State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 11/8/17
Well information;
Operator BP, Well Name and Number NEBU 605 Com 2H

API# 30-045-35557, Section 11, Township 31 N/S, Range 7 E/W

Conditions of Approval: (See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for NSL, NSP, DHC

Hold C-104 for 5.9 compliance

- o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- o Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- o 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
- o Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- ✓ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ✓ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ✓ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

NMOCD Approved by Signature — Date: 12-22-2017

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3441 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

Courtesy copy recd & reviewed on 12-21-17
Verbal approval given 12-22-17.

QH

Fee
On Site 5/17/17

NOS: 11/2/17
APDP:
MP:
SMA: FEE
BOND: WY2924
CA/PA: working

OIL CONS. DIV DIST. 3
JAN 05 2018

RECD
NOV 08 2017

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM03358

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
NEBU 605 COM 2H

2. Name of Operator
BP AMERICA PRODUCTION COMPANY

9. API Well No.
30-045-35857

3a. Address
1515 Arapahoe Street, Tower 1, Suite 700 Der

3b. Phone No. *(include area code)*
(970)422-3480

10. Field and Pool, or Exploratory
BASIN MANCOS GAS POOL

4. Location of Well *(Report location clearly and in accordance with any State requirements *)*
At surface SESE / 458 FSL / 796 FEL / LAT 36.908038 / LONG -107.534036
At proposed prod. zone NESE / 2118 FSL / 50 FEL / LAT 36.912569 / LONG -107.495453

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 11 / T31N / R07W / NMP

14. Distance in miles and direction from nearest town or post office*
26.6 miles

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)
250 feet

16. No. of acres in lease
2396.77

17. Spacing Unit dedicated to this well
960

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
942 feet

19. Proposed Depth
7066 feet / 19059 feet

20. BLM/BIA Bond No. on file
FED: WY2924

KP

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6471 feet

22. Approximate date work will start*
03/01/2018

23. Estimated duration
30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Toya Colvin / Ph: (281)892-5369	11/08/2017

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Maryann		12/12/17
Title AFM	Office FARMINGTON	

Application approval 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.
Conditions of approval, if any, are attached.

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.

(Continued on page 2)

*(Instructions on page 2)

FARMINGTON

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

NMOCD-AV

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

FARMINGTON

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
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-35857	97232	Mancos Gas

[4] Property Code	[5] Property Name	[6] Well Number
319806	Northeast Blanco Unit 605 Com	2H

[7] OGRID No.	[8] Operator Name	[9] Elevation
000778	BP America Production Company	6471

[10] Surface Location

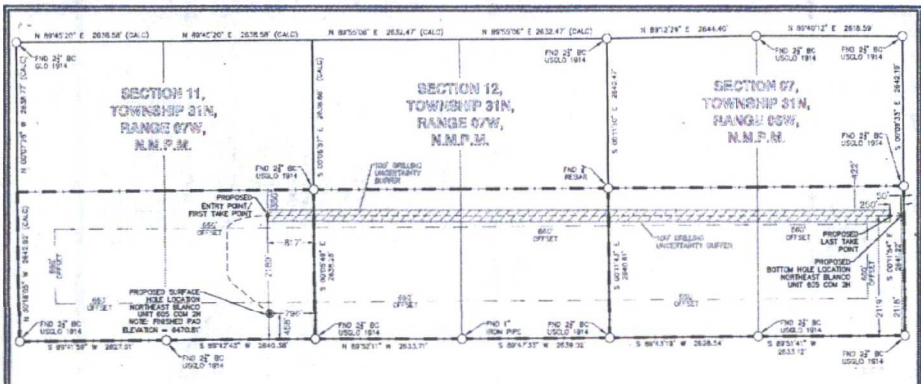
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	11	31N	07W		458	South	796	East	San Juan

[11] 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
I	07	31N	06W		2118	South	50	East	San Juan

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
960.00 - S/2 - SEC. 11, T31N, R07W S/2 - SEC. 12, T31N, R07W S/2 - SEC. 07, T31N, R06W			

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.



LEGEND
FOUND MONUMENT ○
PROPOSED SURFACE HOLE LOCATION ⊛
PROPOSED BOTTOM HOLE LOCATION ×

NEBU 605 COM 2H	NMWZ NAD'83	NAD'83	TIES
PROPOSED SURFACE HOLE LOCATION (SHL)	N (Y) = 2,149,990.20' E (X) = 2,810,594.16'	LAT. = 36.90803887°N LON.= 107.53403604°W	FSL = 458' FEL = 796'
PROPOSED ENTRY POINT (EP)/FIRST TAKE POINT (FTP)	N (Y) = 2,151,721.11' E (X) = 2,810,570.26'	LAT. = 36.91279343°N LON.= 107.53409921°W	FSL = 2189' FEL = 817'
PROPOSED LAST TAKE POINT (LTP)	N (Y) = 2,151,678.01' E (X) = 2,821,668.32'	LAT. = 36.91257336°N LON.= 107.49613766°W	FSL = 2119' FEL = 250'
PROPOSED BOTTOM HOLE LOCATION (BHL)	N (Y) = 2,151,677.23' E (X) = 2,821,868.32'	LAT. = 36.91256928°N LON.= 107.49545355°W	FSL = 2118' FEL = 50'

[17] 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.

RZ Marshall 11/07/2017
Signature Date

Randall Marshall
Printed Name

randall.marshall@bp.com
E-mail Address

[18] 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.

