Form 3160-5
(August 2007)

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.

5. Lease Serial No.
NMNM02447

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
BIG EDDY UNIT 256H

2. Name of Operator
BOPCO, L.P.
Contact: NAOMI G O'DONNELL
E-Mail: ngodonnell@basspet.com

9. API Well No.

3a. Address
P.O. BOX 2760
MIDLAND, TX 79702

3b. Phone No. (include area code)
Ph: 432-683-2277

10. Field and Pool, or Exploratory
HACKBERRY;BONESPRING,EAST

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 33 T19S R31E 1670FSL 2630FEL
32.614117 N Lat, 103.873631 W Lon

11. County or Parish, and State
EDDY COUNTY 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 to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 change the 8 pt drilling program as attached.

LBDade 6/26/13
Accepted for record
NMOCD

RECEIVED
JUN 25 2013
NMOCD ARTESIA

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #210508 verified by the BLM Well Information System
For BOPCO, L.P., sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 06/18/2013 ()

Name *(Printed/Typed)* CHRISTOPHER W GIESE — Title DRILLING ENGINEER

Signature (Electronic Submission) — Date 06/12/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED
JUN 21 2013
/s/ Chris Walls
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Approved By _____ Title _____ Date

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

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

EIGHT POINT DRILLING PROGRAM
BOPCO, L.P.

Anticipated Formation Tops: KB 3,485' (estimated)
GL 3,456'

FORMATION	TOP EST FROM KB (TVD)	MD	SUB-SEA TOP	BEARING
T/Fresh Water	125'	125'	+ 3,360'	Fresh Water
Rustler Anhydrite	885'	885'	+ 2,600'	Barren
T/Salt	1,025'	1,025'	+ 2,460'	Barren
B/Salt	2,310'	2,310'	+ 1,175'	Barren
T/Yates	2,435'	2,435'	+ 1,050'	Oil/Gas
T/Reef	2,685'	2,685'	+ 800'	Water
T/Delaware Mnt. Group	4,135'	4,135'	- 650'	Oil/Gas
Bone Spring	6,930'	6,930'	- 3,445'	Oil/Gas
1st Bone Spring Sand	8,245'	8,245'	- 4,760'	Oil/Gas
KOP	8,430'	8,430'	- 4,945'	Oil/Gas
2nd Bone Spring A' Sand	8,975'	9,148'	- 5,490'	Oil/Gas
2nd Bone Spring A Sand	9,005'	9,236'	- 5,520'	Oil/Gas
2nd Bone Spring B Sand	9,083'	9,539'	- 5,598'	Oil/Gas
EOC	9,107'	9,787'	- 5,622'	Oil/Gas
TD Horizontal Hole	9,220'	15,252'	- 5,735'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVALS	HOLE SIZE	PURPOSE	CONDITION
20"	0' – 120'	30"	Conductor	Contractor Design
16", 84 ppf, J-55, BT&C	0' – 1,000'	18-1/8"	Surface	New
13-3/8", 68 ppf, HCL-80 Ultra Flush Joint	0' – 2,635'	14-3/4"	First Intermediate	New
See COA 9-5/8", 40 ppf, J-55, LT&C* or 9-5/8", HCP-110, LT&C*	0' – ~~4,235'~~ 4300	12-1/4"	Second Intermediate	New
7", 26 ppf, HCP-110, Buttress or 8rd LTC*	0' – 9,230'	8-3/4"	Third Intermediate	New
4-1/2", 11.6 ppf, HCP-110 8rd, LT&C*	9,180' – 15,252'	6-1/8"	Completion	New

*** Depending on availability**
CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
16", 84 ppf, J-55, BT&C	18.37	2.89	1.93
13-3/8", 68 ppf, HCL-80 Ultra Flush Joint	4.77	1.67	3.41
9-5/8", 40 ppf, J-55, LT&C	4.31	1.16	1.67

9-5/8", 40 ppf, HCP-110	6.76	2.05	3.34
Production			
7", 26 ppf, HCP-110, Buttress or 8rd LTC*	3.43	1.59	1.98

Completion System			
4-1/2", 11.6 ppf, HCP-110 8rd. LT&C	3.98	1.77	2.08
4-1/2", 11.6 ppf, HCP-110 BTC	3.02	1.66	2.08

*** Depending on availability.**

INTERVAL	AMT SXS	FT OF FILL	TYPE	GAL/SX	PPG	FT3/SX
Surface:						
See COA Lead: 0' – 700'	300	700'	Class C + 5% Salt + 0.7% Econolite	9.98	12.9	1.88
Tail: 700' – 1,000'	220	300'	Class C + 2% CACL + 0.25 LB/SK CF	6.35	14.80	1.35
Intermediate 1:						
Lead: 0' – 2,135'	410	2,135'	EconoCem HLC +5% salt	9.32	12.90	1.85
Tail: 2,135' – 2,635'	220	500'	HalCem C	6.34	14.80	1.33
Intermediate 2:						
Stage:1						
Tail: 2,685' – 4,235'	450	1,550'	HalCem C 4% bentonite + 0.6% Halad(R)-9	8.69	13.6	1.71
External Casing Packer and DV Tool @ 2,685'						
Stage 2:						
Lead: 0' – 2,385'	540	2,385'	EconoCem HLC + NaCL	9.83	12.90	1.85
Tail: 2,385' – 2,685'	110	300'	HalCem C	6.34	14.80	1.33

Third Intermediate/Production Stage:1 Lead: 5,000' - 8,430'	300	3,430'	VariCem H + 0.55% Halad(R) -344	14.87	11.0	2.64
Tail: 8,430' – 9,230'	100	800'	Tuned Light + 0.125 pps Poly-E-Flake	11.41	12.0	2.03
DV tool @ 5,000' Stage: 2 Lead: 2,635' – 5,000'	230	2,365'	Tuned Light + 0.125 pps Poly-E-Flake	11.70	11.0	2.35

Cement excesses will be as follows

Surface – 100% excess above gauge hole with cement circulated to surface
1st Intermediate – 100% excess above gauge hole with cement circulated to surface.
2nd Intermediate – 30% excess above fluid caliper for both stages with cement circulated to surface.
3rd Intermediate/Production – 50% excess above gauge hole with cemented circulated 50' above the Capitan reef.

Cement volumes will be adjusted proportionately for depth changes of the multi stage tool.

