	645461.99	420174.11	32°09'15.489"N	103°51'47.903"W	0.00	
11554.00†	60.000	90.283	11376.75	614.64	-90.63	613.40	645548.59	420173.68	32°09'15.481"N	103°51'46.896"W	0.00	
11623.40†	60.000	90.283	11411.45	674.74	-90.93	673.50	645608.68	420173.38	32°09'15.476"N	103°51'46.197"W	0.00	200° Tangent
11654.00†	63.061	90.283	11426.03	701.64	-91.06	700.40	645635.58	420173.25	32°09'15.473"N	103°51'45.884"W	10.00	
11754.00†	73.066	90.283	11463.34	794.27	-91.52	793.04	645728.21	420172.79	32°09'15.465"N	103°51'44.807"W	10.00	
11854.00†	83.070	90.283	11483.99	891.98	-92.00	890.75	645825.92	420172.31	32°09'15.456"N	103°51'43.670"W	10.00	
11909.13	88.586	90.283	11488.00	946.95	-92.28	945.72	645880.88	420172.04	32°09'15.450"N	103°51'43.031"W	10.00	EOC
11909.16†	88.586	90.283	11488.00	946.97	-92.28	945.74	645880.90	420172.04	32°09'15.450"N	103°51'43.031"W	2.00	TL
11954.00†	88.586	90.283	11489.11	991.80	-92.50	990.57	645925.73	420171.82	32°09'15.446"N	103°51'42.509"W	0.00	
12054.00†	88.586	90.283	11491.57	1091.76	-92.99	1090.54	646025.69	420171.32	32°09'15.437"N	103°51'41.347"W	0.00	
12154.00†	88.586	90.283	11494.04	1191.73	-93.49	1190.51	646125.65	420170.83	32°09'15.428"N	103°51'40.184"W	0.00	
12254.00†	88.586	90.283	11496.51	1291.69	-93.98	1290.48	646225.62	420170.34	32°09'15.419"N	103°51'39.021"W	0.00	
12354.00†	88.586	90.283	11498.97	1391.66	-94.47	1390.45	646325.58	420169.84	32°09'15.409"N	103°51'37.858"W	0.00	
12454.00†	88.586	90.283	11501.44	1491.62	-94.97	1490.41	646425.54	420169.35	32°09'15.400"N	103°51'36.696"W	0.00	
12554.00†	88.586	90.283	11503.91	1591.59	-95.46	1590.38	646525.50	420168.85	32°09'15.391"N	103°51'35.533"W	0.00	
12654.00†	88.586	90.283	11506.37	1691.55	-95.96	1690.35	646625.46	420168.36	32°09'15.382"N	103°51'34.370"W	0.00	
12754.00†	88.586	90.283	11508.84	1791.52	-96.45	1790.32	646725.42	420167.87	32°09'15.372"N	103°51'33.207"W	0.00	
12854.00†	88.586	90.283	11511.31	1891.49	-96.94	1890.29	646825.38	420167.37	32°09'15.363"N	103°51'32.045"W	0.00	
12954.00†	88.586	90.283	11513.78	1991.45	-97.44	1990.26	646925.35	420166.88	32°09'15.354"N	103°51'30.882"W	0.00	
13054.00†	88.586	90.283	11516.24	2091.42	-97.93	2090.22	647025.31	420166.38	32°09'15.345"N	103°51'29.719"W	0.00	
13154.00†	88.586	90.283	11518.71	2191.38	-98.43	2190.19	647125.27	420165.89	32°09'15.335"N	103°51'28.556"W	0.00	
13254.00†	88.586	90.283	11521.18	2291.35	-98.92	2290.16	647225.23	420165.40	32°09'15.326"N	103°51'27.394"W	0.00	
13354.00†	88.586	90.283	11523.64	2391.31	-99.41	2390.13	647325.19	420164.90	32°09'15.317"N	103°51'26.231"W	0.00	
13454.00†	88.586	90.283	11526.11	2491.28	-99.91	2490.10	647425.15	420164.41	32°09'15.308"N	103°51'25.068"W	0.00	
13554.00†	88.586	90.283	11528.58	2591.24	-100.40	2590.07	647525.11	420163.91	32°09'15.298"N	103°51'23.905"W	0.00	
13654.00†	88.586	90.283	11531.04	2691.21	-100.90	2690.03	647625.08	420163.42	32°09'15.289"N	103°51'22.743"W	0.00	
13754.00†	88.586	90.283	11533.51	2791.17	-101.39	2790.00	647725.04	420162.93	32°09'15.280"N	103°51'21.580"W	0.00	
13854.00†	88.586	90.283	11535.98	2891.14	-101.88	2889.97	647825.00	420162.43	32°09'15.271"N	103°51'20.417"W	0.00	
13954.00†	88.586	90.283	11538.44	2991.10	-102.38	2989.94	647924.96	420161.94	32°09'15.261"N	103°51'19.254"W	0.00	
14054.00†	88.586	90.283	11540.91	3091.07	-102.87	3089.91	648024.92	420161.44	32°09'15.252"N	103°51'18.092"W	0.00	
14154.00†	88.586	90.283	11543.38	3191.03	-103.37	3189.88	648124.88	420160.95	32°09'15.243"N	103°51'16.929"W	0.00	
14254.00†	88.586	90.283	11545.84	3291.00	-103.86	3289.84	648224.84	420160.45	32°09'15.233"N	103°51'15.766"W	0.00	
14354.00†	88.586	90.283	11548.31	3390.96	-104.36	3389.81	648324.81	420159.96	32°09'15.224"N	103°51'14.603"W	0.00	
14454.00†	88.586	90.283	11550.78	3490.93	-104.85	3489.78	648424.77	420159.47	32°09'15.215"N	103°51'13.441"W	0.00	
14554.00†	88.586	90.283	11553.24	3590.89	-105.34	3589.75	648524.73	420158.97	32°09'15.206"N	103°51'12.278"W	0.00	
14654.00†	88.586	90.283	11555.71	3690.86	-105.84	3689.72	648624.69	420158.48	32°09'15.196"N	103°51'11.115"W	0.00	
14754.00†	88.586	90.283	11558.18	3790.82	-106.33	3789.69	648724.65	420157.98	32°09'15.187"N	103°51'09.952"W	0.00	
14854.00†	88.586	90.283	11560.65	3890.79	-106.83	3889.65	648824.61	420157.49	32°09'15.178"N	103°51'08.790"W	0.00	
14954.00†	88.586	90.283	11563.11	3990.75	-107.32	3989.62	648924.58	420157.00	32°09'15.168"N	103°51'07.627"W	0.00	
15054.00†	88.586	90.283	11565.58	4090.72	-107.81	4089.59	649024.54	420156.50	32°09'15.159"N	103°51'06.464"W	0.00	
15154.00†	88.586	90.283	11568.05	4190.68	-108.31	4189.56	649124.50	420156.01	32°09'15.150"N	103°51'05.301"W	0.00	
15254.00†	88.586	90.283	11570.51	4290.65	-108.80	4289.53	649224.46	420155.51	32°09'15.140"N	103°51'04.139"W	0.00	
15354.00†	88.586	90.283	11572.98	4390.61	-109.30	4389.50	649324.42	420155.02	32°09'15.131"N	103°51'02.976"W	0.00	