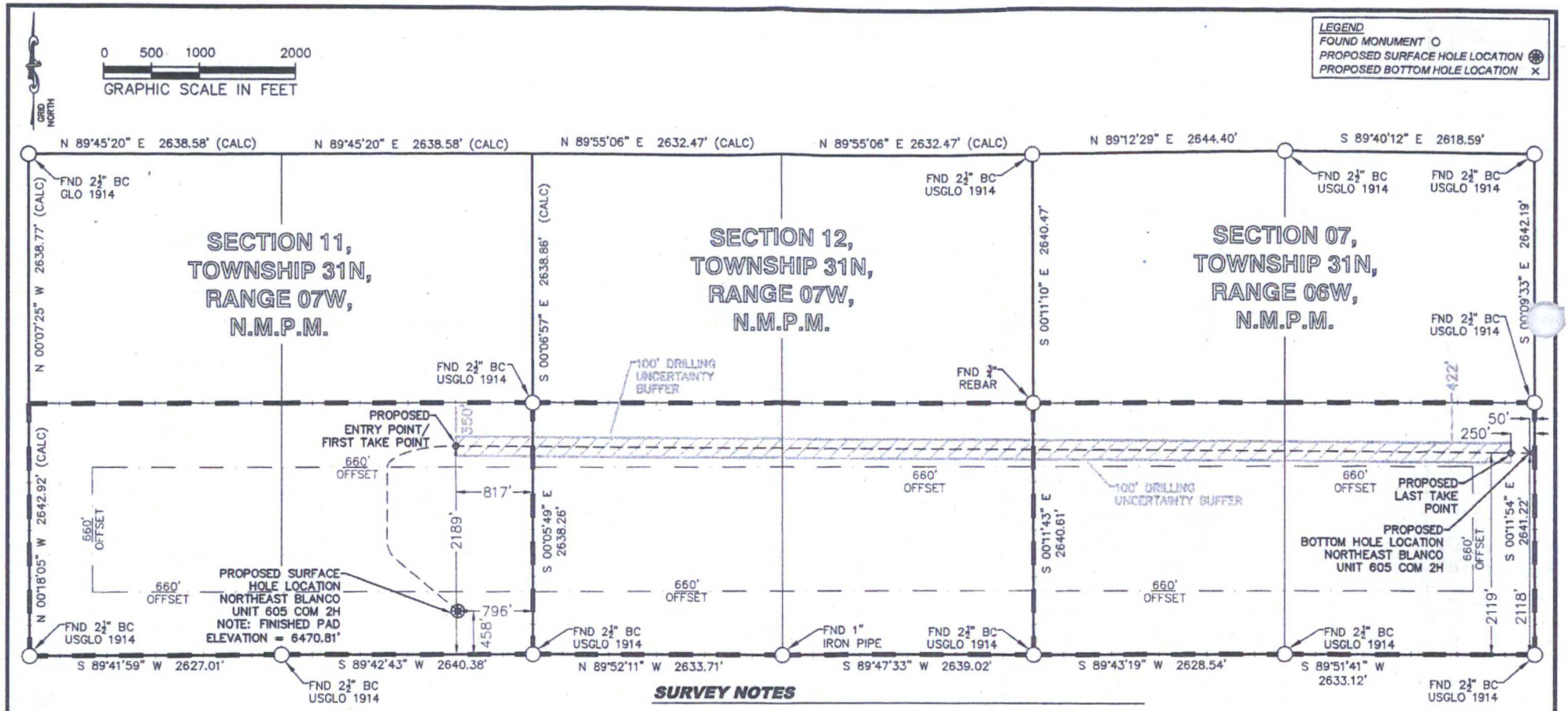
6-13-17
Date of Survey

Signature and Seal of Professional Surveyor:

MARSHALL W. LINDEEN
NEW MEXICO
17078
11-7-17
PROFESSIONAL SURVEYOR

17078
Certificate Number

Surface = Private



NEBU 605 COM 2H WELLBORE DISTANCES	
SHL TO EP/FTP	2,624'
EP/FTP TO LTP	11,098'
EP/FTP TO BHL	11,298'
SHL TO BHL	13,922'

NEBU 605 COM 2H	NMWZ NAD'83	NAD'83	TIES
PROPOSED SURFACE HOLE LOCATION (SHL)	N (Y) = 2,149,990.20' E (X) = 2,810,594.16'	LAT. = 36.90803887°N LON = 107.53403604°W	FSL = 458' FEL = 796'
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MARSHALL W. LINDEEN NEW MEXICO 17078 11-7-17 PROFESSIONAL SURVEYOR

SURVEY NOTES

1. BEARING BASIS FOR THIS SURVEY IS BASED ON THE NORTH AMERICAN DATUM OF 1983, NEW MEXICO STATE PLANE COORDINATE SYSTEM, WEST NEW MEXICO, ZONE 3003.
2. ELEVATION BASIS FOR THIS SURVEY IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID12A).
3. SURVEYED IN THE FIELD ON 06/13/2017.
4. BEARINGS AND DISTANCE SHOWN ARE MEASURED IN THE FIELD UNLESS OTHERWISE NOTED.
5. ALL MEASURED DISTANCES SHOWN ARE GRID USING A COMBINED SCALE FACTOR 0.99961912.

SURVEYOR'S CERTIFICATE

I, MARSHALL LINDEEN, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF NEW MEXICO, DO 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.

DRAWN BY	CHECKED BY	SCALE	DATE	SHEET	REVISION
CFW/RLM	MWL	1"=1000'	11/06/2017	1 OF 1	

bp

BP AMERICA PRODUCTION COMPANY US LOWER 48 ONSHORE

WELL LOCATION PLAT

NORTHEAST BLANCO UNIT 605 COM 2H

PART OF SECTION 07, TOWNSHIP 31N, RANGE 06W, N.M.P.M. AND SECTION 11 AND SECTION 12, TOWNSHIP 31N, RANGE 07W, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO

Company: B.P.
Project: San Juan County, NM NAD83
Site: NEBU 605 Pad
Well: NEBU 605 2H
Wellbore: OH
Design: Plan #1

PROJECT DETAILS: San Juan County, NM NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: Grid

Scientific Drilling

Azimuths to Grid North
True North: -0.18°
Magnetic North: 8.85°

Magnetic Field
Strength: 50009.8snT
Dip Angle: 63.53°
Date: 10/20/2017
Model: HDGM

WELL DETAILS: NEBU 605 2H

GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	2149990.20	2810594.16	36.9080389	-107.5340360

Plan: Plan #1 (NEBU 605 2H/OH)