F) DIRECTIONAL DRILLING

BOPCO, L.P. plans to drill out the 9-5/8" intermediate casing with a 8-3/4" bit to a TVD of approximately 8,430' at which point a directional hole will be kicked off and drilled at an azimuth of 61.80 degrees, building angle at 10.00 deg/100' to 70.0 degrees at a TVD of 8,968' (9,130' MD). This angle and azimuth will be maintained for 100' to a measured depth of approximately 9,230' (9,003' TVD). At this depth 7", 26#, HCP-110, LTC casing will be installed and cemented in two stages (DV Tool @ approximately 5000') with cement circulated 50' above the Capitan reef. A 6-1/8" open hole lateral will then be drilled out from 7" casing at an azimuth of 90.00 degrees, inclination of 88.82 degrees to a measured depth of approximately 15,252' MD (9,220' TVD). At this depth a 4-1/2" Completion System with packers installed for zone isolation will be run into the producing lateral.

G)COMPLETION SYSTEM

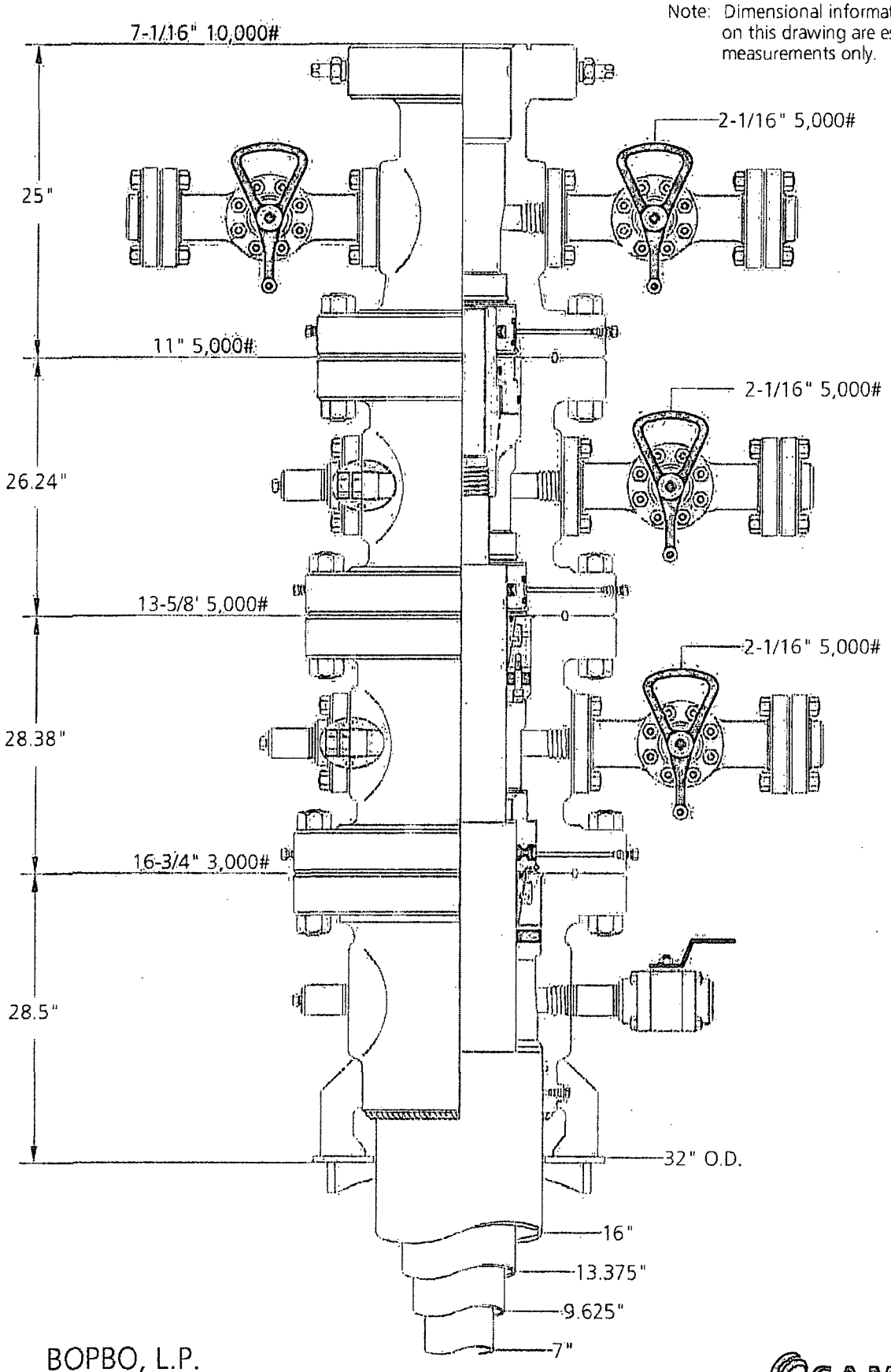
A 4-1/2" completion system with open hole packers will be run in the producing lateral to a depth of 15,252'. The top of the Completion System will be set at approximately 9,180' MD. Cement will not be required for this system.

See APD for previous Casing-Pressure control requirements.

For the 7" intermediate casing, a Cameron MBS style multibowl wellhead system will be used. After running and cementing the 7", third intermediate casing string, the BOP stack will not need to be removed in order to install the casing mandrel packoff. The mandrel packoff, lockdown screws, and wellhead to BOP flange will be tested to the full working pressure of the system at 3,000 psi. The 7" casing string will also be tested as per Onshore Order #2 prior to drilling out the shoe. The Cameron wellhead diagram is attached for reference.
BOPCO, L.P. would like to request a variance to use an armored, 3", 5000 psi WP flex hose for the choke line in the drilling of the well if the rig is equip with hose. (See specification for hose that might be used, attached with APD exhibits). This is rig equipment and will help quicken nipple up time thus saving money

without a safety problem. The hose itself is rated to 5000 psi, and has 5000 psi flanges on each end. This well is to be drilled to approximately 15,252' MD (9,220' TVD) and max surface pressure should be +/- 2,286 psi as prescribed in Onshore Order #2 shown as max BHP minus 0.22 psi/ft. Thus, 3000 psi BOPE is all that is needed for this well. **Please refer to diagrams A, B, or C for choke manifold and closed loop system layout. If an armored flex hose is utilized, the company man will have all of the proper certified paper work for that hose available on location.**