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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION

Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (230 stations) interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15454.00†	88.586	90.283	11575.45	4490.58	-109.79	4489.46	649424.38	420154.53	32°09'15.122"N	103°51'01.813"W	0.00	
15554.00†	88.586	90.283	11577.91	4590.54	-110.28	4589.43	649524.34	420154.03	32°09'15.112"N	103°51'00.650"W	0.00	
15654.00†	88.586	90.283	11580.38	4690.51	-110.78	4689.40	649624.31	420153.54	32°09'15.103"N	103°50'59.488"W	0.00	
15754.00†	88.586	90.283	11582.85	4790.47	-111.27	4789.37	649724.27	420153.04	32°09'15.094"N	103°50'58.325"W	0.00	
15854.00†	88.586	90.283	11585.31	4890.44	-111.77	4889.34	649824.23	420152.55	32°09'15.084"N	103°50'57.162"W	0.00	
15954.00†	88.586	90.283	11587.78	4990.40	-112.26	4989.31	649924.19	420152.06	32°09'15.075"N	103°50'55.999"W	0.00	
16054.00†	88.586	90.283	11590.25	5090.37	-112.75	5089.27	650024.15	420151.56	32°09'15.066"N	103°50'54.837"W	0.00	
16154.00†	88.586	90.283	11592.71	5190.33	-113.25	5189.24	650124.11	420151.07	32°09'15.056"N	103°50'53.674"W	0.00	
16254.00†	88.586	90.283	11595.18	5290.30	-113.74	5289.21	650224.07	420150.57	32°09'15.047"N	103°50'52.511"W	0.00	
16354.00†	88.586	90.283	11597.65	5390.26	-114.24	5389.18	650324.04	420150.08	32°09'15.038"N	103°50'51.348"W	0.00	
16454.00†	88.586	90.283	11600.12	5490.23	-114.73	5489.15	650424.00	420149.59	32°09'15.028"N	103°50'50.186"W	0.00	
16554.00†	88.586	90.283	11602.58	5590.19	-115.22	5589.12	650523.96	420149.09	32°09'15.019"N	103°50'49.023"W	0.00	
16654.00†	88.586	90.283	11605.05	5690.16	-115.72	5689.08	650623.92	420148.60	32°09'15.010"N	103°50'47.860"W	0.00	
16754.00†	88.586	90.283	11607.52	5790.13	-116.21	5789.05	650723.88	420148.10	32°09'15.000"N	103°50'46.697"W	0.00	
16854.00†	88.586	90.283	11609.98	5890.09	-116.71	5889.02	650823.84	420147.61	32°09'14.991"N	103°50'45.535"W	0.00	
16954.00†	88.586	90.283	11612.45	5990.06	-117.20	5988.99	650923.80	420147.12	32°09'14.982"N	103°50'44.372"W	0.00	
17054.00†	88.586	90.283	11614.92	6090.02	-117.69	6088.96	651023.77	420146.62	32°09'14.972"N	103°50'43.209"W	0.00	
17154.00†	88.586	90.283	11617.38	6189.99	-118.19	6188.93	651123.73	420146.13	32°09'14.963"N	103°50'42.046"W	0.00	
17254.00†	88.586	90.283	11619.85	6289.95	-118.68	6288.89	651223.69	420145.63	32°09'14.953"N	103°50'40.884"W	0.00	
17354.00†	88.586	90.283	11622.32	6389.92	-119.18	6388.86	651323.65	420145.14	32°09'14.944"N	103°50'39.721"W	0.00	
17454.00†	88.586	90.283	11624.78	6489.88	-119.67	6488.83	651423.61	420144.65	32°09'14.935"N	103°50'38.558"W	0.00	
