

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101
Revised November 14, 2012

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

MAY 07 2013

☐ AMENDED REPORT

NMOCD ARTESIA

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

Operator Name and Address BOPCO, L.P. P.O. Box 2760 Midland, TX 79702		OGRID Number 260737
		API Number 41392
Property Code 306402 310001	Property Name PLU Big Sinks 2-25-30 State S/S	Well No 3H

Surface Location

UL - Lot N	Section 2	Township 25S	Range 30E	Lot Idn	Feet from 50'	N/S Line S	Feet From 1980'	E/W Line W	County Eddy
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Proposed Bottom Hole Location

UL - Lot 3	Section 2	Township 25S	Range 30E	Lot Idn	Feet from 50'	N/S Line N	Feet From 1980'	E/W Line E	County Eddy
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Pool Information

Pool Name WILDCAT G-06 52530020; B.S. Corral Canyon (Bone Spring)	Pool Code 96209 97913
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Additional Well Information

Work Type New Well	Well Type Oil	Cable/Rotary	Lease Type State	Ground Level Elevation 3,361'
Multiple N	Proposed Depth 14,232' MD	Formation 1 st Bone Spring Shale	Contractor	Spud Date 10/13/2013
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17-1/2"	13-3/8"	48	1,261'	1,130	Surface
Int	11"	8-5/8"	32	4,043'	1,010	Surface
Prod	7-7/8"	17"	17	14,232'	1,150	8,723 (KOP)

Casing/Cement Program: Additional Comments

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Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5,000	3,500	Hydrill
Double Ram	5,000	5,000	Shaffer

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 I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: Courtney Lockhart

Printed name: Courtney Lockhart

Title: Regulatory Analyst

E-mail Address: CJLockhart@basspet.com

Date: 4/30/13

Phone: (432) 683-2277

OIL CONSERVATION DIVISION

Approved By:

Title:

Approved Date:

Expiration Date:

Conditions of Approval Attached

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-41392	Pool Code 91913	Pool Name WILDCAT 8-06 CORRAL CANYON (BONE SPRING)
Property Code 306402 310001	Property Name PLU BIG SINKS 2-25-30 STATE	Well Number 3H
OGRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3361'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	25 S	30 E		50	SOUTH	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
3	2	25 S	30 E		50	NORTH	1980	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
160.32			

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.

NW COR SEC 2 NMSP-E (NAD 83) Y = 424864.9' N X = 687765.3' E 1980'	50' N 00°14'04" E 5236.8' 50'	PLU BIG SINKS 2-25-30 STATE-3H BHL NMSP-E (NAD 83) N (Y) = 424819.2' E (X) = 689745.2' LAT = 32°10'01.19"N LONG = 103°51'13.36"W NMSP-E (NAD 27) N (Y) = 424760.7' E (X) = 648560.5' LAT = 32.166873183°N LONG = 103.853228585°W	NE COR SEC 2 NMSP-E (NAD 83) Y = 424877.2' N X = 693089.9' E	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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Courtney Lockhart</i> Signature Date 4-30-13 COURTNEY LOCKHART Print Name cjlockhart@basspet.com E-mail Address
SW COR SEC 2 NMSP-E (NAD 83) Y = 419534.7' N X = 687743.4' E 1980'		PLU BIG SINKS 2-25-30 STATE-3H SHL NMSP-E (NAD 83) N (Y) = 419582.4' E (X) = 689723.8' LAT = 32°09'09.37"N LONG = 103°51'13.88"W NMSP-E (NAD 27) N (Y) = 419524.0' E (X) = 648538.9' LAT = 32.152478215°N LONG = 103.853373829°W	SE COR SEC 2 NMSP-E (NAD 83) Y = 419529.4' N X = 693075.5' E	SURVEYORS 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. April 11, 20013 Date of Survey Signature and Seal of Professional Surveyor <i>James E. Tompkins</i> Job No.: WTC49003 JAMES E. TOMPKINS 14729 Certificate Number

SITE LOCATION

PLU BIG SINKS 2-25-30
STATE-3H SHL

NMSP-E (NAD 83)

N (Y) = 419582.4'

E (X) = 689723.8'

LAT. = 32°09'09.37"N

LONG. = 103°51'13.88"W

NMSP-E (NAD 27)

N (Y) = 419524.0'

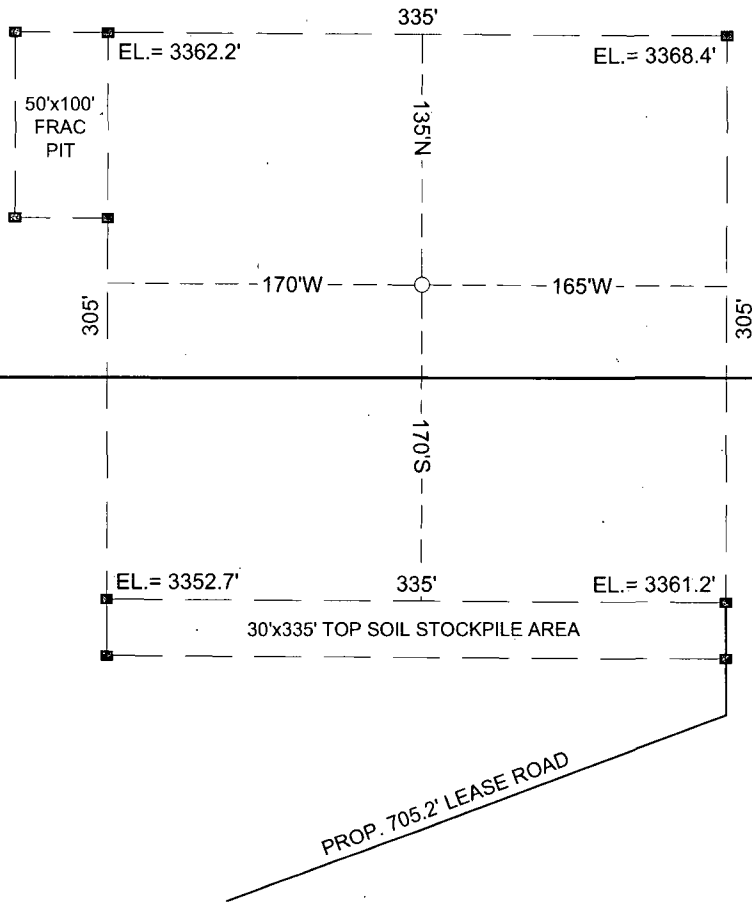
E (X) = 648538.9'

LAT. = 32.152478215°N

LONG. = 103.853373829°W

S2, T25S, R30E

S11, T25S, R30E



0 50 100 200

GRAPHIC SCALE 1" = 100'

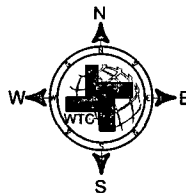
SECTION 2, T 25 S, R 30 E, N.M.P.M.

COUNTY: EDDY STATE: NM

DESCRIPTION: 50' FSL & 1980' FWL

OPERATOR: BOPCO, L.P.

WELL NAME: PLU BIG SINKS 2-25-30 STATE-3H



DRIVING DIRECTIONS:

From the Intersection of Buck Jackson Road and Twin Wells Road. Go south on Buck Jackson Road 1 mile and turn right. Go 0.8 mile and turn right. Go 0.2 mile to stake at proposed road that is on the northeast corner of an existing pad.



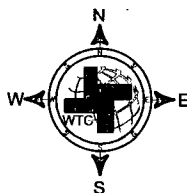
WEST TEXAS CONSULTANTS, INC.
ENGINEERS PLANNERS SURVEYORS
405 S.W. 1st. STREET
ANDREWS, TEXAS 79714
(432) 523-2181

BOPCO, L.P.