Created By: Janie Collins Date: 23:12, November 04 2017

DESIGN TARGET DETAILS

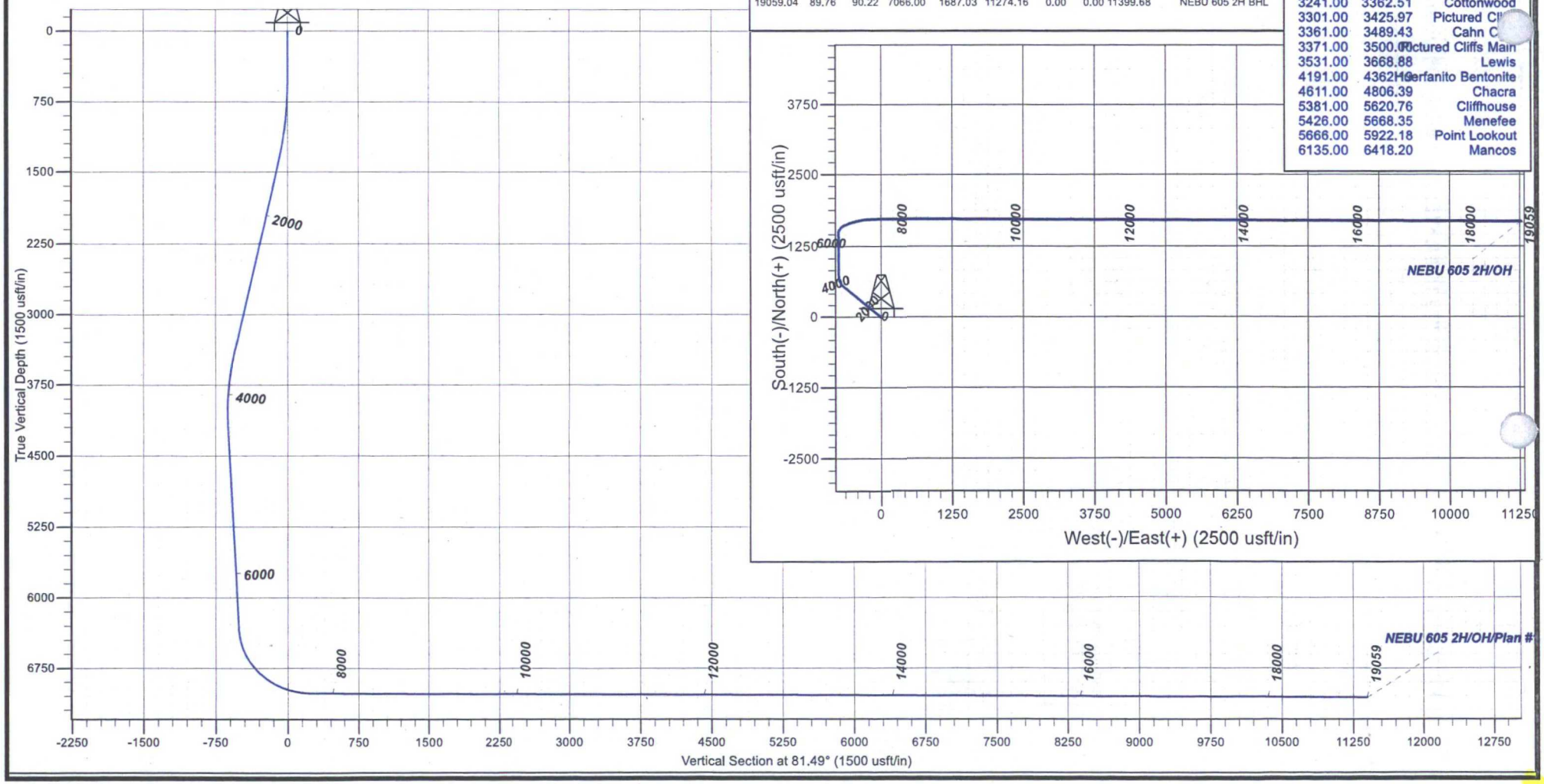
Name	TVD	+N/-S	+E/-W	Northing	Easting
NEBU 605 2H BHL	7066.00	1687.03	11274.16	2151677.23	2821868.32
NEBU 605 2H LP	7016.00	1657.87	-700.00	2151648.07	2809894.16

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
1450.00	19.00	310.00	1432.68	100.32	-119.56	2.00	310.00	-103.40	
3544.00	19.00	310.00	3412.60	538.54	-641.81	0.00	0.00	-555.04	
4334.92	19.00	0.00	4165.22	751.40	-741.05	2.00	113.80	-621.69	
6634.92	19.00	0.00	6339.91	1500.21	-740.99	0.00	0.00	-510.81	
7760.80	90.00	90.22	7017.92	1730.91	-23.90	8.00	90.20	232.52	
7773.00	89.76	90.22	7017.94	1730.86	-11.70	2.00	179.41	244.58	
19059.04	89.76	90.22	7066.00	1687.03	11274.16	0.00	0.00	11399.68	NEBU 605 2H BHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
25.00	25.00	San Jose
2331.00	2400.08	Ojo Alamo
2446.00	2521.70	Kirtland
2971.00	3076.95	Fruitland
3096.00	3209.16	Lemon Coal
3186.00	3304.34	Ignacio Coal
3241.00	3362.51	Cottonwood
3301.00	3425.97	Pictured Cl
3361.00	3489.43	Cahn C
3371.00	3500.00	Pictured Cliffs Main
3531.00	3668.88	Lewis
4191.00	4362.19	Cherfanito Bentonite
4611.00	4806.39	Chacra
5381.00	5620.76	Cliffhouse
5426.00	5668.35	Menefee
5666.00	5922.18	Point Lookout
6135.00	6418.20	Mancos

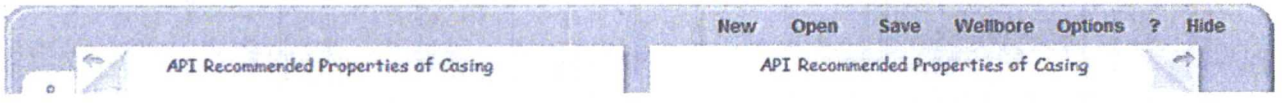


Production Casing Design - Evacuation/Casing Test (collaspe & burst), 100k overpull (tension)

	Collapse	Burst	Tension
Min Safety Factors	1.125	1.100	1.400

	Size	Weight	Grade	Conn	Collapse	Burst	Tension (Pipe Body)	Tension (Connection)
Production	5.5	20	P110	GBCD	13,300	10,640	546,000	568,000
					80% of Burst =	8,512		

	Casing Depth TVD	MW in	MW out	Pres in	Pres out	SF	
Collapse	7066	0.00	13.30	0	4887	2.72	Full evacuation with 13.3 ppg annulus
Burst	7066	9.0	0	1500	0	7.09	1500 psi casing test
		Mud Wt	Air Wt	Bouy Wt	BW +100k		
Tension (Pipe Body)	7066	9.0	141,320	121,902	221,902	2.46	100k over pull
Tension (Connection)	7066	9.0	141,320	121,902	221,902	2.56	
	BF= 1- (MW)/65.5 =	0.8626					



B.P.

