Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION
ARTESIA DISTRICT
OCD Artesia
AUG 28 2014
RECEIVED

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.
NMLC068408

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
891000326X

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

8. Well Name and No.
BIG EDDY UNIT DI4 270H

2. Name of Operator
BOPCO LP
Contact: LESLIE BARNES
E-Mail: lbarnes@basspet.com

9. API Well No.
30-015-42479-00-X1

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

3b. Phone No. (include area code)
Ph: 432-221-7341

10. Field and Pool, or Exploratory
WILLIAMS SINK

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 5 T20S R31E Lot 2 0700FNL 2220FEL
32.362717 N Lat, 103.531527 W Lon

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 to Original APD
	☐ 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.)

BEU DI4 #270H
Production Casing Sundry

will need additional cement on 2nd Stage DV tool excess (- 49%)

BOPCO, LP respectfully requests to alter the planned directional plan and the 5-1/2?, 17 ppf, HCP-110, BTC production casing string. A 4-1/2?, 11.60 ppf, HCP-110, BTC by 7?, 26 ppf, HCP-110, BTC tapered string will be will be ran from TD of the well to surface. A DV tool will be placed at approximately 5,000? and the 4-1/2? by 7? casing string will be cemented in two stages. Top of cement of stage 2 will be placed at least 50? above the top of the Capitan Reef at 2,754?. The updated directional plan is attached. Casing safety factors are as follows:

Accepted for record
NMOCD JES 8/28/14

4-1/2?, 11.60 ppf, HCP-110, BTC - Collapse ? 1.83, Burst ? 2.12, Tension ? 4.05

Original COAs plus Sundry COAs Ec# 254676 5 stl (5 stand.

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

Electronic Submission #257732 verified by the BLM Well Information System
For BOPCO LP, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER MASON on 08/22/2014 (14JAM0391SE)

Name *(Printed/Typed)* JEREMY BRADEN — Title ENGINEERING ASSISTANT

Signature (Electronic Submission) — Date 08/20/2014

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date AUG 22 2014

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 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 ****

Additional data for EC transaction #257732 that would not fit on the form

32. Additional remarks, continued

7?, 26 ppf, HCP-110, BTC ? Collapse ? 1.69, Burst ? 2.06, Tension ? 3.57

Updated cement volumes and slurries are in the attached table.

Mason, Jennifer <jamason@blm.gov>

FW: EC Document Submitted Big Eddy Unit DI4 270H

Braden, Jeremy D. <JDBraden@basspet.com> Fri, Aug 22, 2014 at 11:41 AM
To: "Mason, Jennifer" <jamason@blm.gov>

Casing Type	Interval
7", 26 ppf, HCP-110, BTC	0' – 8,825' (+/-)
4-1/2", 11.60 ppf, HCP-110, BTC	8,825' – 14,736' (+/-)

The crossover will be placed +/- 50' back from the end of the 200'-70° tangent. If you have any further questions, please let me know.

Jeremy Braden

BOPCO L.P.

Drilling Engineer

432-683-2277 (office)

432-312-1113 (cell)

432-221-7343 (direct)

From: Mason, Jennifer [mailto:jamason@blm.gov]
Sent: Friday, August 22, 2014 12:12 PM
To: Barnes, Leslie
Cc: Braden, Jeremy D.
Subject: Re: FW: EC Document Submitted Big Eddy Unit DI4 270H

[Quoted text hidden]

BEU DI4 #270H
Production Casing Sundry

BOPCO, LP respectfully requests to alter the planned directional plan and the 5-1/2", 17 ppf, HCP-110, BTC production casing string. A 4-1/2", 11.60 ppf, HCP-110, BTC by 7", 26 ppf, HCP-110, BTC tapered string will be will be ran from TD of the well to surface. A DV tool will be placed at approximately 5,000' and the 4-1/2" by 7" casing string will be cemented in two stages. Top of cement of stage 2 will be placed at least 50' above the top of the Capitan Reef at 2,754'. The updated directional plan is attached. Casing safety factors are as follows:

4-1/2", 11.60 ppf, HCP-110, BTC - Collapse – 1.83, Burst – 2.12, Tension – 4.05

7", 26 ppf, HCP-110, BTC – Collapse – 1.69, Burst – 2.06, Tension – 3.57

Updated cement volumes and slurries are in the below table.