JOB No.: WTC49003



WELL NAME: PLU BIG SINKS 2-25-30 STATE-3H



From the Intersection of Buck Jackson Road and Twin Wells Road. Go south on Buck Jackson Road 1 mile and turn right. Go 0.8 mile and turn right. Go 0.2 mile to stake at proposed road that is on the northeast corner of an existing pad.



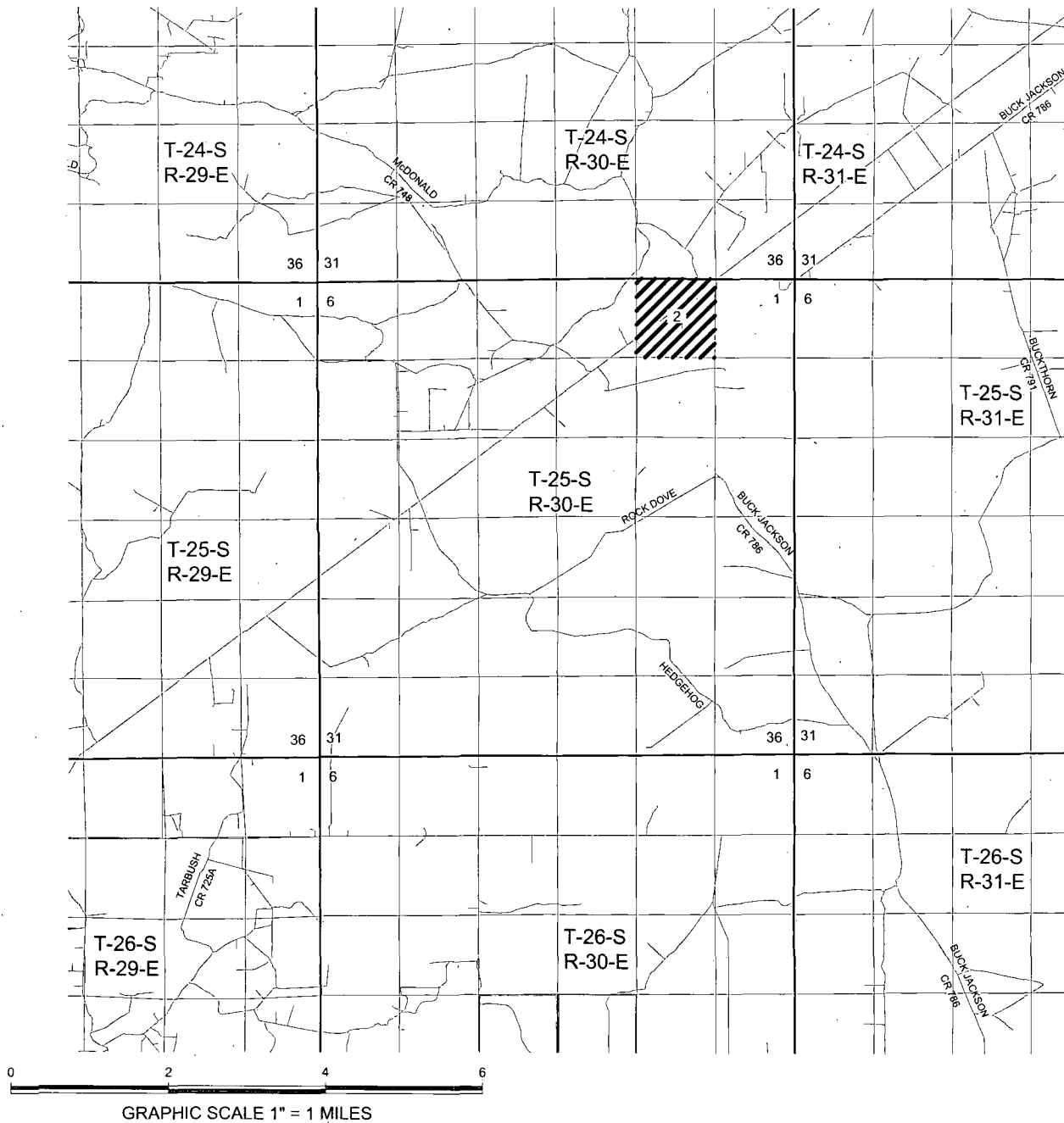
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BOPCO, L.P. 

JOB No.: WTC49003

Statewide \BSPN\BP1506\BSPN State BP1506\BSPN

VICINITY MAP



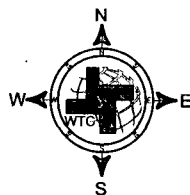
SECTION 2, T 25 S, R 30 E, N.M.P.M.

COUNTY: EDDY STATE: NM

DESCRIPTION: 50' FSL & 1980' FWL

OPERATOR: BOPCO, L.P.

WELL NAME: PLU BIG SINKS 2-25-30 STATE-3H



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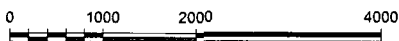
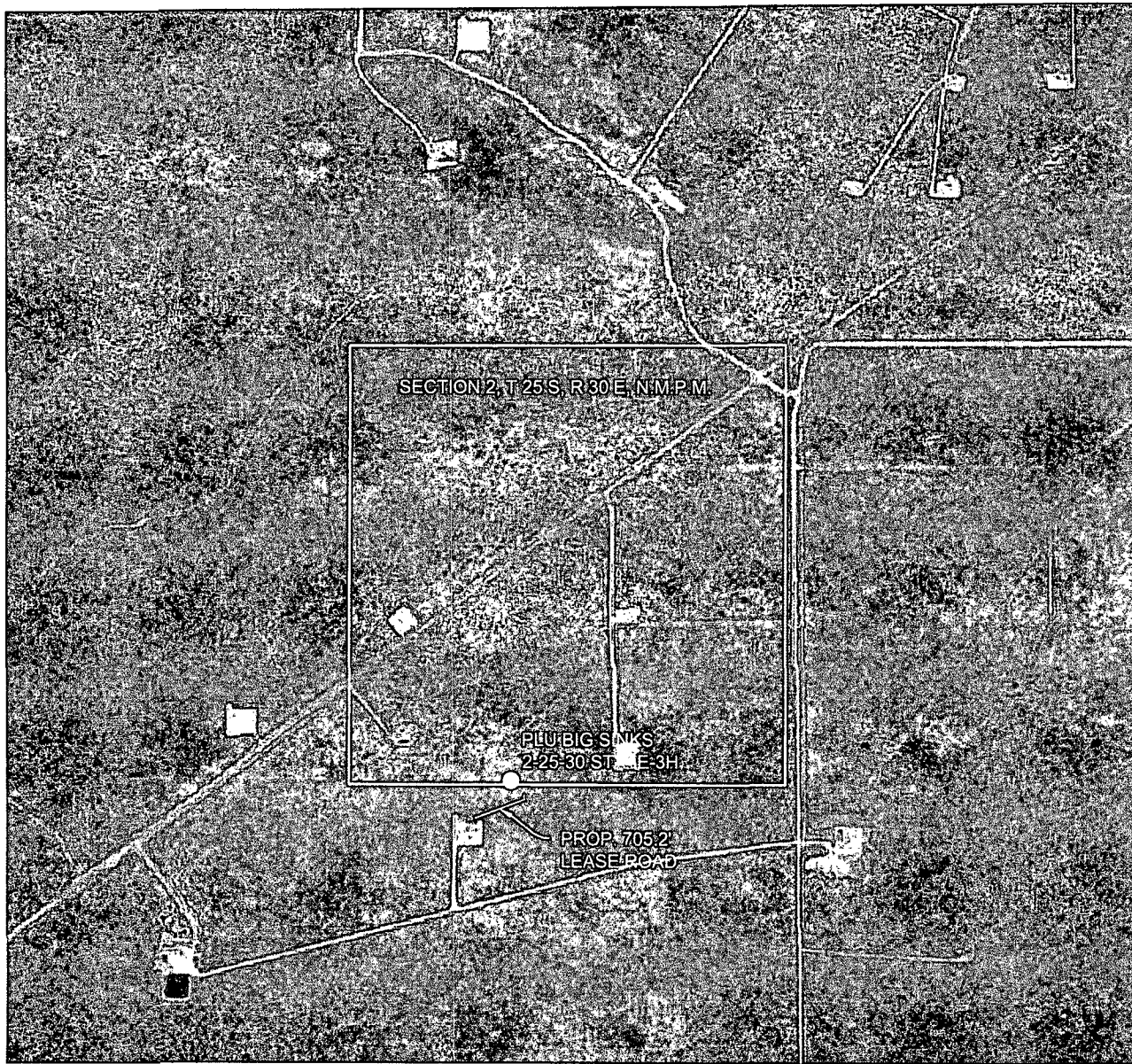


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BOPCO, L.P.