San Juan County, NM NAD83
NEBU 605 Pad
NEBU 605 2H

OH

Plan: Plan #1

Standard Planning Report

04 November, 2017

Scientific Drilling

www.scientificdrilling.com

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well NEBU 605 2H
Company:	B.P.	**TVD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Site:	NEBU 605 Pad	**North Reference:**	Grid
Well:	NEBU 605 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	San Juan County, NM NAD83		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	NEBU 605 Pad				
Site Position:		**Northing:**	2,149,972.24 usft	**Latitude:**	36.9079896
From:	Map	**Easting:**	2,810,585.35 usft	**Longitude:**	-107.5340664
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.20 in	**Grid Convergence:**	0.18 °

Well	NEBU 605 2H					
Well Position	**+N/-S**	17.96 usft	**Northing:**	2,149,990.20 usft	**Latitude:**	36.9080388
	+E/-W	8.81 usft	**Easting:**	2,810,594.16 usft	**Longitude:**	-107.5340361
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,471.00 usft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	10/20/2017	9.03	63.53	50,010

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	81.49	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,450.00	19.00	310.00	1,432.68	100.32	-119.56	2.00	2.00	0.00	310.00	
3,544.00	19.00	310.00	3,412.60	538.54	-641.81	0.00	0.00	0.00	0.00	
4,334.92	19.00	0.01	4,165.22	751.40	-741.05	2.00	0.00	6.32	113.80	
6,634.92	19.00	0.01	6,339.91	1,500.21	-740.99	0.00	0.00	0.00	0.00	
7,760.80	90.00	90.22	7,017.92	1,730.91	-23.90	8.00	6.31	8.01	90.20	
7,773.00	89.76	90.22	7,017.94	1,730.86	-11.70	2.00	-2.00	0.02	179.41	
19,059.05	89.76	90.22	7,066.00	1,687.03	11,274.16	0.00	0.00	0.00	0.00	NEBU 605 2H BHL

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well NEBU 605 2H
Company:	B.P.	**TVD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Site:	NEBU 605 Pad	**North Reference:**	Grid
Well:	NEBU 605 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
25.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00
San Jose									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	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
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	2.00	310.00	599.98	1.12	-1.34	-1.16	2.00	2.00	0.00
700.00	4.00	310.00	699.84	4.49	-5.35	-4.62	2.00	2.00	0.00
800.00	6.00	310.00	799.45	10.09	-12.02	-10.40	2.00	2.00	0.00
900.00	8.00	310.00	898.70	17.92	-21.36	-18.47	2.00	2.00	0.00
1,000.00	10.00	310.00	997.47	27.98	-33.34	-28.83	2.00	2.00	0.00
1,100.00	12.00	310.00	1,095.62	40.24	-47.96	-41.47	2.00	2.00	0.00
1,200.00	14.00	310.00	1,193.06	54.70	-65.19	-56.38	2.00	2.00	0.00
1,300.00	16.00	310.00	1,289.64	71.33	-85.01	-73.52	2.00	2.00	0.00
1,400.00	18.00	310.00	1,385.27	90.13	-107.41	-92.89	2.00	2.00	0.00
1,450.00	19.00	310.00	1,432.68	100.32	-119.56	-103.40	2.00	2.00	0.00
1,500.00	19.00	310.00	1,479.96	110.79	-132.03	-114.18	0.00	0.00	0.00
1,600.00	19.00	310.00	1,574.51	131.72	-156.97	-135.75	0.00	0.00	0.00
1,700.00	19.00	310.00	1,669.06	152.64	-181.91	-157.32	0.00	0.00	0.00
1,800.00	19.00	310.00	1,763.62	173.57	-206.85	-178.89	0.00	0.00	0.00
1,900.00	19.00	310.00	1,858.17	194.50	-231.79	-200.46	0.00	0.00	0.00
2,000.00	19.00	310.00	1,952.72	215.42	-256.73	-222.03	0.00	0.00	0.00
2,100.00	19.00	310.00	2,047.27	236.35	-281.67	-243.59	0.00	0.00	0.00
2,200.00	19.00	310.00	2,141.82	257.28	-306.61	-265.16	0.00	0.00	0.00
2,300.00	19.00	310.00	2,236.37	278.21	-331.55	-286.73	0.00	0.00	0.00
2,400.00	19.00	310.00	2,330.93	299.13	-356.49	-308.30	0.00	0.00	0.00
2,400.08	19.00	310.00	2,331.00	299.15	-356.51	-308.32	0.00	0.00	0.00
Ojo Alamo									
2,500.00	19.00	310.00	2,425.48	320.06	-381.43	-329.87	0.00	0.00	0.00
2,521.70	19.00	310.00	2,446.00	324.60	-386.85	-334.55	0.00	0.00	0.00
Kirtland									
2,600.00	19.00	310.00	2,520.03	340.99	-406.37	-351.44	0.00	0.00	0.00
2,700.00	19.00	310.00	2,614.58	361.91	-431.31	-373.00	0.00	0.00	0.00
2,800.00	19.00	310.00	2,709.13	382.84	-456.25	-394.57	0.00	0.00	0.00
2,900.00	19.00	310.00	2,803.69	403.77	-481.19	-416.14	0.00	0.00	0.00
3,000.00	19.00	310.00	2,898.24	424.70	-506.13	-437.71	0.00	0.00	0.00
3,076.95	19.00	310.00	2,971.00	440.80	-525.32	-454.31	0.00	0.00	0.00
Fruitland									
3,100.00	19.00	310.00	2,992.79	445.62	-531.07	-459.28	0.00	0.00	0.00
3,200.00	19.00	310.00	3,087.34	466.55	-556.01	-480.85	0.00	0.00	0.00
3,209.16	19.00	310.00	3,096.00	468.47	-558.30	-482.82	0.00	0.00	0.00
Lemon Coal									
3,300.00	19.00	310.00	3,181.89	487.48	-580.95	-502.41	0.00	0.00	0.00
3,304.34	19.00	310.00	3,186.00	488.39	-582.04	-503.35	0.00	0.00	0.00
Ignacio Coal									
3,362.51	19.00	310.00	3,241.00	500.56	-596.54	-515.90	0.00	0.00	0.00
Cottonwood									
3,400.00	19.00	310.00	3,276.45	508.40	-605.89	-523.98	0.00	0.00	0.00
3,425.97	19.00	310.00	3,301.00	513.84	-612.37	-529.58	0.00	0.00	0.00