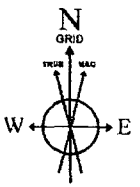
INTERVAL	AMOUNT SXS	FT of FILL	TYPE	GAL/SX	PPG	FT3/SX
PRODUCTION						
Stage 1						
Lead: 5,000'-7,875'	200	3,409	VersaCem + 10% Bentonite + 0.125 pps Poly-E-Flake + 0.5 pps D-Air + 0.1% HR-601	12.8	11.9	2.24
Tail:7,875'-14,736'	2440	6,861	VersaCem + 0.5% LAP-1 + 0.3% CFR-3 + 0.1% FWCA + 0.125 pps Poly-E-Flake + 0.5 pps D-Air + 0.2% HR-601	5.32	14.5	1.21
DV TOOL AT 5,000'						
Stage 2						
Lead: 2,754'-4,500'	290	1,746	VersaCem + 10% Bentonite + 0.125 pps Poly-E-Flake + 0.5 pps D-Air	12.67	11.9	2.23
Tail: 4,500'-5,000'	100	500	Halcem "C" Neat	6.34	14.8	1.33

BOPCO, LP

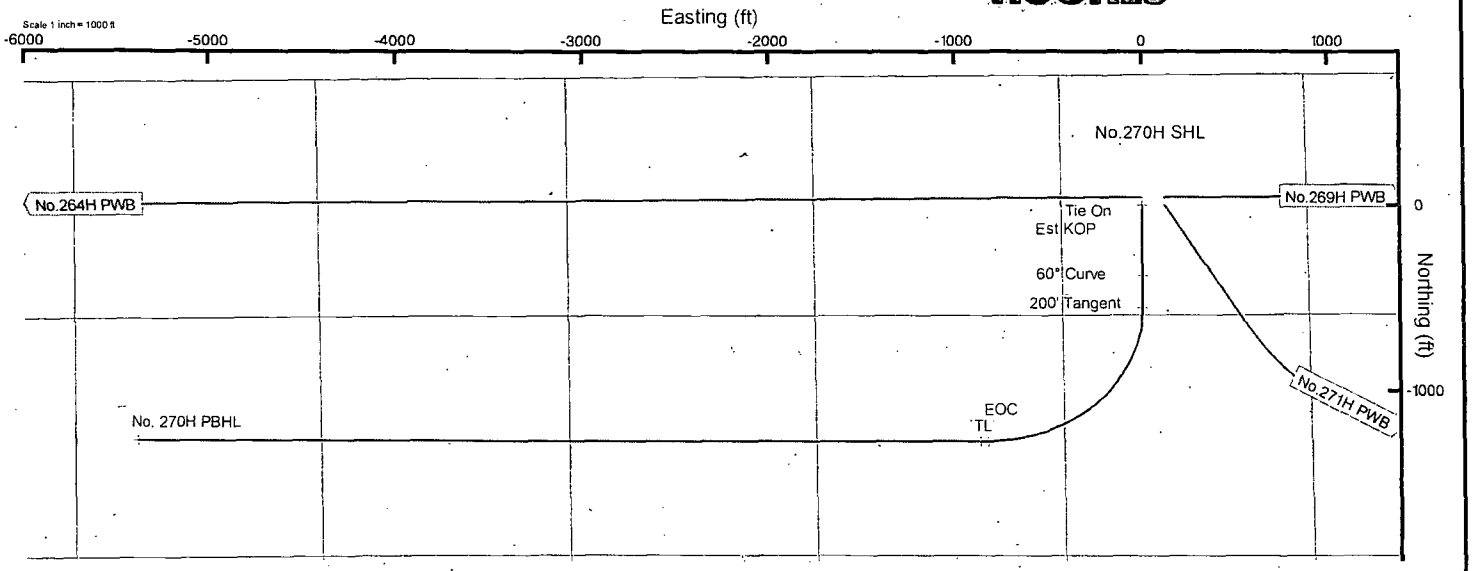
Location: Eddy County, NM
Field: Big Eddy
Facility: Big Eddy Unit DI-4