JOB No.: WTC49003

AERIAL MAP



GRAPHIC SCALE 1" = 2000'

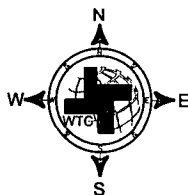
SECTION 2, T 25 S, R 30 E, N.M.P.M.

COUNTY: EDDY STATE: NM

DESCRIPTION: 50' FSL & 1980' FWL

OPERATOR: BOPCO, L.P.

WELL NAME: PLU BIG SINKS 2-25-30 STATE-3H



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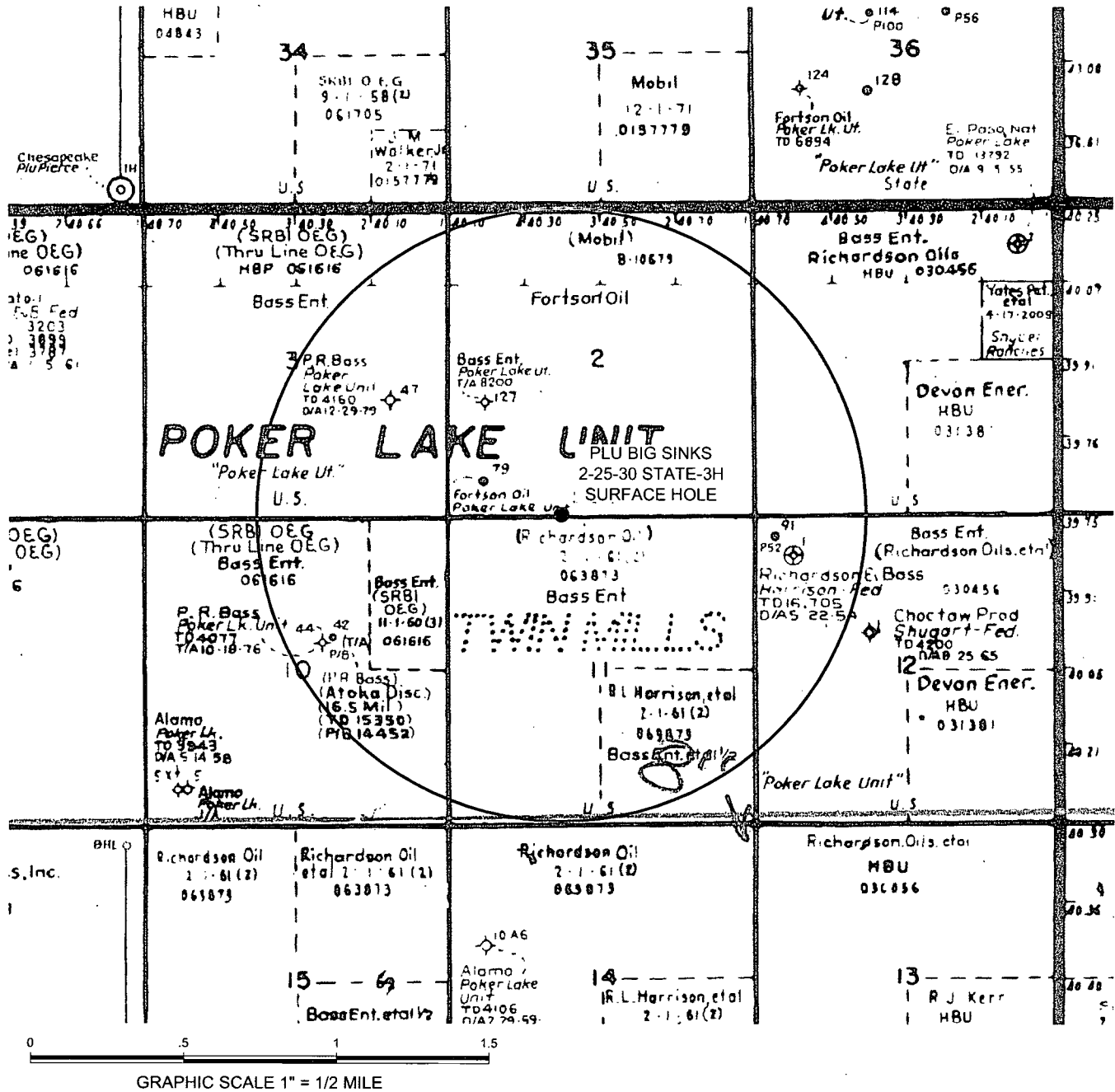


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BOPCO, L.P. 

JOB No.: WTC49003

SURFACE HOLE LOCATION



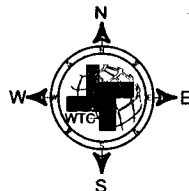
SECTION 2, T 25 S, R 30 E, N.M.P.M.

COUNTY: EDDY STATE: NM

DESCRIPTION: 50' FSL & 1980' FWL

OPERATOR: BOPCO, L.P.

WELL NAME: PLU BIG SINKS 2-25-30 STATE-3H



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From the Intersection of Buck Jackson Road and Twin Wells Road. Go south on Buck Jackson Road 1 mile and turn right. Go 0.8 mile and turn right. Go 0.2 mile to stake at proposed road that is on the northeast corner of an existing pad.