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well NEBU 605 2H
Company:	B.P.	**TVD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Site:	NEBU 605 Pad	**North Reference:**	Grid
Well:	NEBU 605 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
Pictured Cliffs									
3,489.43	19.00	310.00	3,361.00	527.12	-628.19	-543.27	0.00	0.00	0.00
Cahn Coal									
3,500.00	19.00	310.00	3,371.00	529.33	-630.83	-545.55	0.00	0.00	0.00
Pictured Cliffs Main									
3,544.00	19.00	310.00	3,412.60	538.54	-641.81	-555.04	0.00	0.00	0.00
3,600.00	18.58	313.22	3,465.62	550.51	-655.29	-566.60	2.00	-0.76	5.75
3,668.88	18.13	317.36	3,531.00	565.91	-670.55	-579.41	2.00	-0.64	6.01
Lewis									
3,700.00	17.96	319.29	3,560.59	573.10	-676.95	-584.69	2.00	-0.55	6.21
3,800.00	17.55	325.71	3,655.83	597.25	-695.50	-599.46	2.00	-0.41	6.42
3,900.00	17.35	332.35	3,751.24	622.91	-710.91	-610.90	2.00	-0.20	6.64
4,000.00	17.37	339.06	3,846.70	650.07	-723.17	-619.00	2.00	0.02	6.71
4,100.00	17.62	345.67	3,942.08	678.67	-732.25	-623.75	2.00	0.24	6.61
4,200.00	18.07	352.02	4,037.28	708.70	-738.15	-625.14	2.00	0.46	6.36
4,300.00	18.73	358.01	4,132.17	740.11	-740.86	-623.17	2.00	0.65	5.99
4,334.92	19.00	0.01	4,165.22	751.40	-741.05	-621.69	2.00	0.78	5.70
4,362.19	19.00	0.01	4,191.00	760.28	-741.05	-620.38	0.00	0.00	0.00
Huerfanito Bentonite									
4,400.00	19.00	0.01	4,226.75	772.59	-741.05	-618.56	0.00	0.00	0.00
4,500.00	19.00	0.01	4,321.30	805.14	-741.05	-613.74	0.00	0.00	0.00
4,600.00	19.00	0.01	4,415.85	837.70	-741.05	-608.92	0.00	0.00	0.00
4,700.00	19.00	0.01	4,510.41	870.26	-741.04	-604.09	0.00	0.00	0.00
4,800.00	19.00	0.01	4,604.96	902.82	-741.04	-599.27	0.00	0.00	0.00
4,806.39	19.00	0.01	4,611.00	904.90	-741.04	-598.97	0.00	0.00	0.00
Chacra									
4,900.00	19.00	0.01	4,699.51	935.37	-741.04	-594.45	0.00	0.00	0.00
5,000.00	19.00	0.01	4,794.06	967.93	-741.03	-589.63	0.00	0.00	0.00
5,100.00	19.00	0.01	4,888.61	1,000.49	-741.03	-584.81	0.00	0.00	0.00
5,200.00	19.00	0.01	4,983.17	1,033.04	-741.03	-579.99	0.00	0.00	0.00
5,300.00	19.00	0.01	5,077.72	1,065.60	-741.03	-575.17	0.00	0.00	0.00
5,400.00	19.00	0.01	5,172.27	1,098.16	-741.02	-570.35	0.00	0.00	0.00
5,500.00	19.00	0.01	5,266.82	1,130.71	-741.02	-565.53	0.00	0.00	0.00
5,600.00	19.00	0.01	5,361.37	1,163.27	-741.02	-560.71	0.00	0.00	0.00
5,620.76	19.00	0.01	5,381.00	1,170.03	-741.02	-559.71	0.00	0.00	0.00
Cliffhouse									
5,668.35	19.00	0.01	5,426.00	1,185.52	-741.02	-557.41	0.00	0.00	0.00
Menefee									
5,700.00	19.00	0.01	5,455.92	1,195.83	-741.01	-555.89	0.00	0.00	0.00
5,800.00	19.00	0.01	5,550.48	1,228.38	-741.01	-551.06	0.00	0.00	0.00
5,900.00	19.00	0.01	5,645.03	1,260.94	-741.01	-546.24	0.00	0.00	0.00
5,922.18	19.00	0.01	5,666.00	1,268.16	-741.01	-545.17	0.00	0.00	0.00
Point Lookout									
6,000.00	19.00	0.01	5,739.58	1,293.50	-741.01	-541.42	0.00	0.00	0.00
6,100.00	19.00	0.01	5,834.13	1,326.05	-741.00	-536.60	0.00	0.00	0.00
6,200.00	19.00	0.01	5,928.68	1,358.61	-741.00	-531.78	0.00	0.00	0.00
6,300.00	19.00	0.01	6,023.24	1,391.17	-741.00	-526.96	0.00	0.00	0.00
6,400.00	19.00	0.01	6,117.79	1,423.72	-740.99	-522.14	0.00	0.00	0.00
6,418.20	19.00	0.01	6,135.00	1,429.65	-740.99	-521.26	0.00	0.00	0.00
Mancos									
6,500.00	19.00	0.01	6,212.34	1,456.28	-740.99	-517.32	0.00	0.00	0.00