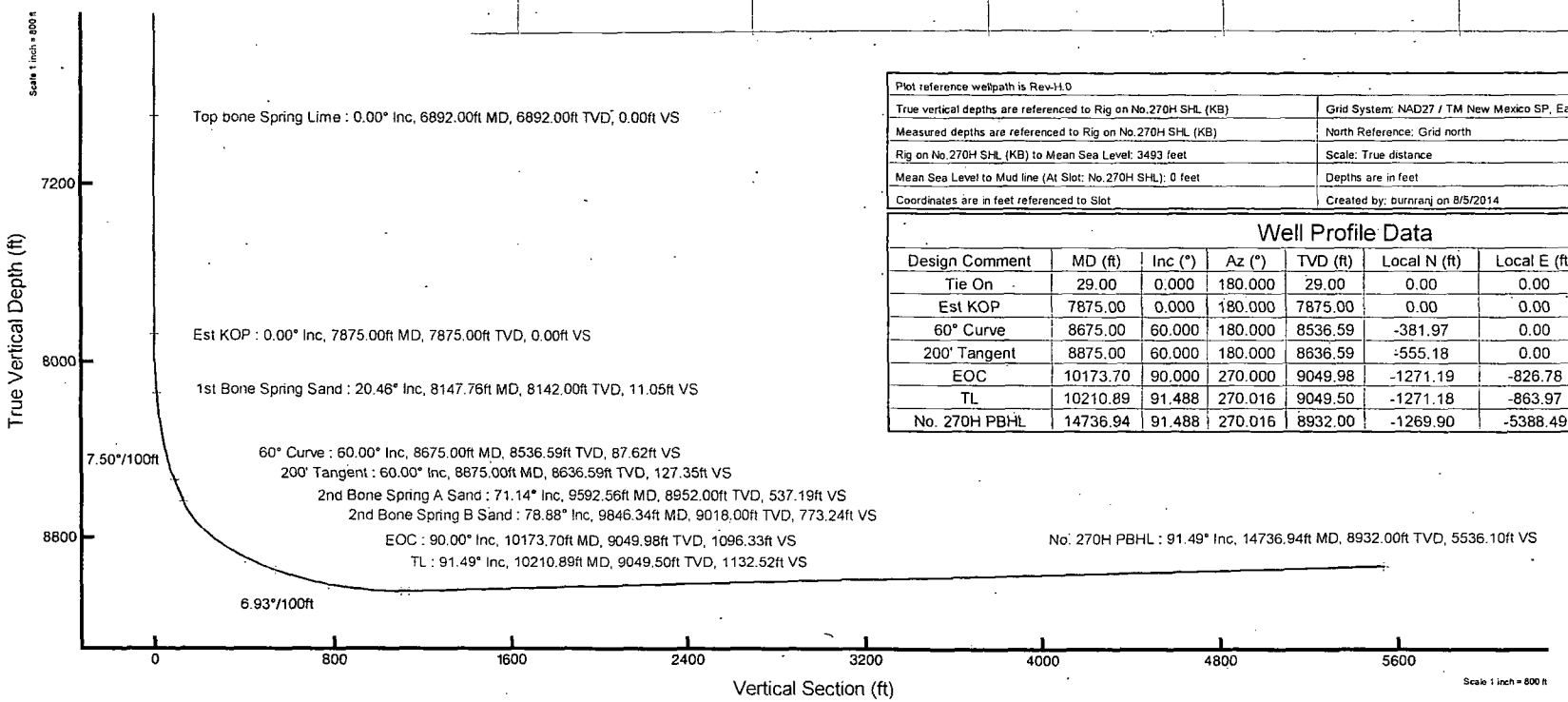
Slot: No.270H SHL
Well: No.270H
Wellbore: No.270H PWB

BAKER HUGHES



BGGM (1945.0 to 2016.0) Dip: 60.40° Field: 48464.5 nT
Magnetic North is 7.55 degrees East of True North (at 7/18/2014)
Grid North is 0.24 degrees East of True North
To correct azimuth from True to Grid subtract 0.24 degrees
To correct azimuth from Magnetic to Grid add 7.31 degrees