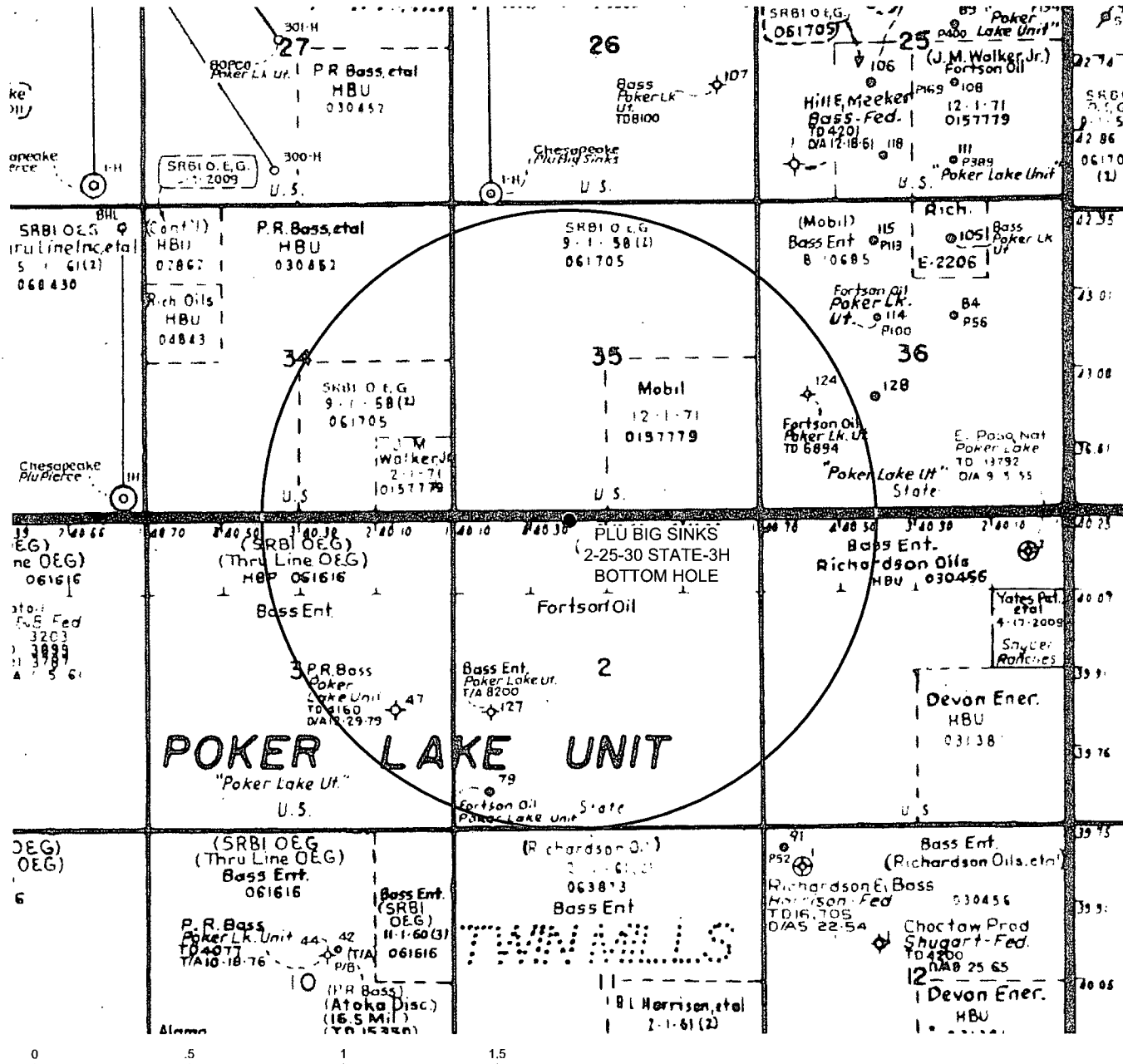


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BOPCO, L.P.

JOB No.: WTC49003

BOTTOM HOLE LOCATION



GRAPHIC SCALE 1" = 1/2 MILE

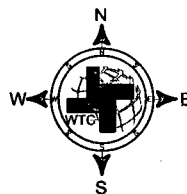
SECTION 2, T 25 S, R 30 E, N.M.P.M.

COUNTY: EDDY STATE: NM

DESCRIPTION: 50' FSL & 1980' FWL

OPERATOR: BOPCO, L.P.

WELL NAME: PLU BIG SINKS 2-25-30 STATE-3H



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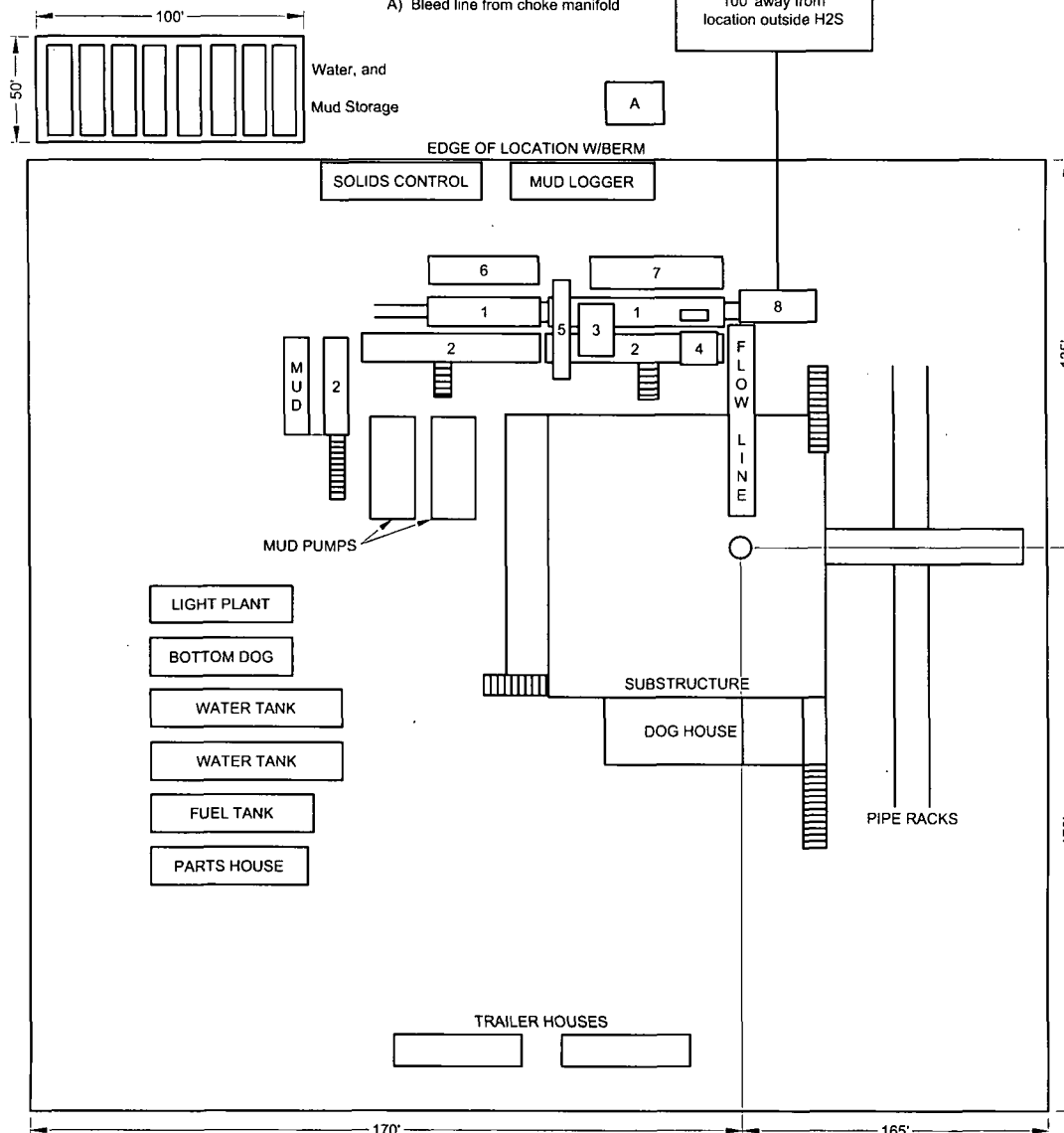
Exhibit "D"

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 | |



NOT TO SCALE

SECTION 2, T 25 S, R 30 E, N.M.P.M.

COUNTY: EDDY STATE: NM

DESCRIPTION: 50' FSL & 1980' FWL

OPERATOR: BOPCO, L.P.

WELL NAME: PLU BIG SINKS 2-25-30 STATE-3H

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BOPCO, L.P.