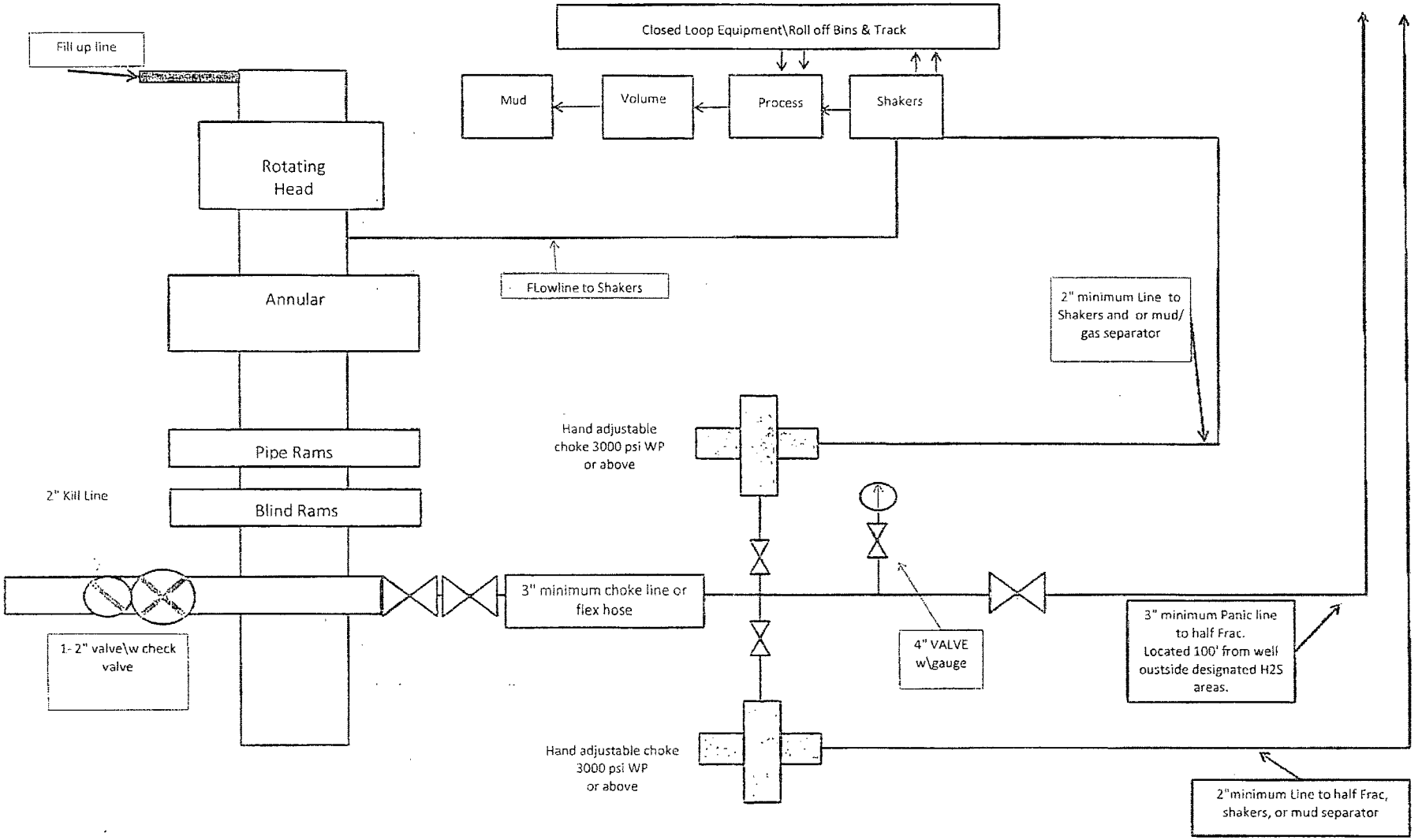
Note: Dimensional information reflected on this drawing are estimated measurements only.



BOPBO, L.P.
Well: Big Eddy Unit #256H
Conventional Wellhead
Casing Design: 16" x 13.375" x 9.625" x 7"