Azimuth 256.74° with reference 0.00 N, 0.00 E

Plot reference wellpath is Rev-H.0	
True vertical depths are referenced to Rig on No.270H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.270H SHL (KB)	North Reference: Grid north
Rig on No.270H SHL (KB) to Mean Sea Level: 3493 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.270H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: burnranj on 8/5/2014

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	29.00	0.000	180.000	29.00	0.00	0.00	0.00	0.00
Est KOP	7875.00	0.000	180.000	7875.00	0.00	0.00	0.00	0.00
60° Curve	8675.00	60.000	180.000	8536.59	-381.97	0.00	7.50	87.62
200' Tangent	8875.00	60.000	180.000	8636.59	-555.18	0.00	0.00	127.35
EOC	10173.70	90.000	270.000	9049.98	-1271.19	-826.78	6.93	1096.33
TL	10210.89	91.488	270.016	9049.50	-1271.18	-863.97	4.00	1132.52
No. 270H PBHL	14736.94	91.488	270.016	8932.00	-1269.90	-5388.49	0.00	5536.10

Rev - H.0

Planned Wellpath Report

Rev-H.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, LP**	Slot	**No.270H SHL**
Area	**Eddy County, NM**	Well	**No.270H**
Field	**Big Eddy**	Wellbore	**No.270H PWB**
Facility	**Big Eddy Unit DI-4**		

REPORT SETUP INFORMATION			
Projection System	**NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 4.0.0**
North Reference	**Grid**	User	**Burnranj**
Scale	**0.99993**	Report Generated	**8/5/2014 at 2:07:49 PM**
Convergence at slot	**0.24° East**	Database/Source file	**WA_MIDLAND/C:\Users\burnranj\AppData\Roaming\Well Explorer\temp\BOPCO, LP No.270H SHL (Rev-H.0).xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[US ft]**	**Northing[US ft]**	**Latitude**	**Longitude**
Slot Location	-47.40	-616.54	**636647.40**	**585027.70**	32°36'27.223"N	103°53'22.483"W
Facility Reference Pt			**637263.90**	**585075.10**	32°36'27.666"N	103°53'15.274"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.270H SHL (KB) to Facility Vertical Datum	**3493.00ft**
Horizontal Reference Pt	**Slot**	Rig on No.270H SHL (KB) to Mean Sea Level	**3493.00ft**
Vertical Reference Pt	**Rig on No.270H SHL (KB)**	Rig on No.270H SHL (KB) to Mud Line at Slot (No.270H SHL)	**3493.00ft**
MD Reference Pt	**Rig on No.270H SHL (KB)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**256.74°**

Planned Wellpath Report

Rev-H.0

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, LP**	Slot	**No.270H SHL**
Area	**Eddy County, NM**	Well	**No.270H**
Field	**Big Eddy**	Wellbore	**No.270H PWB**
Facility	**Big Eddy Unit DI-4**		