JOB No.: WTC49003

2. V:\Projects\G1 & G2\Sunco\BOPCO, L.P.\49003-BOPCO, L.P.\2-25-30 State 3H\Site 3H.dwg



Project: Eddy County, NM (NAD27 NME)
Site: PLU Big Sinks 2-25-30 State
Well: #3H
Wellbore: OH / Job #1310510
Design: Plan #1 04-29-13
Rig: Latshaw 14



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: -0.25°
Magnetic North: 7.23°
Magnetic Field
Strength: 48355.7nT
Dip Angle: 60.03°
Date: 04/29/2013
Model: IGRF2010_14

WELL DETAILS						
+N-S	+E-W	Northing	Ground Level:	3361.00	Latitude	Longitude
0.00	0.00	419524.00	Easting	648538.90	32° 9' 8.921144 N	103° 51' 12.145926 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8723.90	0.00	0.00	8723.90	0.00	0.00	0.00	0.00	0.00	KOP Start DLS 12.00 TFO 0.24
3	9470.34	89.68	0.24	9200.46	474.80	1.95	12.00	0.24	474.80	LP Start 4762.01 hold at 9470.34 MD
4	14232.35	89.68	0.24	9227.00	5236.70	21.60	0.00	0.00	5236.74	PBHL-PLU Big Sinks 2-25-30 #3H TD at 14232.35

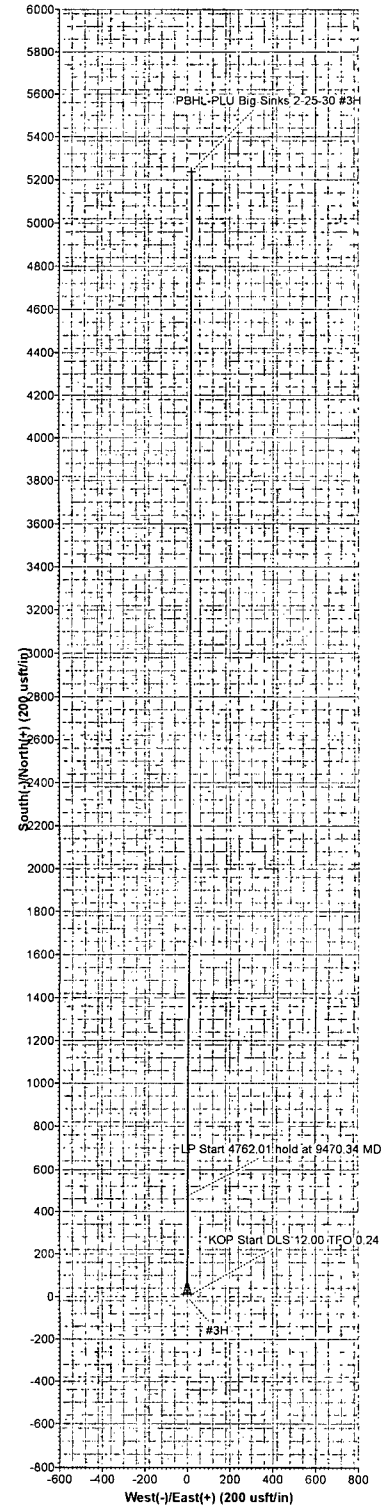
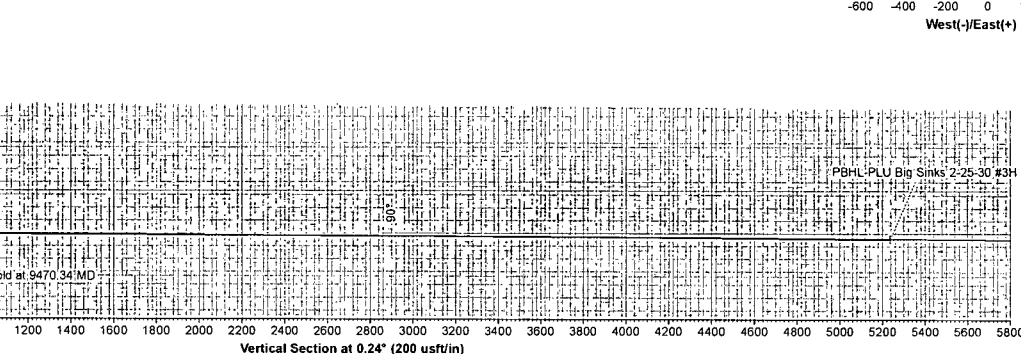
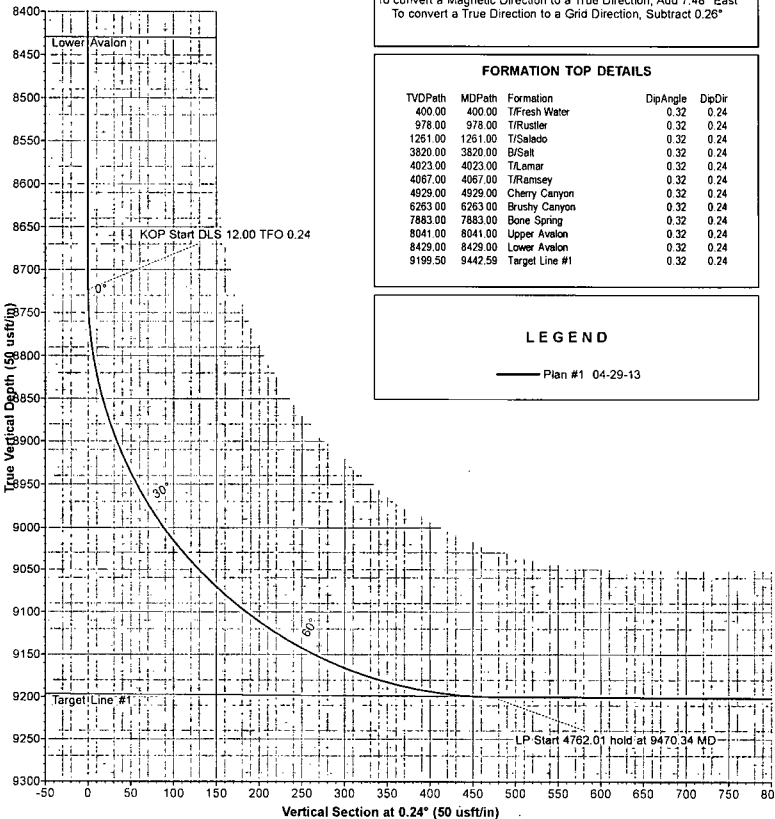
DESIGN TARGET DETAILS						
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude
PBHL-PLU Big Sinks 2-25-30 #3H	8227.00	5236.70	21.60	424760.70	648560.50	32° 10' 0.743290 N
- plan hits target center						
Longitude Shape						
103° 51' 11.622984 W Point						

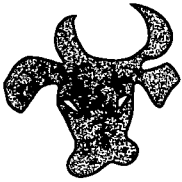
SITE DETAILS: PLU Big Sinks 2-25-30 State	
See Centre Northing:	397909.00
Easting:	636627.00
Positional Uncertainty:	0.00
Convergence:	0.23
Local North:	Grid

PROJECT DETAILS: Eddy County, NM (NAD27 NME)	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

Map System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone Name:	New Mexico East 3001
Local Origin:	Well #3H, Grid North
Latitude:	32° 9' 8.921144 N
Longitude:	103° 51' 12.145926 W
Grid East:	648538.90
Grid North:	419524.00
Scale Factor:	1.000
Geomagnetic Model:	IGRF2010_14
Sample Date:	29-Apr-13
Magnetic Declination:	7.48°
Dip Angle from Horizontal:	60.03°
Magnetic Field Strength:	48356

To convert a Magnetic Direction to a Grid Direction, Add 7.23°
To convert a Magnetic Direction to a True Direction, Add 7.48° East
To convert a True Direction to a Grid Direction, Subtract 0.26°





Bopco L P

**Eddy County, NM (NAD27 NME)
PLU Big Sinks 2-25-30 State
#3H**

OH / Job #1310510

Plan: Plan #1 04-29-13

Standard Planning Report

29 April, 2013



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services

Planning Report



Database	GCR DB	Local Co-ordinate Reference:	Well #3H
Company	Bopco L P	TVD Reference:	KB @ 3381.00usft (Latshaw 14)
Project	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3381.00usft (Latshaw 14)
Site	PLU Big Sinks 2-25-30 State	North Reference:	Grid
Well	#3H	Survey Calculation Method:	Minimum Curvature
Wellbore	OH / Job #1310510		
Design	Plan #1 04-29-13		