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well NEBU 605 2H
Company:	B.P.	**TVD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Site:	NEBU 605 Pad	**North Reference:**	Grid
Well:	NEBU 605 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
6,600.00	19.00	0.01	6,306.89	1,488.84	-740.99	-512.50	0.00	0.00	0.00
6,634.92	19.00	0.01	6,339.91	1,500.21	-740.99	-510.81	0.00	0.00	0.00
6,700.00	19.66	15.65	6,401.36	1,521.36	-738.03	-504.76	8.00	1.01	24.05
6,800.00	22.96	35.85	6,494.64	1,553.41	-722.04	-484.20	8.00	3.30	20.20
6,900.00	28.13	50.12	6,584.92	1,584.38	-692.48	-450.39	8.00	5.17	14.26
7,000.00	34.32	59.93	6,670.45	1,613.67	-649.93	-403.97	8.00	6.20	9.81
7,100.00	41.08	66.96	6,749.56	1,640.70	-595.20	-345.84	8.00	6.76	7.02
7,200.00	48.16	72.27	6,820.71	1,664.95	-529.38	-277.16	8.00	7.08	5.31
NEBU 605 2H LP									
7,208.07	48.75	72.64	6,826.07	1,666.77	-523.62	-271.19	8.00	7.20	4.65
NEBU 605 2H LP A									
7,300.00	55.44	76.50	6,882.52	1,685.94	-453.73	-199.24	8.00	7.28	4.20
7,400.00	62.84	80.05	6,933.79	1,703.27	-369.74	-113.60	8.00	7.40	3.55
7,500.00	70.32	83.15	6,973.51	1,716.60	-279.03	-21.92	8.00	7.48	3.10
7,600.00	77.85	85.97	7,000.92	1,725.67	-183.37	74.03	8.00	7.53	2.82
7,700.00	85.40	88.63	7,015.48	1,730.30	-84.63	172.37	8.00	7.55	2.67
7,760.80	90.00	90.22	7,017.92	1,730.91	-23.90	232.52	8.00	7.56	2.61
7,773.00	89.76	90.22	7,017.94	1,730.86	-11.70	244.58	2.00	-2.00	0.02
7,800.00	89.76	90.22	7,018.06	1,730.76	15.30	271.27	0.00	0.00	0.00
7,900.00	89.76	90.22	7,018.48	1,730.37	115.30	370.11	0.00	0.00	0.00
8,000.00	89.76	90.22	7,018.91	1,729.98	215.30	468.95	0.00	0.00	0.00
8,100.00	89.76	90.22	7,019.33	1,729.59	315.30	567.79	0.00	0.00	0.00
8,200.00	89.76	90.22	7,019.76	1,729.20	415.30	666.63	0.00	0.00	0.00
8,300.00	89.76	90.22	7,020.19	1,728.82	515.29	765.47	0.00	0.00	0.00
8,400.00	89.76	90.22	7,020.61	1,728.43	615.29	864.31	0.00	0.00	0.00
8,500.00	89.76	90.22	7,021.04	1,728.04	715.29	963.15	0.00	0.00	0.00
8,600.00	89.76	90.22	7,021.46	1,727.65	815.29	1,061.99	0.00	0.00	0.00
8,700.00	89.76	90.22	7,021.89	1,727.26	915.29	1,160.83	0.00	0.00	0.00
8,800.00	89.76	90.22	7,022.32	1,726.87	1,015.29	1,259.67	0.00	0.00	0.00
8,900.00	89.76	90.22	7,022.74	1,726.49	1,115.28	1,358.51	0.00	0.00	0.00
9,000.00	89.76	90.22	7,023.17	1,726.10	1,215.28	1,457.34	0.00	0.00	0.00
9,100.00	89.76	90.22	7,023.59	1,725.71	1,315.28	1,556.18	0.00	0.00	0.00
9,200.00	89.76	90.22	7,024.02	1,725.32	1,415.28	1,655.02	0.00	0.00	0.00
9,300.00	89.76	90.22	7,024.44	1,724.93	1,515.28	1,753.86	0.00	0.00	0.00
9,400.00	89.76	90.22	7,024.87	1,724.54	1,615.28	1,852.70	0.00	0.00	0.00
9,500.00	89.76	90.22	7,025.30	1,724.16	1,715.27	1,951.54	0.00	0.00	0.00
9,600.00	89.76	90.22	7,025.72	1,723.77	1,815.27	2,050.38	0.00	0.00	0.00
9,700.00	89.76	90.22	7,026.15	1,723.38	1,915.27	2,149.22	0.00	0.00	0.00
9,800.00	89.76	90.22	7,026.57	1,722.99	2,015.27	2,248.06	0.00	0.00	0.00
9,900.00	89.76	90.22	7,027.00	1,722.60	2,115.27	2,346.90	0.00	0.00	0.00
10,000.00	89.76	90.22	7,027.43	1,722.21	2,215.27	2,445.74	0.00	0.00	0.00
10,100.00	89.76	90.22	7,027.85	1,721.83	2,315.26	2,544.58	0.00	0.00	0.00
10,200.00	89.76	90.22	7,028.28	1,721.44	2,415.26	2,643.42	0.00	0.00	0.00
10,300.00	89.76	90.22	7,028.70	1,721.05	2,515.26	2,742.26	0.00	0.00	0.00
10,400.00	89.76	90.22	7,029.13	1,720.66	2,615.26	2,841.10	0.00	0.00	0.00
10,500.00	89.76	90.22	7,029.55	1,720.27	2,715.26	2,939.94	0.00	0.00	0.00
10,600.00	89.76	90.22	7,029.98	1,719.88	2,815.26	3,038.78	0.00	0.00	0.00
10,700.00	89.76	90.22	7,030.41	1,719.50	2,915.25	3,137.62	0.00	0.00	0.00
10,800.00	89.76	90.22	7,030.83	1,719.11	3,015.25	3,236.46	0.00	0.00	0.00
10,900.00	89.76	90.22	7,031.26	1,718.72	3,115.25	3,335.30	0.00	0.00	0.00
11,000.00	89.76	90.22	7,031.68	1,718.33	3,215.25	3,434.14	0.00	0.00	0.00
11,100.00	89.76	90.22	7,032.11	1,717.94	3,315.25	3,532.98	0.00	0.00	0.00