17554.00†	88.586	90.283	11627.25	6589.85	-120.17	6588.80	651523.57	420144.15	32°09'14.925"N	103°50'37.395"W	0.00	
17654.00†	88.586	90.283	11629.72	6689.81	-120.66	6688.77	651623.53	420143.66	32°09'14.916"N	103°50'36.233"W	0.00	
17754.00†	88.586	90.283	11632.18	6789.78	-121.15	6788.74	651723.50	420143.16	32°09'14.906"N	103°50'35.070"W	0.00	
17854.00†	88.586	90.283	11634.65	6889.74	-121.65	6888.70	651823.46	420142.67	32°09'14.897"N	103°50'33.907"W	0.00	
17954.00†	88.586	90.283	11637.12	6989.71	-122.14	6988.67	651923.42	420142.18	32°09'14.888"N	103°50'32.745"W	0.00	
18054.00†	88.586	90.283	11639.58	7089.67	-122.64	7088.64	652023.38	420141.68	32°09'14.878"N	103°50'31.582"W	0.00	
18154.00†	88.586	90.283	11642.05	7189.64	-123.13	7188.61	652123.34	420141.19	32°09'14.869"N	103°50'30.419"W	0.00	
18254.00†	88.586	90.283	11644.52	7289.60	-123.62	7288.58	652223.30	420140.69	32°09'14.859"N	103°50'29.256"W	0.00	
18354.00†	88.586	90.283	11646.99	7389.57	-124.12	7388.55	652323.27	420140.20	32°09'14.850"N	103°50'28.094"W	0.00	
18454.00†	88.586	90.283	11649.45	7489.53	-124.61	7488.52	652423.23	420139.71	32°09'14.841"N	103°50'26.931"W	0.00	
18554.00†	88.586	90.283	11651.92	7589.50	-125.11	7588.48	652523.19	420139.21	32°09'14.831"N	103°50'25.768"W	0.00	
18654.00†	88.586	90.283	11654.39	7689.46	-125.60	7688.45	652623.15	420138.72	32°09'14.822"N	103°50'24.605"W	0.00	
18754.00†	88.586	90.283	11656.85	7789.43	-126.09	7788.42	652723.11	420138.22	32°09'14.812"N	103°50'23.443"W	0.00	
18854.00†	88.586	90.283	11659.32	7889.39	-126.59	7888.39	652823.07	420137.73	32°09'14.803"N	103°50'22.280"W	0.00	
18954.00†	88.586	90.283	11661.79	7989.36	-127.08	7988.36	652923.03	420137.24	32°09'14.794"N	103°50'21.117"W	0.00	
19054.00†	88.586	90.283	11664.25	8089.32	-127.58	8088.33	653023.00	420136.74	32°09'14.784"N	103°50'19.954"W	0.00	
19154.00†	88.586	90.283	11666.72	8189.29	-128.07	8188.29	653122.96	420136.25	32°09'14.775"N	103°50'18.792"W	0.00	
19254.00†	88.586	90.283	11669.19	8289.25	-128.56	8288.26	653222.92	420135.75	32°09'14.765"N	103°50'17.629"W	0.00	
19354.00†	88.586	90.283	11671.65	8389.22	-129.06	8388.23	653322.88	420135.26	32°09'14.756"N	103°50'16.466"W	0.00	
19454.00†	88.586	90.283	11674.12	8489.18	-129.55	8488.20	653422.84	420134.77	32°09'14.746"N	103°50'15.303"W	0.00	
19554.00†	88.586	90.283	11676.59	8589.15	-130.05	8588.17	653522.80	420134.27	32°09'14.737"N	103°50'14.141"W	0.00	
19654.00†	88.586	90.283	11679.05	8689.11	-130.54	8688.14	653622.76	420133.78	32°09'14.727"N	103°50'12.978"W	0.00	
19754.00†	88.586	90.283	11681.52	8789.08	-131.03	8788.10	653722.73	420133.28	32°09'14.718"N	103°50'11.815"W	0.00	
19854.00†	88.586	90.283	11683.99	8889.04	-131.53	8888.07	653822.69	420132.79	32°09'14.709"N	103°50'10.652"W	0.00	