Project	Eddy County, NM (NAD27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	PLU Big Sinks 2-25-30 State		
Site Position:		Northing:	397,909.00 usft
From:	Map	Easting:	636,627.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 35.518179 N
		Longitude:	103° 53' 31.734916 W
		Grid Convergence:	0.23 °

Well	#3H		
Well Position	+N/-S	21,615.00 usft	Northing:
	+E/-W	11,911.90 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	
		Latitude:	32° 9' 8.921144 N
		Longitude:	103° 51' 12.145926 W
		Ground Level:	3,361.00 usft

Wellbore	OH / Job #1310510		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	04/29/13	7.48
			Dip Angle
			60.03
			Field Strength
			48,356

Design	Plan #1 04-29-13		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			0.24

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,723.00	0.00	0.00	8,723.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,470.34	89.68	0.24	9,200.46	474.80	1.96	12.00	12.00	0.03	0.24	
14,232.35	89.68	0.24	9,227.00	5,236.70	21.60	0.00	0.00	0.00	0.00	PBHL-PLU Big Sinks



Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #3H
Company:	Bopco L P	TVD Reference:	KB @ 3381.00usft (Latshaw 14)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	KB @ 3381.00usft (Latshaw 14)
Site:	PLU Big Sinks 2-25-30 State	North Reference:	Grid
Well:	#3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1310510		
Design:	Plan #1 04-29-13		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
T/Fresh Water									
978.00	0.00	0.00	978.00	0.00	0.00	0.00	0.00	0.00	0.00
T/Rustler									
1,261.00	0.00	0.00	1,261.00	0.00	0.00	0.00	0.00	0.00	0.00
T/Salado									
3,820.00	0.00	0.00	3,820.00	0.00	0.00	0.00	0.00	0.00	0.00
B/Salt									
4,023.00	0.00	0.00	4,023.00	0.00	0.00	0.00	0.00	0.00	0.00
T/Lamar									
4,067.00	0.00	0.00	4,067.00	0.00	0.00	0.00	0.00	0.00	0.00
T/Ramsey									
4,929.00	0.00	0.00	4,929.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
6,263.00	0.00	0.00	6,263.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
7,883.00	0.00	0.00	7,883.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring									
8,041.00	0.00	0.00	8,041.00	0.00	0.00	0.00	0.00	0.00	0.00
Upper Avalon									
8,429.00	0.00	0.00	8,429.00	0.00	0.00	0.00	0.00	0.00	0.00
Lower Avalon									
8,723.00	0.00	0.00	8,723.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start DLS 12.00 TFO 0.24									
8,800.00	9.24	0.24	8,799.67	6.20	0.03	6.20	12.00	12.00	0.00
8,900.00	21.24	0.24	8,895.97	32.43	0.13	32.43	12.00	12.00	0.00
9,000.00	33.24	0.24	8,984.72	78.12	0.32	78.12	12.00	12.00	0.00
9,100.00	45.24	0.24	9,062.03	141.26	0.58	141.26	12.00	12.00	0.00
9,200.00	57.24	0.24	9,124.52	219.10	0.90	219.10	12.00	12.00	0.00
9,300.00	69.24	0.24	9,169.46	308.22	1.27	308.23	12.00	12.00	0.00
9,400.00	81.24	0.24	9,194.90	404.75	1.67	404.75	12.00	12.00	0.00
9,442.59	86.35	0.24	9,199.50	447.08	1.84	447.08	12.00	12.00	0.00
Target Line #1									
9,470.34	89.68	0.24	9,200.46	474.80	1.96	474.80	12.00	12.00	0.00
LP Start 4762.01 hold at 9470.34 MD									
9,500.00	89.68	0.24	9,200.62	504.46	2.08	504.46	0.00	0.00	0.00
9,600.00	89.68	0.24	9,201.18	604.46	2.49	604.46	0.00	0.00	0.00
9,700.00	89.68	0.24	9,201.74	704.46	2.91	704.46	0.00	0.00	0.00
9,800.00	89.68	0.24	9,202.30	804.45	3.32	804.46	0.00	0.00	0.00
9,900.00	89.68	0.24	9,202.85	904.45	3.73	904.46	0.00	0.00	0.00
10,000.00	89.68	0.24	9,203.41	1,004.45	4.14	1,004.46	0.00	0.00	0.00
10,100.00	89.68	0.24	9,203.97	1,104.45	4.56	1,104.46	0.00	0.00	0.00
10,200.00	89.68	0.24	9,204.52	1,204.44	4.97	1,204.45	0.00	0.00	0.00
10,300.00	89.68	0.24	9,205.08	1,304.44	5.38	1,304.45	0.00	0.00	0.00
10,400.00	89.68	0.24	9,205.64	1,404.44	5.79	1,404.45	0.00	0.00	0.00
10,500.00	89.68	0.24	9,206.20	1,504.44	6.21	1,504.45	0.00	0.00	0.00
10,600.00	89.68	0.24	9,206.75	1,604.43	6.62	1,604.45	0.00	0.00	0.00
10,700.00	89.68	0.24	9,207.31	1,704.43	7.03	1,704.45	0.00	0.00	0.00
10,800.00	89.68	0.24	9,207.87	1,804.43	7.44	1,804.44	0.00	0.00	0.00
10,900.00	89.68	0.24	9,208.43	1,904.43	7.86	1,904.44	0.00	0.00	0.00
11,000.00	89.68	0.24	9,208.98	2,004.42	8.27	2,004.44	0.00	0.00	0.00
11,100.00	89.68	0.24	9,209.54	2,104.42	8.68	2,104.44	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #3H
Company:	Bopco L.P.	TVD Reference:	KB @ 3381'00usft (Latshaw 14)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3381'00usft (Latshaw 14)
Site:	PLU Big Sinks 2-25-30 State	North Reference:	Grid
Well:	#3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1310510		
Design:	Plan #1 04-29-13		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,200.00	89.68	0.24	9,210.10	2,204.42	9.09	2,204.44	0.00	0.00	0.00
11,300.00	89.68	0.24	9,210.66	2,304.42	9.51	2,304.44	0.00	0.00	0.00
11,400.00	89.68	0.24	9,211.21	2,404.41	9.92	2,404.43	0.00	0.00	0.00
11,500.00	89.68	0.24	9,211.77	2,504.41	10.33	2,504.43	0.00	0.00	0.00
11,600.00	89.68	0.24	9,212.33	2,604.41	10.74	2,604.43	0.00	0.00	0.00
11,700.00	89.68	0.24	9,212.89	2,704.41	11.15	2,704.43	0.00	0.00	0.00
11,800.00	89.68	0.24	9,213.44	2,804.40	11.57	2,804.43	0.00	0.00	0.00
11,900.00	89.68	0.24	9,214.00	2,904.40	11.98	2,904.43	0.00	0.00	0.00
12,000.00	89.68	0.24	9,214.56	3,004.40	12.39	3,004.43	0.00	0.00	0.00
12,100.00	89.68	0.24	9,215.11	3,104.40	12.80	3,104.42	0.00	0.00	0.00
12,200.00	89.68	0.24	9,215.67	3,204.40	13.22	3,204.42	0.00	0.00	0.00
12,300.00	89.68	0.24	9,216.23	3,304.39	13.63	3,304.42	0.00	0.00	0.00
12,400.00	89.68	0.24	9,216.79	3,404.39	14.04	3,404.42	0.00	0.00	0.00
12,500.00	89.68	0.24	9,217.34	3,504.39	14.45	3,504.42	0.00	0.00	0.00
12,600.00	89.68	0.24	9,217.90	3,604.39	14.87	3,604.42	0.00	0.00	0.00
12,700.00	89.68	0.24	9,218.46	3,704.38	15.28	3,704.41	0.00	0.00	0.00
12,800.00	89.68	0.24	9,219.02	3,804.38	15.69	3,804.41	0.00	0.00	0.00
12,900.00	89.68	0.24	9,219.57	3,904.38	16.10	3,904.41	0.00	0.00	0.00
13,000.00	89.68	0.24	9,220.13	4,004.38	16.52	4,004.41	0.00	0.00	0.00
13,100.00	89.68	0.24	9,220.69	4,104.37	16.93	4,104.41	0.00	0.00	0.00
13,200.00	89.68	0.24	9,221.25	4,204.37	17.34	4,204.41	0.00	0.00	0.00
13,300.00	89.68	0.24	9,221.80	4,304.37	17.75	4,304.41	0.00	0.00	0.00
13,400.00	89.68	0.24	9,222.36	4,404.37	18.17	4,404.40	0.00	0.00	0.00
13,500.00	89.68	0.24	9,222.92	4,504.36	18.58	4,504.40	0.00	0.00	0.00
13,600.00	89.68	0.24	9,223.48	4,604.36	18.99	4,604.40	0.00	0.00	0.00
13,700.00	89.68	0.24	9,224.03	4,704.36	19.40	4,704.40	0.00	0.00	0.00
13,800.00	89.68	0.24	9,224.59	4,804.36	19.82	4,804.40	0.00	0.00	0.00
13,900.00	89.68	0.24	9,225.15	4,904.35	20.23	4,904.40	0.00	0.00	0.00
14,000.00	89.68	0.24	9,225.71	5,004.35	20.64	5,004.39	0.00	0.00	0.00
14,100.00	89.68	0.24	9,226.26	5,104.35	21.05	5,104.39	0.00	0.00	0.00
14,200.00	89.68	0.24	9,226.82	5,204.35	21.47	5,204.39	0.00	0.00	0.00
14,232.35	89.68	0.24	9,227.00	5,236.70	21.60	5,236.74	0.00	0.00	0.00
TD at 14232.35 PBHL-PLU Big Sinks 2-25-30 #3H									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
PBHL-PLU Big Sinks 2-25-30 #3H	0.00	0.01	9,227.00	5,236.70	21.60	424,760.70	648,560.50	32° 10' 0.743290 N	103° 51' 11.622984 W
- plan hits target center									
- Point									