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well NEBU 605 2H
Company:	B.P.	**TVD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Site:	NEBU 605 Pad	**North Reference:**	Grid
Well:	NEBU 605 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	89.76	90.22	7,032.54	1,717.55	3,415.25	3,631.82	0.00	0.00	0.00
11,300.00	89.76	90.22	7,032.96	1,717.16	3,515.24	3,730.66	0.00	0.00	0.00
11,400.00	89.76	90.22	7,033.39	1,716.78	3,615.24	3,829.50	0.00	0.00	0.00
11,500.00	89.76	90.22	7,033.81	1,716.39	3,715.24	3,928.34	0.00	0.00	0.00
11,600.00	89.76	90.22	7,034.24	1,716.00	3,815.24	4,027.18	0.00	0.00	0.00
11,700.00	89.76	90.22	7,034.66	1,715.61	3,915.24	4,126.02	0.00	0.00	0.00
11,800.00	89.76	90.22	7,035.09	1,715.22	4,015.24	4,224.86	0.00	0.00	0.00
11,900.00	89.76	90.22	7,035.52	1,714.83	4,115.23	4,323.70	0.00	0.00	0.00
12,000.00	89.76	90.22	7,035.94	1,714.45	4,215.23	4,422.54	0.00	0.00	0.00
12,100.00	89.76	90.22	7,036.37	1,714.06	4,315.23	4,521.38	0.00	0.00	0.00
12,200.00	89.76	90.22	7,036.79	1,713.67	4,415.23	4,620.22	0.00	0.00	0.00
12,300.00	89.76	90.22	7,037.22	1,713.28	4,515.23	4,719.06	0.00	0.00	0.00
12,400.00	89.76	90.22	7,037.64	1,712.89	4,615.23	4,817.90	0.00	0.00	0.00
12,500.00	89.76	90.22	7,038.07	1,712.50	4,715.22	4,916.74	0.00	0.00	0.00
12,600.00	89.76	90.22	7,038.50	1,712.12	4,815.22	5,015.58	0.00	0.00	0.00
12,700.00	89.76	90.22	7,038.92	1,711.73	4,915.22	5,114.42	0.00	0.00	0.00
12,800.00	89.76	90.22	7,039.35	1,711.34	5,015.22	5,213.26	0.00	0.00	0.00
12,900.00	89.76	90.22	7,039.77	1,710.95	5,115.22	5,312.10	0.00	0.00	0.00
13,000.00	89.76	90.22	7,040.20	1,710.56	5,215.22	5,410.94	0.00	0.00	0.00
13,100.00	89.76	90.22	7,040.63	1,710.17	5,315.21	5,509.78	0.00	0.00	0.00
13,200.00	89.76	90.22	7,041.05	1,709.79	5,415.21	5,608.62	0.00	0.00	0.00
13,300.00	89.76	90.22	7,041.48	1,709.40	5,515.21	5,707.46	0.00	0.00	0.00
13,400.00	89.76	90.22	7,041.90	1,709.01	5,615.21	5,806.30	0.00	0.00	0.00
13,500.00	89.76	90.22	7,042.33	1,708.62	5,715.21	5,905.13	0.00	0.00	0.00
13,600.00	89.76	90.22	7,042.75	1,708.23	5,815.21	6,003.97	0.00	0.00	0.00
13,700.00	89.76	90.22	7,043.18	1,707.84	5,915.20	6,102.81	0.00	0.00	0.00
13,800.00	89.76	90.22	7,043.61	1,707.46	6,015.20	6,201.65	0.00	0.00	0.00
13,900.00	89.76	90.22	7,044.03	1,707.07	6,115.20	6,300.49	0.00	0.00	0.00
14,000.00	89.76	90.22	7,044.46	1,706.68	6,215.20	6,399.33	0.00	0.00	0.00
14,100.00	89.76	90.22	7,044.88	1,706.29	6,315.20	6,498.17	0.00	0.00	0.00
14,200.00	89.76	90.22	7,045.31	1,705.90	6,415.20	6,597.01	0.00	0.00	0.00
14,300.00	89.76	90.22	7,045.74	1,705.51	6,515.19	6,695.85	0.00	0.00	0.00
14,400.00	89.76	90.22	7,046.16	1,705.12	6,615.19	6,794.69	0.00	0.00	0.00
14,500.00	89.76	90.22	7,046.59	1,704.74	6,715.19	6,893.53	0.00	0.00	0.00
14,600.00	89.76	90.22	7,047.01	1,704.35	6,815.19	6,992.37	0.00	0.00	0.00
14,700.00	89.76	90.22	7,047.44	1,703.96	6,915.19	7,091.21	0.00	0.00	0.00
14,800.00	89.76	90.22	7,047.86	1,703.57	7,015.19	7,190.05	0.00	0.00	0.00
14,900.00	89.76	90.22	7,048.29	1,703.18	7,115.18	7,288.89	0.00	0.00	0.00
15,000.00	89.76	90.22	7,048.72	1,702.79	7,215.18	7,387.73	0.00	0.00	0.00
15,100.00	89.76	90.22	7,049.14	1,702.41	7,315.18	7,486.57	0.00	0.00	0.00
15,200.00	89.76	90.22	7,049.57	1,702.02	7,415.18	7,585.41	0.00	0.00	0.00
15,300.00	89.76	90.22	7,049.99	1,701.63	7,515.18	7,684.25	0.00	0.00	0.00
15,400.00	89.76	90.22	7,050.42	1,701.24	7,615.18	7,783.09	0.00	0.00	0.00
15,500.00	89.76	90.22	7,050.85	1,700.85	7,715.17	7,881.93	0.00	0.00	0.00
15,600.00	89.76	90.22	7,051.27	1,700.46	7,815.17	7,980.77	0.00	0.00	0.00
15,700.00	89.76	90.22	7,051.70	1,700.08	7,915.17	8,079.61	0.00	0.00	0.00
15,800.00	89.76	90.22	7,052.12	1,699.69	8,015.17	8,178.45	0.00	0.00	0.00
15,900.00	89.76	90.22	7,052.55	1,699.30	8,115.17	8,277.29	0.00	0.00	0.00
16,000.00	89.76	90.22	7,052.97	1,698.91	8,215.17	8,376.13	0.00	0.00	0.00
16,100.00	89.76	90.22	7,053.40	1,698.52	8,315.16	8,474.97	0.00	0.00	0.00
16,200.00	89.76	90.22	7,053.83	1,698.13	8,415.16	8,573.81	0.00	0.00	0.00
16,300.00	89.76	90.22	7,054.25	1,697.75	8,515.16	8,672.65	0.00	0.00	0.00

Database:	Grand Junction District	**Local Co-ordinate Reference:**	Well NEBU 605 2H
Company:	B.P.	**TVD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6471' & RKB 25' @ 6496.00usft (Aztec 1000)
Site:	NEBU 605 Pad	**North Reference:**	Grid
Well:	NEBU 605 2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
16,400.00	89.76	90.22	7,054.68	1,697.36	8,615.16	8,771.49	0.00	0.00	0.00
16,500.00	89.76	90.22	7,055.10	1,696.97	8,715.16	8,870.33	0.00	0.00	0.00
16,600.00	89.76	90.22	7,055.53	1,696.58	8,815.16	8,969.17	0.00	0.00	0.00
16,700.00	89.76	90.22	7,055.95	1,696.19	8,915.15	9,068.01	0.00	0.00	0.00
16,800.00	89.76	90.22	7,056.38	1,695.80	9,015.15	9,166.85	0.00	0.00	0.00
16,900.00	89.76	90.22	7,056.81	1,695.42	9,115.15	9,265.69	0.00	0.00	0.00
17,000.00	89.76	90.22	7,057.23	1,695.03	9,215.15	9,364.53	0.00	0.00	0.00
17,100.00	89.76	90.22	7,057.66	1,694.64	9,315.15	9,463.37	0.00	0.00	0.00
17,200.00	89.76	90.22	7,058.08	1,694.25	9,415.15	9,562.21	0.00	0.00	0.00
17,300.00	89.76	90.22	7,058.51	1,693.86	9,515.14	9,661.05	0.00	0.00	0.00
17,400.00	89.76	90.22	7,058.94	1,693.47	9,615.14	9,759.89	0.00	0.00	0.00
17,500.00	89.76	90.22	7,059.36	1,693.09	9,715.14	9,858.73	0.00	0.00	0.00
17,600.00	89.76	90.22	7,059.79	1,692.70	9,815.14	9,957.57	0.00	0.00	0.00
17,700.00	89.76	90.22	7,060.21	1,692.31	9,915.14	10,056.41	0.00	0.00	0.00
17,800.00	89.76	90.22	7,060.64	1,691.92	10,015.14	10,155.25	0.00	0.00	0.00
17,900.00	89.76	90.22	7,061.06	1,691.53	10,115.13	10,254.09	0.00	0.00	0.00
18,000.00	89.76	90.22	7,061.49	1,691.14	10,215.13	10,352.93	0.00	0.00	0.00
18,100.00	89.76	90.22	7,061.92	1,690.75	10,315.13	10,451.76	0.00	0.00	0.00
18,200.00	89.76	90.22	7,062.34	1,690.37	10,415.13	10,550.60	0.00	0.00	0.00
18,300.00	89.76	90.22	7,062.77	1,689.98	10,515.13	10,649.44	0.00	0.00	0.00
18,400.00	89.76	90.22	7,063.19	1,689.59	10,615.13	10,748.28	0.00	0.00	0.00
18,500.00	89.76	90.22	7,063.62	1,689.20	10,715.12	10,847.12	0.00	0.00	0.00
18,600.00	89.76	90.22	7,064.05	1,688.81	10,815.12	10,945.96	0.00	0.00	0.00
18,700.00	89.76	90.22	7,064.47	1,688.42	10,915.12	11,044.80	0.00	0.00	0.00
18,800.00	89.76	90.22	7,064.90	1,688.04	11,015.12	11,143.64	0.00	0.00	0.00
18,900.00	89.76	90.22	7,065.32	1,687.65	11,115.12	11,242.48	0.00	0.00	0.00
19,000.00	89.76	90.22	7,065.75	1,687.26	11,215.12	11,341.32	0.00	0.00	0.00
19,058.34	89.76	90.22	7,066.00	1,687.03	11,273.45	11,398.98	0.00	0.00	0.00
NEBU 605 2H BHL C - NEBU 605 2H BHL A									
19,059.05	89.76	90.22	7,066.00	1,687.03	11,274.16	11,399.68	0.00	0.00	0.00
NEBU 605 2H BHL D - NEBU 605 2H BHL									