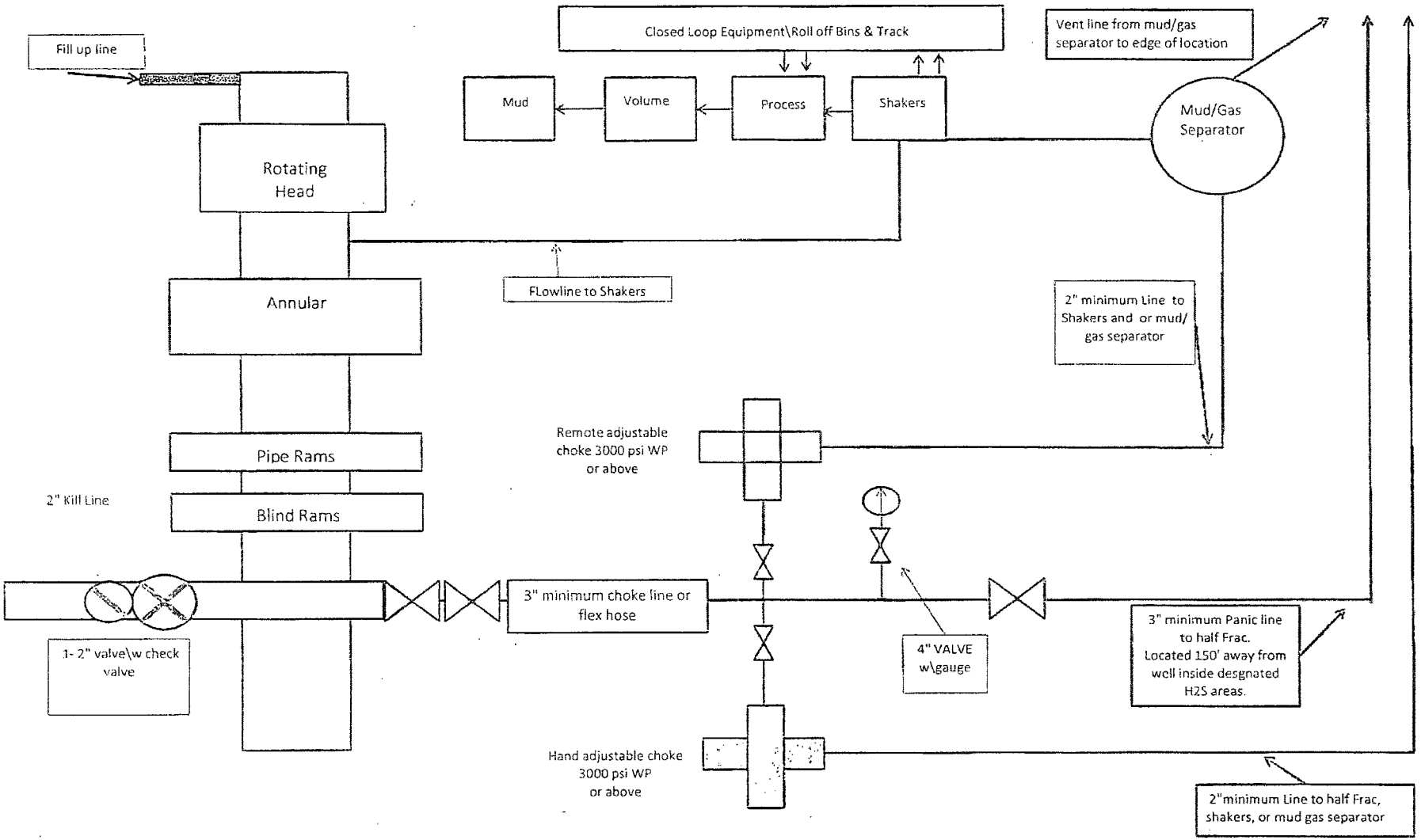
CAMERON

Name:	Jeanette	Date:	6-6-13	Working Pressure:	#	21095943



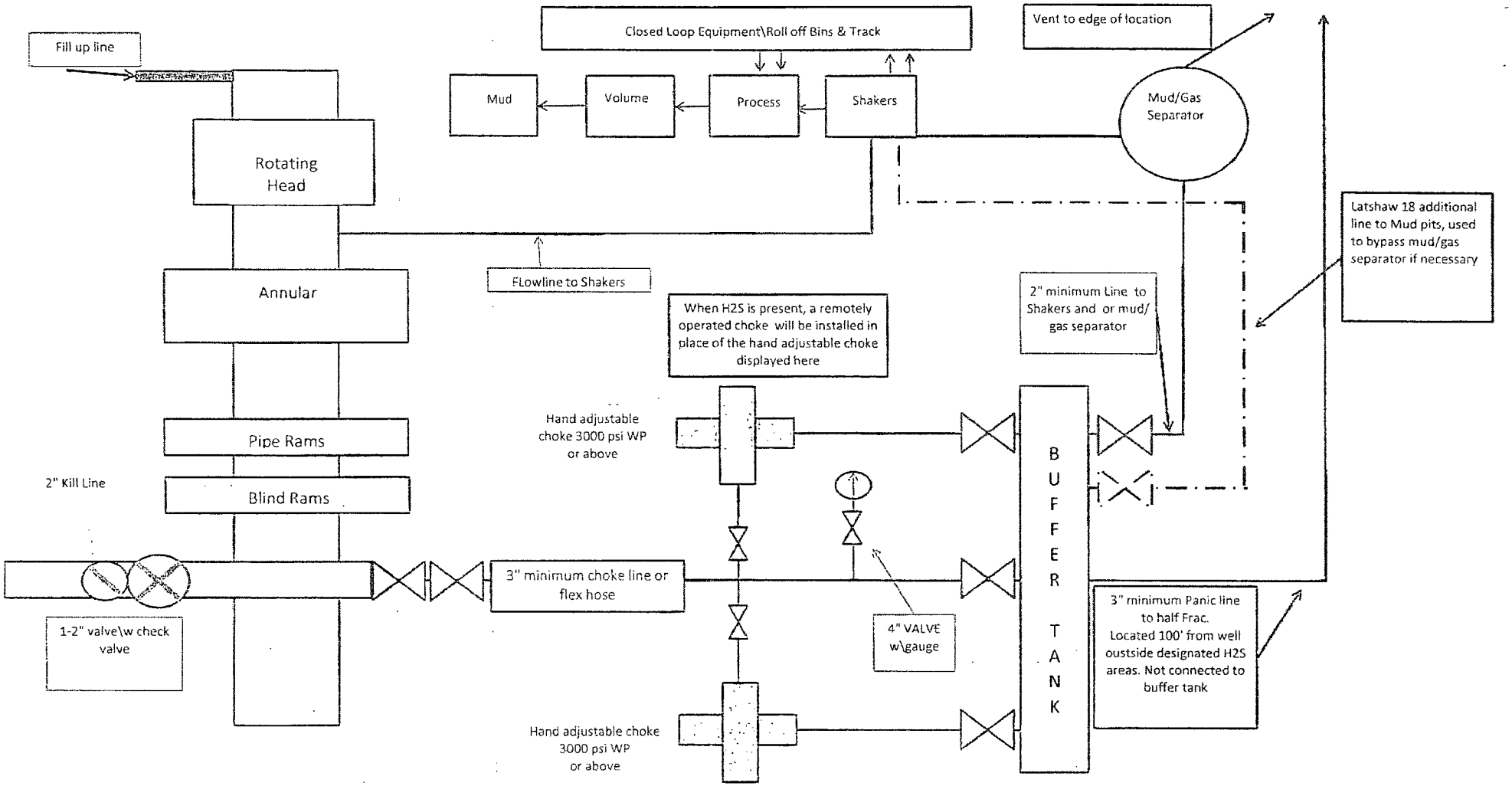
13-5/8" X 3-M BOPE (2 Rams and Rotating Head) & Closed Loop System Equipment Schematic
Diagram A

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.



Latshaw 4 closed loop system, with Latshaw 18 addition "clouded."

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

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

BOPCO, L.P.

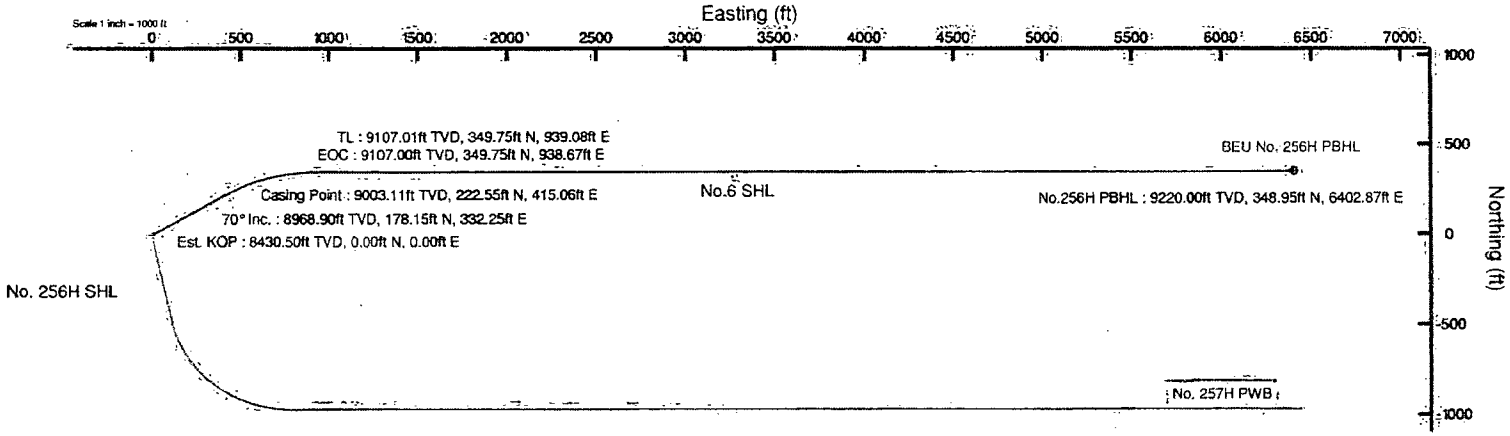
Location: Eddy County, NM
Field: Big Eddy
Facility: Big Eddy Unit No.256H & No.257H