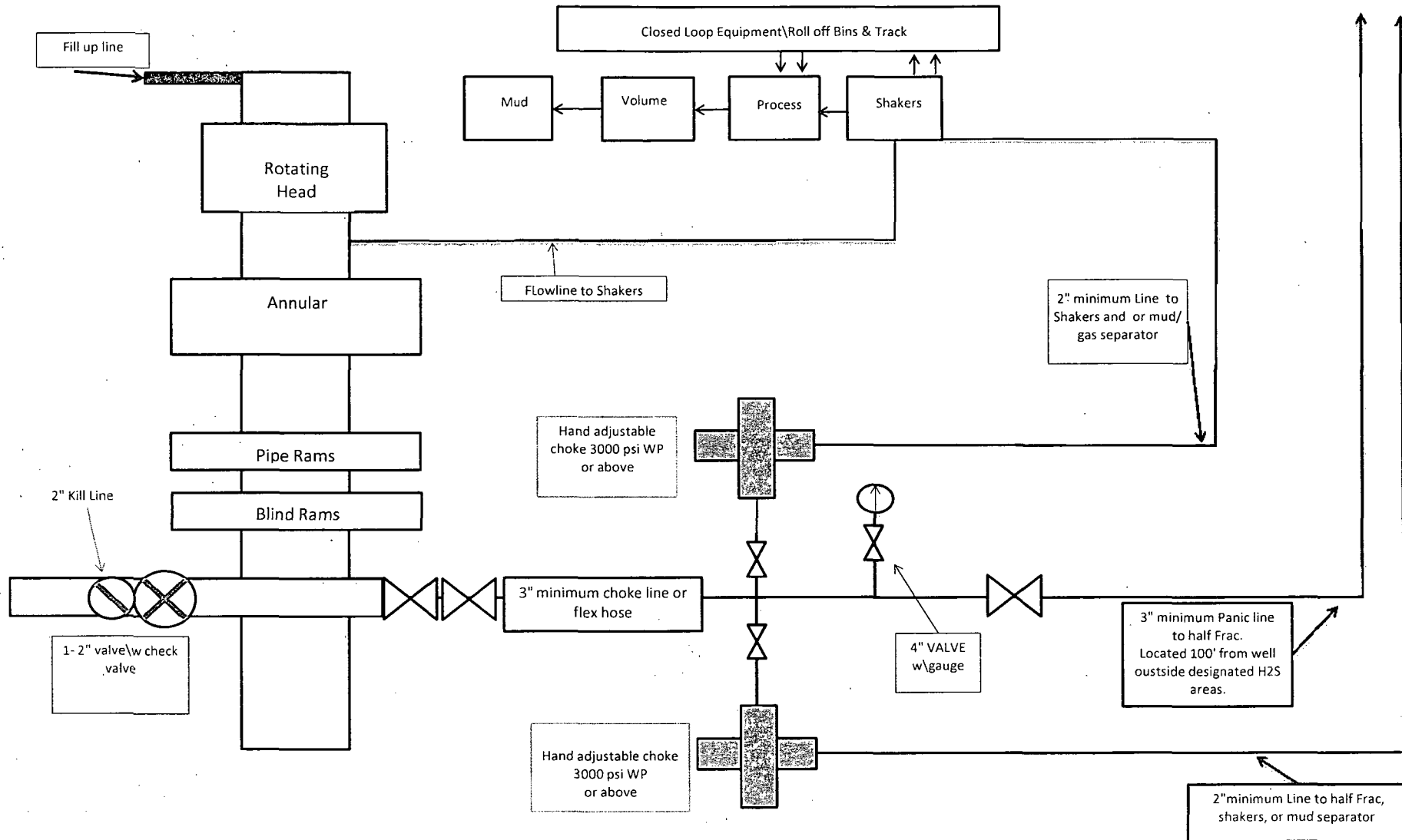
Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #3H
Company:	Bopco L.P.	TVD Reference:	KB @ 3381.00usft (Latshaw 14)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3381.00usft (Latshaw 14)
Site:	PLU Big Sinks 2-25-30 State	North Reference:	Grid
Well:	#3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH / Job #1310510		
Design:	Plan #1 04-29-13		