WELLPATH DATA (88 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	180.000	0.00	0.00	0.00	0.00	0.00	
29.00	0.000	180.000	29.00	0.00	0.00	0.00	0.00	Tie On
581.00†	0.000	180.000	581.00	0.00	0.00	0.00	0.00	Top Rustler Anhydrite
844.00†	0.000	180.000	844.00	0.00	0.00	0.00	0.00	Top Salt
2323.00†	0.000	180.000	2323.00	0.00	0.00	0.00	0.00	Base Salt
2892.00†	0.000	180.000	2892.00	0.00	0.00	0.00	0.00	Top of Reef
4082.00†	0.000	180.000	4082.00	0.00	0.00	0.00	0.00	T/Delaware Mnt. Group
6892.00†	0.000	180.000	6892.00	0.00	0.00	0.00	0.00	Top bone Spring Lime
7875.00	0.000	180.000	7875.00	0.00	0.00	0.00	0.00	Est KOP
7900.00†	1.875	180.000	7900.00	0.09	-0.41	0.00	7.50	
8000.00†	9.375	180.000	7999.44	2.34	-10.20	0.00	7.50	
8100.00†	16.875	180.000	8096.76	7.55	-32.90	0.00	7.50	
8147.76†	20.457	180.000	8142.00	11.05	-48.18	0.00	7.50	1st Bone Spring Sand
8200.00†	24.375	180.000	8190.28	15.62	-68.10	0.00	7.50	
8300.00†	31.875	180.000	8278.41	26.43	-115.20	0.00	7.50	
8400.00†	39.375	180.000	8359.64	39.78	-173.41	0.00	7.50	
8500.00†	46.875	180.000	8432.58	55.45	-241.72	0.00	7.50	
8600.00†	54.375	180.000	8495.97	73.17	-318.96	0.00	7.50	
8675.00	60.000	180.000	8536.59	87.62	-381.97	0.00	7.50	60° Curve
8700.00†	60.000	180.000	8549.09	92.59	-403.62	0.00	0.00	
8800.00†	60.000	180.000	8599.09	112.45	-490.23	0.00	0.00	
8875.00	60.000	180.000	8636.59	127.35	-555.18	0.00	0.00	200' Tangent
8900.00†	60.015	182.000	8649.09	132.68	-576.82	-0.38	6.93	
9000.00†	60.377	189.977	8698.86	161.27	-663.02	-9.43	6.93	
9100.00†	61.210	197.861	8747.70	201.15	-747.64	-30.43	6.93	
9200.00†	62.493	205.586	8794.94	251.64	-829.44	-63.06	6.93	
9300.00†	64.190	213.106	8839.86	312.11	-907.24	-106.85	6.93	
9400.00†	66.263	220.390	8881.81	381.64	-979.90	-161.16	6.93	
9500.00†	68.666	227.429	8920.17	459.21	-1046.34	-225.20	6.93	
9592.56†	71.143	233.731	8952.00	537.19	-1101.47	-292.32	6.93	2nd Bone Spring A Sand
9600.00†	71.351	234.229	8954.39	543.69	-1105.62	-298.02	6.93	
9700.00†	74.273	240.808	8983.97	633.84	-1156.85	-378.57	6.93	
9800.00†	77.386	247.195	9008.47	728.35	-1199.28	-465.67	6.93	
9846.34†	78.881	250.098	9018.00	773.24	-1215.79	-507.90	6.93	2nd Bone Spring B Sand
9900.00†	80.647	253.425	9027.54	825.84	-1232.31	-558.05	6.93	
10000.00†	84.015	259.537	9040.89	924.89	-1255.44	-654.35	6.93	
10100.00†	87.449	265.574	9048.34	1024.03	-1268.35	-753.18	6.93	
10173.70	90.000	270.000	9049.98	1096.33	-1271.19	-826.78	6.93	EOC
10200.00†	91.052	270.011	9049.74	1121.92	-1271.19	-853.08	4.00	
10210.89†	91.488	270.016	9049.50	1132.52	-1271.18	-863.97	4.00	TP
10300.00†	91.488	270.016	9047.19	1219.22	-1271.16	-953.04	0.00	
10400.00†	91.488	270.016	9044.59	1316.51	-1271.13	-1053.01	0.00	
10500.00†	91.488	270.016	9042.00	1413.80	-1271.10	-1152.98	0.00	
10600.00†	91.488	270.016	9039.40	1511.10	-1271.07	-1252.94	0.00	
10700.00†	91.488	270.016	9036.80	1608.39	-1271.04	-1352.91	0.00	