Slot: No. 256H SHL
Well: No. 256H
Wellbore: No. 256H PWB

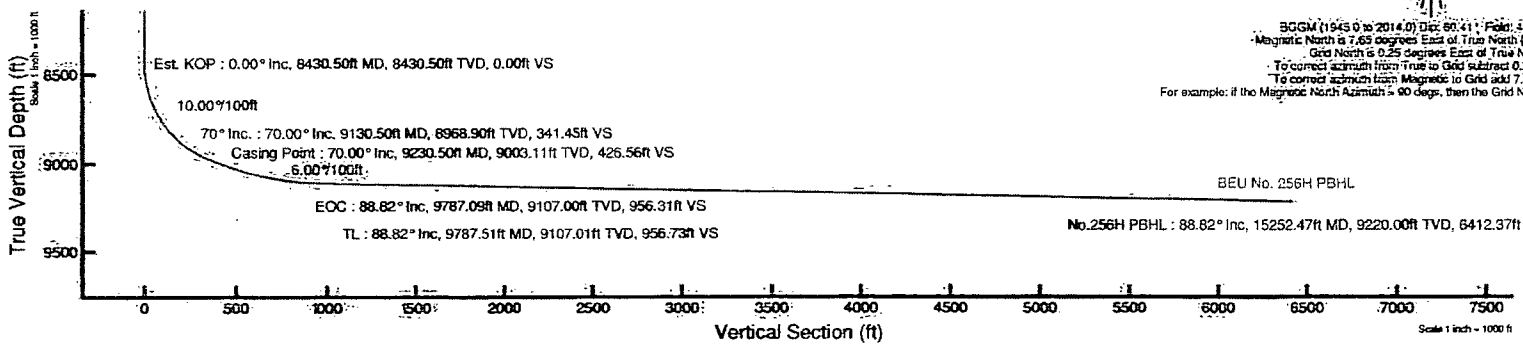
BAKER HUGHES

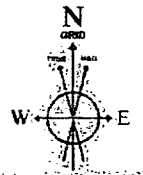
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	30.00	0.000	61.800	30.00	0.00	0.00	0.00	0.00
Est. KOP	8430.50	0.000	61.800	8430.50	0.00	0.00	0.00	0.00
70° Inc.	9130.50	70.000	61.800	8968.90	178.15	332.25	10.00	341.45
Casing Point	9230.50	70.000	61.800	9003.11	222.55	415.06	0.00	426.56
EOC	9787.09	88.815	90.000	9107.00	349.75	938.67	6.00	956.31
TL	9787.51	88.815	90.008	9107.01	349.75	939.08	2.00	956.73
No.256H PBHL	15252.47	88.815	90.008	9220.00	348.95	6402.87	0.00	6412.37



Plot reference wellpath is Rev-C.0	
True vertical depths are referenced to Rig on No. 256H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 256H SHL (KB)	North Reference: Grid north
Rig on No. 256H SHL (KB) to Mean Sea Level: 3486 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No. 256H SHL): -3456 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gentry on 06/11/2013





BGGM (1945.0 to 2014.0) Dec: 8041 ° Field: 48823.2 nT
Magnetic North is 7.65 degrees East of True North (at 03/04/2013)
Grid North is 0.25 degrees East of True North
To correct azimuth from True to Grid subtract 0.25 degrees
To correct azimuth from Magnetic to Grid add 7.40 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.40 = 97.40

Rev-C.0

Planned Wellpath Report

Rev-C.0

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, L.P.**	Slot	**No. 256H SHL**
Area	**Eddy County, NM**	Well	**No. 256H**
Field	**Big Eddy**	Wellbore	**No. 256H PWB**
Facility	**Big Eddy Unit No.256H & No.257H**		

REPORT SETUP INFORMATION			
Projection System	**NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 3.0.0**
North Reference	**Grid**	User	**Gentbry**
Scale	**0.999932**	Report Generated	**06/11/2013 at 9:39:52 AM**
Convergence at slot	**0.25° East**	Database/Source file	**WA Midland/No._256H_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**	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W
Facility Reference Pt			**641547.87**	**587432.84**	32°36'50.817"N	103°52'25.073"W
Field Reference Pt			**610823.03**	**524402.80**	32°26'28.262"N	103°58'26.774"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on No. 256H SHL (KB) to Facility Vertical Datum	**30.00ft**
Horizontal Reference Pt	**Slot**	Rig on No. 256H SHL (KB) to Mean Sea Level	**3486.00ft**
Vertical Reference Pt	**Rig on No. 256H SHL (KB)**	Rig on No. 256H SHL (KB) to Mud Line at Slot (No. 256H SHL)	**30.00ft**
MD Reference Pt	**Rig on No. 256H SHL (KB)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**86.88°**

Planned Wellpath Report

Rev-C.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 256H SHL
Area	Eddy County, NM	Well	No. 256H
Field	Big Eddy	Wellbore	No. 256H PWB
Facility	Big Eddy Unit No.256H & No.257H		

WELLPATH DATA (170 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	61.800	0.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
30.00	0.000	61.800	30.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	Tie On
130.00†	0.000	61.800	130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
230.00†	0.000	61.800	230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
330.00†	0.000	61.800	330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
430.00†	0.000	61.800	430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
530.00†	0.000	61.800	530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
630.00†	0.000	61.800	630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
730.00†	0.000	61.800	730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
830.00†	0.000	61.800	830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
885.00†	0.000	61.800	885.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	T/Rustler, Anhydrite
930.00†	0.000	61.800	930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1025.00†	0.000	61.800	1025.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	T/Salt
1030.00†	0.000	61.800	1030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1130.00†	0.000	61.800	1130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1230.00†	0.000	61.800	1230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1330.00†	0.000	61.800	1330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1430.00†	0.000	61.800	1430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1530.00†	0.000	61.800	1530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1630.00†	0.000	61.800	1630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1730.00†	0.000	61.800	1730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1830.00†	0.000	61.800	1830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
1930.00†	0.000	61.800	1930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2030.00†	0.000	61.800	2030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2130.00†	0.000	61.800	2130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2230.00†	0.000	61.800	2230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2310.00†	0.000	61.800	2310.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	B/Salt
2330.00†	0.000	61.800	2330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2430.00†	0.000	61.800	2430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2485.00†	0.000	61.800	2485.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	T/Yates
2530.00†	0.000	61.800	2530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2630.00†	0.000	61.800	2630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2685.00†	0.000	61.800	2685.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	T/Reef
2730.00†	0.000	61.800	2730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2830.00†	0.000	61.800	2830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
2930.00†	0.000	61.800	2930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3030.00†	0.000	61.800	3030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3130.00†	0.000	61.800	3130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3230.00†	0.000	61.800	3230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3330.00†	0.000	61.800	3330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3430.00†	0.000	61.800	3430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3530.00†	0.000	61.800	3530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3630.00†	0.000	61.800	3630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3730.00†	0.000	61.800	3730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
3830.00†	0.000	61.800	3830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	