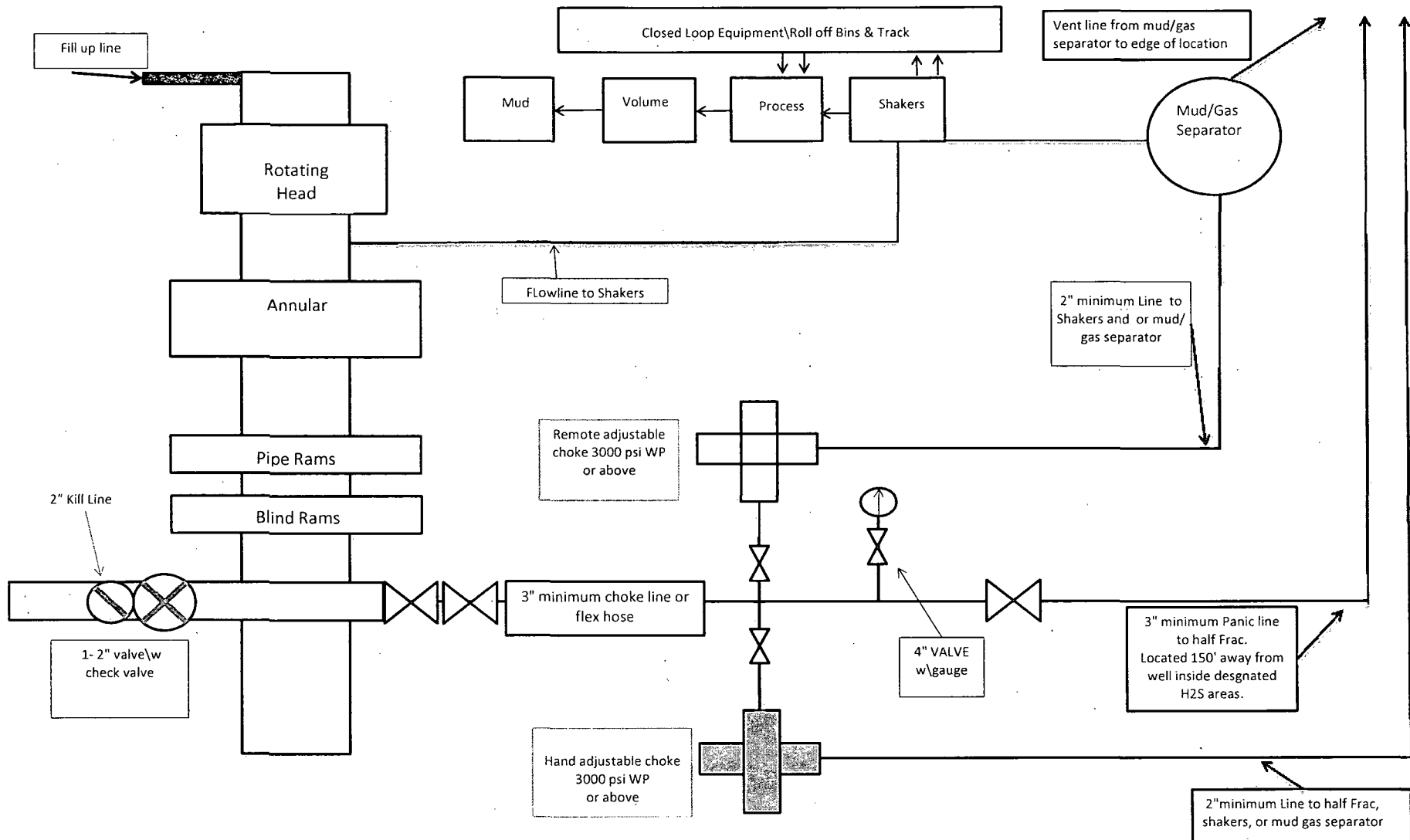
Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
400.00	400.00	T/Fresh Water		0.32	0.24
978.00	978.00	T/Rustler		0.32	0.24
1,261.00	1,261.00	T/Salado		0.32	0.24
3,820.00	3,820.00	B/Salt		0.32	0.24
4,023.00	4,023.00	T/Lamar		0.32	0.24
4,067.00	4,067.00	T/Ramsey		0.32	0.24
4,929.00	4,929.00	Cherry Canyon		0.32	0.24
6,263.00	6,263.00	Brushy Canyon		0.32	0.24
7,883.00	7,883.00	Bone Spring		0.32	0.24
8,041.00	8,041.00	Upper Avalon		0.32	0.24
8,429.00	8,429.00	Lower Avalon		0.32	0.24
9,442.59	9,199.50	Target Line #1		0.32	0.24

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,723.00	8,723.00	0.00	0.00	KOP Start DLS 12.00 TFO 0.24
9,470.34	9,200.46	474.80	1.96	LP Start 4762.01 hold at 9470.34 MD
14,232.35	9,227.00	5,236.70	21.60	TD at 14232.35



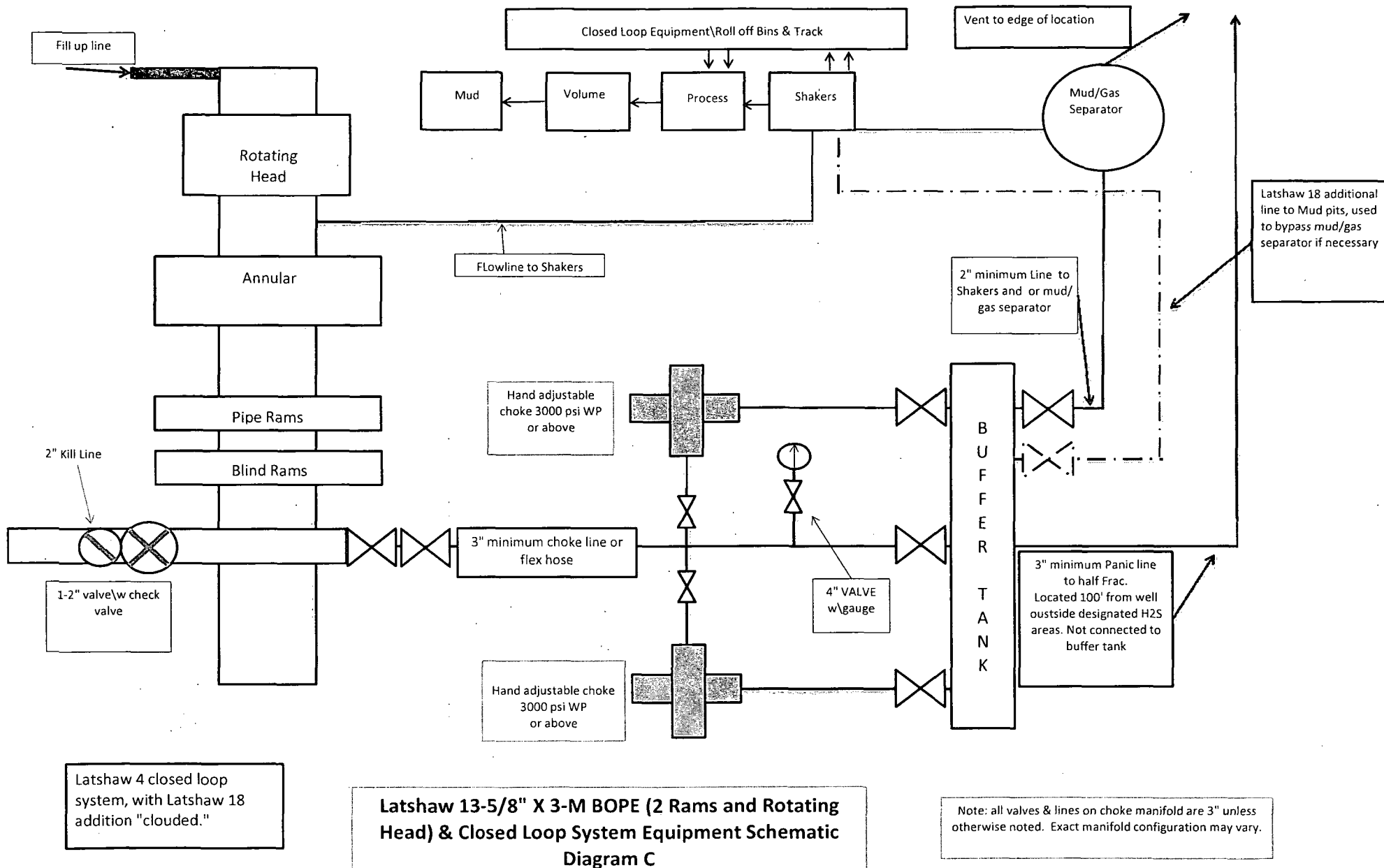
**13-5/8" X 3-M BOPE (2 Rams and Rotating Head) &
Closed Loop System Equipment Schematic
Diagram A**

Note: all valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.



13-5/8" X 3-M BOPE (2 Rams and Rotating Head) & Closed Loop System Equipment Schematic
H2S contingency
Diagram B

Note: all valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.



Permit Conditions of Approval

API: 30-015-41392

OCD Reviewer	Condition
CSHAPARD	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string