Planned Wellpath Report

Rev-H.0

BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, LP	Slot	No.270H SHL
Area	Eddy County, NM	Well	No.270H
Field	Big Eddy	Wellbore	No.270H PWB
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (88 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10800.00†	91.488	270.016	9034.21	1705.69	-1271.02	-1452.87	0.00	
10900.00†	91.488	270.016	9031.61	1802.98	-1270.99	-1552.84	0.00	
11000.00†	91.488	270.016	9029.02	1900.28	-1270.96	-1652.81	0.00	
11100.00†	91.488	270.016	9026.42	1997.57	-1270.93	-1752.77	0.00	
11200.00†	91.488	270.016	9023.82	2094.86	-1270.90	-1852.74	0.00	
11300.00†	91.488	270.016	9021.23	2192.16	-1270.87	-1952.71	0.00	
11400.00†	91.488	270.016	9018.63	2289.45	-1270.85	-2052.67	0.00	
11424.30†	91.488	270.016	9018.00	2313.09	-1270.84	-2076.96	0.00	2nd Bone Spring B Sand
11500.00†	91.488	270.016	9016.03	2386.75	-1270.82	-2152.64	0.00	
11600.00†	91.488	270.016	9013.44	2484.04	-1270.79	-2252.61	0.00	
11700.00†	91.488	270.016	9010.84	2581.34	-1270.76	-2352.57	0.00	
11800.00†	91.488	270.016	9008.25	2678.63	-1270.73	-2452.54	0.00	
11900.00†	91.488	270.016	9005.65	2775.92	-1270.70	-2552.50	0.00	
12000.00†	91.488	270.016	9003.05	2873.22	-1270.68	-2652.47	0.00	
12100.00†	91.488	270.016	9000.46	2970.51	-1270.65	-2752.44	0.00	
12200.00†	91.488	270.016	8997.86	3067.81	-1270.62	-2852.40	0.00	
12300.00†	91.488	270.016	8995.27	3165.10	-1270.59	-2952.37	0.00	
12400.00†	91.488	270.016	8992.67	3262.40	-1270.56	-3052.34	0.00	
12500.00†	91.488	270.016	8990.07	3359.69	-1270.53	-3152.30	0.00	
12600.00†	91.488	270.016	8987.48	3456.98	-1270.51	-3252.27	0.00	
12700.00†	91.488	270.016	8984.88	3554.28	-1270.48	-3352.23	0.00	
12800.00†	91.488	270.016	8982.29	3651.57	-1270.45	-3452.20	0.00	
12900.00†	91.488	270.016	8979.69	3748.87	-1270.42	-3552.17	0.00	
13000.00†	91.488	270.016	8977.09	3846.16	-1270.39	-3652.13	0.00	
13100.00†	91.488	270.016	8974.50	3943.46	-1270.36	-3752.10	0.00	
13200.00†	91.488	270.016	8971.90	4040.75	-1270.34	-3852.07	0.00	
13300.00†	91.488	270.016	8969.30	4138.04	-1270.31	-3952.03	0.00	
13400.00†	91.488	270.016	8966.71	4235.34	-1270.28	-4052.00	0.00	
13500.00†	91.488	270.016	8964.11	4332.63	-1270.25	-4151.96	0.00	
13600.00†	91.488	270.016	8961.52	4429.93	-1270.22	-4251.93	0.00	
13700.00†	91.488	270.016	8958.92	4527.22	-1270.19	-4351.90	0.00	
13800.00†	91.488	270.016	8956.32	4624.52	-1270.17	-4451.86	0.00	
13900.00†	91.488	270.016	8953.73	4721.81	-1270.14	-4551.83	0.00	
13966.56†	91.488	270.016	8952.00	4786.56	-1270.12	-4618.36	0.00	2nd Bone Spring A Sand
14000.00†	91.488	270.016	8951.13	4819.10	-1270.11	-4651.80	0.00	
14100.00†	91.488	270.016	8948.54	4916.40	-1270.08	-4751.76	0.00	
14200.00†	91.488	270.016	8945.94	5013.69	-1270.05	-4851.73	0.00	
14300.00†	91.488	270.016	8943.34	5110.99	-1270.02	-4951.70	0.00	
14400.00†	91.488	270.016	8940.75	5208.28	-1270.00	-5051.66	0.00	
14500.00†	91.488	270.016	8938.15	5305.57	-1269.97	-5151.63	0.00	
14600.00†	91.488	270.016	8935.56	5402.87	-1269.94	-5251.59	0.00	
14700.00†	91.488	270.016	8932.96	5500.16	-1269.91	-5351.56	0.00	
14736.94	91.488	270.016	8932.00†	5536.10	-1269.90	-5388.49	0.00	No. 270H PBHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) BEU No.270H PBHL		8931.00	-1339.90	-5388.49	631259.30	583687.90	32°36'14.183"N	103°54'25.536"W	point

SURVEY PROGRAM - Ref Wellbore: No.270H PWB - Ref Wellpath: Rev-H.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
29.00	14852.16	NaviTrak (Standard)		No.270H PWB