Planned Wellpath Report

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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 256H SHL
Area	Eddy County, NM	Well	No. 256H
Field	Big Eddy	Wellbore	No. 256H PWB
Facility	Big Eddy Unit No.256H & No.257H		

WELLPATH DATA (170 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
3930.00†	0.000	61.800	3930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4030.00†	0.000	61.800	4030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4130.00†	0.000	61.800	4130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4135.00†	0.000	61.800	4135.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	T/Delaware Mnt. Group
4230.00†	0.000	61.800	4230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4330.00†	0.000	61.800	4330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4430.00†	0.000	61.800	4430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4530.00†	0.000	61.800	4530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4630.00†	0.000	61.800	4630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4730.00†	0.000	61.800	4730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4830.00†	0.000	61.800	4830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
4930.00†	0.000	61.800	4930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5030.00†	0.000	61.800	5030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5130.00†	0.000	61.800	5130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5230.00†	0.000	61.800	5230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5330.00†	0.000	61.800	5330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5430.00†	0.000	61.800	5430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5530.00†	0.000	61.800	5530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5630.00†	0.000	61.800	5630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5730.00†	0.000	61.800	5730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5830.00†	0.000	61.800	5830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
5930.00†	0.000	61.800	5930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6030.00†	0.000	61.800	6030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6130.00†	0.000	61.800	6130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6230.00†	0.000	61.800	6230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6330.00†	0.000	61.800	6330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6430.00†	0.000	61.800	6430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6530.00†	0.000	61.800	6530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6630.00†	0.000	61.800	6630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6730.00†	0.000	61.800	6730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6830.00†	0.000	61.800	6830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
6930.00†	0.000	61.800	6930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	Bone Spring
7030.00†	0.000	61.800	7030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7130.00†	0.000	61.800	7130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7230.00†	0.000	61.800	7230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7330.00†	0.000	61.800	7330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7430.00†	0.000	61.800	7430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7530.00†	0.000	61.800	7530.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7630.00†	0.000	61.800	7630.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7730.00†	0.000	61.800	7730.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7830.00†	0.000	61.800	7830.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
7930.00†	0.000	61.800	7930.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
8030.00†	0.000	61.800	8030.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
8130.00†	0.000	61.800	8130.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
8230.00†	0.000	61.800	8230.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	

Planned Wellpath Report

Rev-C.0

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 256H SHL
Area	Eddy County, NM	Well	No. 256H
Field	Big Eddy	Wellbore	No. 256H PWB
Facility	Big Eddy Unit No.256H & No.257H		