Planned Wellpath Report

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BOPCO, L.P.

REFERENCE WELLPATH IDENTIFICATION			
Operator	WTD - West Texas Division	Slot	No.348H SHL
Area	Eddy County, NM	Well	No.348H
Field	Poker Lake Unit	Wellbore	No.348H PWB
Facility	PLU Pad (348H, PC3 SWD)	Sidetrack from	No.348H AWB (orig) at 8665.30 MD

WELLPATH DATA (230 stations) † = interpolated/extrapolated station.												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
19954.00†	88.586	90.283	11686.46	8989.01	-132.02	8988.04	653922.65	420132.30	32°09'14.699"N	103°50'09.490"W	0.00	
20054.00†	88.586	90.283	11688.92	9088.97	-132.52	9088.01	654022.61	420131.80	32°09'14.690"N	103°50'08.327"W	0.00	
20154.00†	88.586	90.283	11691.39	9188.94	-133.01	9187.98	654122.57	420131.31	32°09'14.680"N	103°50'07.164"W	0.00	
20254.00†	88.586	90.283	11693.86	9288.90	-133.50	9287.95	654222.53	420130.81	32°09'14.671"N	103°50'06.001"W	0.00	
20259.85	88.586	90.283	11694.00	9294.76	-133.53	9293.80	654228.39	420130.78	32°09'14.670"N	103°50'05.933"W	0.00	No.348H PBHL

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.348H PBHL		11623.00	23.54	6300.19	651234.99	420287.85	32°09'16.360"N	103°50'40.745"W	point
1) No.348H PBHL Rev.2	20259.85	11694.00	-133.53	9293.80	654228.39	420130.78	32°09'14.670"N	103°50'05.933"W	point

SURVEY PROGRAM - Ref Wellbore: No.348H PWB - Ref Wellpath: B-4				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
27.00	8854.00	Generic gyro - northseeking (Standard)		No.348H AWB (orig)
8854.00	20259.85	NaviTrak (Standard)		No.348H PWB

The original COAs still stand with the following drilling modification:

Centralizers required through the curve and a minimum of one every other joint.

1. The minimum required fill of cement behind the 7 inch production casing is:

- ☒ Cement as proposed by operator. Operator shall provide method of verification.

2. The minimum required fill of cement behind the 4-1/2 inch production Liner is:

- ☒ Cement as proposed by operator. Operator shall provide method of verification.