WELLPATH DATA (170 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
8245.00†	0.000	61.800	8245.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	1st Bone Spring Sand
8330.00†	0.000	61.800	8330.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
8430.00†	0.000	61.800	8430.00	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	
8430.50	0.000	61.800	8430.50	0.00	0.00	0.00	641547.87	587432.84	32°36'50.817"N	103°52'25.073"W	0.00	Est. KOP
8530.00†	9.950	61.800	8529.50	7.81	4.07	7.59	641555.46	587436.91	32°36'50.857"N	103°52'24.984"W	10.00	
8630.00†	19.950	61.800	8625.99	31.14	16.25	30.30	641578.17	587449.09	32°36'50.976"N	103°52'24.718"W	10.00	
8730.00†	29.950	61.800	8716.55	69.30	36.16	67.43	641615.30	587468.99	32°36'51.172"N	103°52'24.283"W	10.00	
8830.00†	39.950	61.800	8798.41	121.12	63.19	117.85	641665.71	587496.03	32°36'51.437"N	103°52'23.692"W	10.00	
8930.00†	49.950	61.800	8869.09	185.02	96.53	180.04	641727.89	587529.37	32°36'51.764"N	103°52'22.963"W	10.00	
9030.00†	59.950	61.800	8926.45	259.08	135.17	252.09	641799.95	587568.00	32°36'52.143"N	103°52'22.119"W	10.00	
9130.00†	69.950	61.800	8968.73	341.02	177.93	331.83	641879.68	587610.75	32°36'52.563"N	103°52'21.184"W	10.00	
9130.50	70.000	61.800	8968.90	341.45	178.15	332.25	641880.09	587610.98	32°36'52.565"N	103°52'21.180"W	10.00	70° Inc.
9148.32†	70.000	61.800	8975.00	356.62	186.06	347.01	641894.85	587618.89	32°36'52.643"N	103°52'21.007"W	0.00	2nd Bone Spring A Sand
9230.00†	70.000	61.800	9002.94	426.13	222.33	414.65	641962.49	587655.16	32°36'52.999"N	103°52'20.214"W	0.00	
9230.50	70.000	61.800	9003.11	426.56	222.55	415.06	641962.90	587655.38	32°36'53.001"N	103°52'20.209"W	0.00	Casing Point
9236.06†	70.171	62.104	9005.00	431.30	225.01	419.68	641967.52	587657.84	32°36'53.025"N	103°52'20.155"W	6.00	2nd Bone Spring A Sand
9330.00†	73.135	67.152	9034.58	513.79	263.17	500.21	642048.05	587695.99	32°36'53.399"N	103°52'19.212"W	6.00	
9430.00†	76.422	72.352	9060.85	605.97	296.51	590.71	642138.54	587729.33	32°36'53.725"N	103°52'18.152"W	6.00	
9530.00†	79.813	77.408	9081.45	701.64	322.00	685.14	642232.96	587754.82	32°36'53.973"N	103°52'17.047"W	6.00	
9538.89†	80.118	77.851	9083.00	710.28	323.87	693.68	642241.51	587756.69	32°36'53.992"N	103°52'16.947"W	6.00	2nd Bone Spring B Sand
9630.00†	83.280	82.355	9096.16	799.78	339.35	782.47	642330.28	587772.17	32°36'54.141"N	103°52'15.908"W	6.00	
9730.00†	86.796	87.233	9104.81	899.29	348.37	881.64	642429.45	587781.19	32°36'54.226"N	103°52'14.748"W	6.00	
9787.09	88.815	90.000	9107.00	956.31	349.75	938.67	642486.47	587782.57	32°36'54.237"N	103°52'14.081"W	6.00	EOC
9787.51	88.815	90.008	9107.01	956.73	349.75	939.08	642486.89	587782.57	32°36'54.237"N	103°52'14.076"W	2.00	TL
9830.00†	88.815	90.008	9107.89	999.14	349.74	981.56	642529.36	587782.56	32°36'54.235"N	103°52'13.580"W	0.00	
9930.00†	88.815	90.008	9109.95	1098.97	349.73	1081.54	642629.34	587782.55	32°36'54.231"N	103°52'12.411"W	0.00	
10030.00†	88.815	90.008	9112.02	1198.80	349.72	1181.52	642729.31	587782.53	32°36'54.226"N	103°52'11.242"W	0.00	
10130.00†	88.815	90.008	9114.09	1298.63	349.70	1281.50	642829.28	587782.52	32°36'54.222"N	103°52'10.073"W	0.00	
10230.00†	88.815	90.008	9116.16	1398.46	349.69	1381.48	642929.25	587782.50	32°36'54.217"N	103°52'08.905"W	0.00	
10330.00†	88.815	90.008	9118.22	1498.29	349.67	1481.46	643029.22	587782.49	32°36'54.213"N	103°52'07.736"W	0.00	
10430.00†	88.815	90.008	9120.29	1598.12	349.66	1581.43	643129.19	587782.47	32°36'54.208"N	103°52'06.567"W	0.00	
10530.00†	88.815	90.008	9122.36	1697.95	349.64	1681.41	643229.17	587782.46	32°36'54.204"N	103°52'05.398"W	0.00	
10630.00†	88.815	90.008	9124.43	1797.78	349.63	1781.39	643329.14	587782.44	32°36'54.199"N	103°52'04.229"W	0.00	
10730.00†	88.815	90.008	9126.50	1897.61	349.61	1881.37	643429.11	587782.43	32°36'54.195"N	103°52'03.061"W	0.00	
10830.00†	88.815	90.008	9128.56	1997.44	349.60	1981.35	643529.08	587782.41	32°36'54.190"N	103°52'01.892"W	0.00	
10930.00†	88.815	90.008	9130.63	2097.27	349.58	2081.33	643629.05	587782.40	32°36'54.186"N	103°52'00.723"W	0.00	
11030.00†	88.815	90.008	9132.70	2197.10	349.57	2181.31	643729.02	587782.38	32°36'54.182"N	103°51'59.554"W	0.00	
11130.00†	88.815	90.008	9134.77	2296.93	349.55	2281.28	643829.00	587782.37	32°36'54.177"N	103°51'58.385"W	0.00	
11230.00†	88.815	90.008	9136.83	2396.76	349.54	2381.26	643928.97	587782.36	32°36'54.173"N	103°51'57.217"W	0.00	
11330.00†	88.815	90.008	9138.90	2496.59	349.53	2481.24	644028.94	587782.34	32°36'54.168"N	103°51'56.048"W	0.00	
11430.00†	88.815	90.008	9140.97	2596.42	349.51	2581.22	644128.91	587782.33	32°36'54.164"N	103°51'54.879"W	0.00	
11530.00†	88.815	90.008	9143.04	2696.25	349.50	2681.20	644228.88	587782.31	32°36'54.159"N	103°51'53.710"W	0.00	
11630.00†	88.815	90.008	9145.10	2796.07	349.48	2781.18	644328.85	587782.30	32°36'54.155"N	103°51'52.541"W	0.00	
11730.00†	88.815	90.008	9147.17	2895.90	349.47	2881.16	644428.82	587782.28	32°36'54.150"N	103°51'51.372"W	0.00	
11830.00†	88.815	90.008	9149.24	2995.73	349.45	2981.14	644528.80	587782.27	32°36'54.146"N	103°51'50.204"W	0.00	

Planned Wellpath Report

Rev-C.0

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 256H SHL
Area	Eddy County, NM	Well	No. 256H
Field	Big Eddy	Wellbore	No. 256H PWB
Facility	Big Eddy Unit No.256H & No.257H		

WELLPATH DATA (170 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
11930.00†	88.815	90.008	9151.31	3095.56	349.44	3081.11	644628.77	587782.25	32°36'54.141"N	103°51'49.035"W	0.00	
12030.00†	88.815	90.008	9153.37	3195.39	349.42	3181.09	644728.74	587782.24	32°36'54.136"N	103°51'47.866"W	0.00	
12130.00†	88.815	90.008	9155.44	3295.22	349.41	3281.07	644828.71	587782.22	32°36'54.132"N	103°51'46.697"W	0.00	
12230.00†	88.815	90.008	9157.51	3395.05	349.39	3381.05	644928.68	587782.21	32°36'54.127"N	103°51'45.528"W	0.00	
12330.00†	88.815	90.008	9159.58	3494.88	349.38	3481.03	645028.65	587782.19	32°36'54.123"N	103°51'44.360"W	0.00	
12430.00†	88.815	90.008	9161.64	3594.71	349.36	3581.01	645128.63	587782.18	32°36'54.118"N	103°51'43.191"W	0.00	
12530.00†	88.815	90.008	9163.71	3694.54	349.35	3680.99	645228.60	587782.17	32°36'54.114"N	103°51'42.022"W	0.00	
12630.00†	88.815	90.008	9165.78	3794.37	349.34	3780.96	645328.57	587782.15	32°36'54.109"N	103°51'40.853"W	0.00	
12730.00†	88.815	90.008	9167.85	3894.20	349.32	3880.94	645428.54	587782.14	32°36'54.105"N	103°51'39.684"W	0.00	
12830.00†	88.815	90.008	9169.91	3994.03	349.31	3980.92	645528.51	587782.12	32°36'54.100"N	103°51'38.516"W	0.00	
12930.00†	88.815	90.008	9171.98	4093.86	349.29	4080.90	645628.48	587782.11	32°36'54.096"N	103°51'37.347"W	0.00	
13030.00†	88.815	90.008	9174.05	4193.69	349.28	4180.88	645728.46	587782.09	32°36'54.091"N	103°51'36.178"W	0.00	
13130.00†	88.815	90.008	9176.12	4293.52	349.26	4280.86	645828.43	587782.08	32°36'54.087"N	103°51'35.009"W	0.00	
13230.00†	88.815	90.008	9178.18	4393.35	349.25	4380.84	645928.40	587782.06	32°36'54.082"N	103°51'33.840"W	0.00	
13330.00†	88.815	90.008	9180.25	4493.18	349.23	4480.81	646028.37	587782.05	32°36'54.077"N	103°51'32.672"W	0.00	
13430.00†	88.815	90.008	9182.32	4593.01	349.22	4580.79	646128.34	587782.03	32°36'54.073"N	103°51'31.503"W	0.00	
13530.00†	88.815	90.008	9184.39	4692.84	349.20	4680.77	646228.31	587782.02	32°36'54.068"N	103°51'30.334"W	0.00	
13630.00†	88.815	90.008	9186.45	4792.67	349.19	4780.75	646328.29	587782.01	32°36'54.064"N	103°51'29.165"W	0.00	
13730.00†	88.815	90.008	9188.52	4892.50	349.17	4880.73	646428.26	587781.99	32°36'54.059"N	103°51'27.996"W	0.00	
13830.00†	88.815	90.008	9190.59	4992.33	349.16	4980.71	646528.23	587781.98	32°36'54.055"N	103°51'26.828"W	0.00	
13930.00†	88.815	90.008	9192.66	5092.16	349.15	5080.69	646628.20	587781.96	32°36'54.050"N	103°51'25.659"W	0.00	
14030.00†	88.815	90.008	9194.72	5191.99	349.13	5180.66	646728.17	587781.95	32°36'54.045"N	103°51'24.490"W	0.00	
14130.00†	88.815	90.008	9196.79	5291.82	349.12	5280.64	646828.14	587781.93	32°36'54.041"N	103°51'23.321"W	0.00	
14230.00†	88.815	90.008	9198.86	5391.65	349.10	5380.62	646928.12	587781.92	32°36'54.036"N	103°51'22.152"W	0.00	
14330.00†	88.815	90.008	9200.93	5491.48	349.09	5480.60	647028.09	587781.90	32°36'54.032"N	103°51'20.983"W	0.00	
14430.00†	88.815	90.008	9202.99	5591.31	349.07	5580.58	647128.06	587781.89	32°36'54.027"N	103°51'19.815"W	0.00	
14530.00†	88.815	90.008	9205.06	5691.14	349.06	5680.56	647228.03	587781.87	32°36'54.023"N	103°51'18.646"W	0.00	
14630.00†	88.815	90.008	9207.13	5790.97	349.04	5780.54	647328.00	587781.86	32°36'54.018"N	103°51'17.477"W	0.00	
14730.00†	88.815	90.008	9209.20	5890.80	349.03	5880.52	647427.97	587781.84	32°36'54.013"N	103°51'16.308"W	0.00	
14830.00†	88.815	90.008	9211.27	5990.62	349.01	5980.49	647527.95	587781.83	32°36'54.009"N	103°51'15.139"W	0.00	
14930.00†	88.815	90.008	9213.33	6090.45	349.00	6080.47	647627.92	587781.82	32°36'54.004"N	103°51'13.971"W	0.00	
15030.00†	88.815	90.008	9215.40	6190.28	348.98	6180.45	647727.89	587781.80	32°36'54.000"N	103°51'12.802"W	0.00	
15130.00†	88.815	90.008	9217.47	6290.11	348.97	6280.43	647827.86	587781.79	32°36'53.995"N	103°51'11.633"W	0.00	
15230.00†	88.815	90.008	9219.54	6389.94	348.96	6380.41	647927.83	587781.77	32°36'53.990"N	103°51'10.464"W	0.00	
15252.47	88.815	90.008	9220.00†	6412.37	348.95	6402.87	647950.29	587781.77	32°36'53.989"N	103°51'10.202"W	0.00	No.256H PBHL

Planned Wellpath Report

Rev-C.0

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, L.P.**	Slot	**No. 256H SHL**
Area	**Eddy County, NM**	Well	**No. 256H**
Field	**Big Eddy**	Wellbore	**No. 256H PWB**
Facility	**Big Eddy Unit No.256H & No.257H**		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) BEU No. 256H PBHL	15252.47	9220.00	348.95	6402.87	647950.29	587781.77	32° 36' 53.989" N	103° 51' 10.202" W	point

SURVEY PROGRAM - Ref Wellbore: No. 256H PWB Ref Wellpath: Rev-C.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	15252.47	NaviTrak (Standard)		No. 256H PWB

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BOPCO, LP
LEASE NO.:	NM02447
WELL NAME & NO.:	256H-BIG EDDY UNIT
SURFACE HOLE FOOTAGE:	1670' FSL & 2630' FEL
BOTTOM HOLE FOOTAGE	1980' FSL & 1505' FEL
LOCATION:	Section 33, T. 19 S., R 31 E., NMPM
COUNTY:	Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is encountered in quantities greater than 10 PPM the well shall be shut in and H2S equipment shall be installed and flare line must be extended pursuant to Onshore Oil and Gas Order #6. After detection, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items.**

2. Approved for drilling/skidding operation in conjunction with the Big Eddy Unit 257.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies.**

copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Secretary's Potash
Possible lost circulation in the Artesia Group and the Capitan Reef.
Possible water flows in the Salado and Artesia Groups.

1. The **16** inch surface casing shall be set at approximately **1000** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **Additional cement may be required – excess calculates to 10%.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing is: **(Casing is to be set above the Capitan Reef at approximately 2635')**

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

3. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is: **(Casing is to be set in the base of the Capitan Reef at approximately 4300')**

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

b. Second stage above first DV tool, cement shall

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash and Capitan Reef. Additional cement may be required – excess calculates to 23%.**

Pilot hole is required to have a plug at the bottom of the hole. If two plugs are set, the BLM is to be contacted (575-361-2822) prior to tag of bottom plug, which must be a minimum of 200' in length. Operator can set one plug from bottom of pilot hole to kick-off point and save the WOC time for tagging the first plug.

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

c. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

d. Second stage above first DV tool, cement shall:

☒ Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 2700'). Operator shall provide method of verification.

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

   ☒ Cement not required – Packer/Port system to be used.

6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review**. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

   a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** inch 1st intermediate casing shoe shall be **3000 (3M)** psi.

5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch 2nd intermediate casing shoe shall be **3000 (3M)** psi.

6. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 7 inch casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7 inch casing shoe shall be 3000 (3M) psi.**

a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
c. **Manufacturer representative shall install the test plug for the initial BOP test.**
d. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

7. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

   c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.

   d. The results of the test shall be reported to the appropriate BLM office.

   e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

   f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

CRW 062313