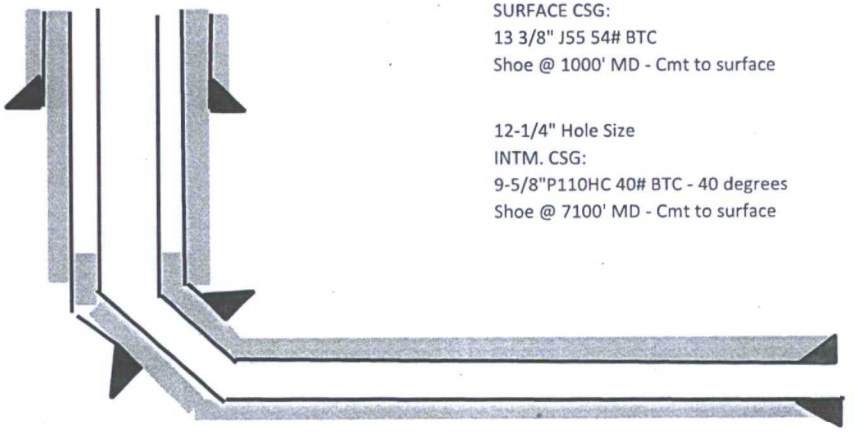
Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NEBU 605 2H LP - plan misses target center by 259.34usft at 7206.16usft MD (6824.80 TVD, 1666.34 N, -524.99 E) - Point	0.00	0.00	7,016.00	1,657.87	-700.00	2,151,648.07	2,809,894.16	36.9125986	-107.5364127
NEBU 605 2H BHL - plan hits target center - Point	0.00	0.00	7,066.00	1,687.03	11,274.16	2,151,677.23	2,821,868.32	36.9125692	-107.4954536

SUNDRY NEBU 605-2H PILOT HOLE WBD

Depths referenced to GL of 6470' & RKB 25' @ 6495'

Marker	TVD	MD
Animas	25	25
Ojo Alamo	2331	2400
Kirtland	2446	2521
Fruitland Coal	2971	3076
Pictured Cliffs	3361	3500
Cliffhouse	5381	5620
Mancos	6135	6418
TD	7066	19059



17.5" Hole Size
SURFACE CSG:
13 3/8" J55 54# BTC
Shoe @ 1000' MD - Cmt to surface

12-1/4" Hole Size
INTM. CSG:
9-5/8"P110HC 40# BTC - 40 degrees
Shoe @ 7100' MD - Cmt to surface

8-3/4" Hole Size
Prod Csg:
5-1/2" P110 20# GBCD
Shoe @ 19059' MD -
Cmt to overlap 9-5/8" shoe @ ~6100'

Attachment to Application for Permit to Drill.
Drilling program

BP America Production Company
US Lower 48 Onshore
200 Energy Court
Farmington, NM 87401

NEBU 605 Com #2H
Mancos Horizontal Development Well
Surface Location: 458' FSL & 796' FEL
Section 11, T31N, R07W
GL Elevation = 6470.81'
Lat. = 36.90803887°N
Long. = 107.53403604°W
NAD83
San Juan County, New Mexico

Proposed Bottom Hole Location Lateral: 2118' FSL – 50' FEL
Section 07, T31N, R06W
San Juan County, New Mexico

Drilling program written in compliance with onshore Oil and Gas Order No. 1

(III.D.3, effective May 2007) and Onshore Order No. 2 Dated November 18, 1988

SECTION – 1 – GEOLOGIC FORMATIONS AND CONTENTS

Marker	TVD	MD	Comments	BHP PSI/FT
Tertiary/San Jose Ss	25	25	Wet/aquifer	0.43
Ojo Alamo Ss	2,331	2,400	Wet/aquifer	0.43
Kirtland (Top/Cretaceous)	2,446	2,521	Gas & water-bearing	0.43
Fruitland	2,971	3,076	Gas & water-bearing	0.15
Lemon coal zone	3,096	3,209	Gas & water-bearing	0.07
Ignacio coal zone	3,186	3,304	Gas & water-bearing	0.07
Cotton Wood Coal	3,241	3,362	Gas & water-bearing	0.07
Pictured Cliff Ss	3,361	3,500	Wet	0.12
Cliffhouse Ss	5,381	5,620	Gas- & water-bearing	0.35
Mancos sh	6,135	6,418	Gas-bearing	0.43
TD – Lateral - Mancos	7,066	19,059	Gas-bearing	0.43

Possible Aquifers: San Jose and Ojo Alamo

Oil Shale: None Expected.

Oil & Gas: Primary objective is the Mancos formation from 7,016' TVD (landing point) to 7,066' TVD (toe).

Protection of oil, gas, water, or other mineral bearing formations: Protection shall be accomplished by setting surface casing below base of possible aquifer and cementing surface casing to surface.

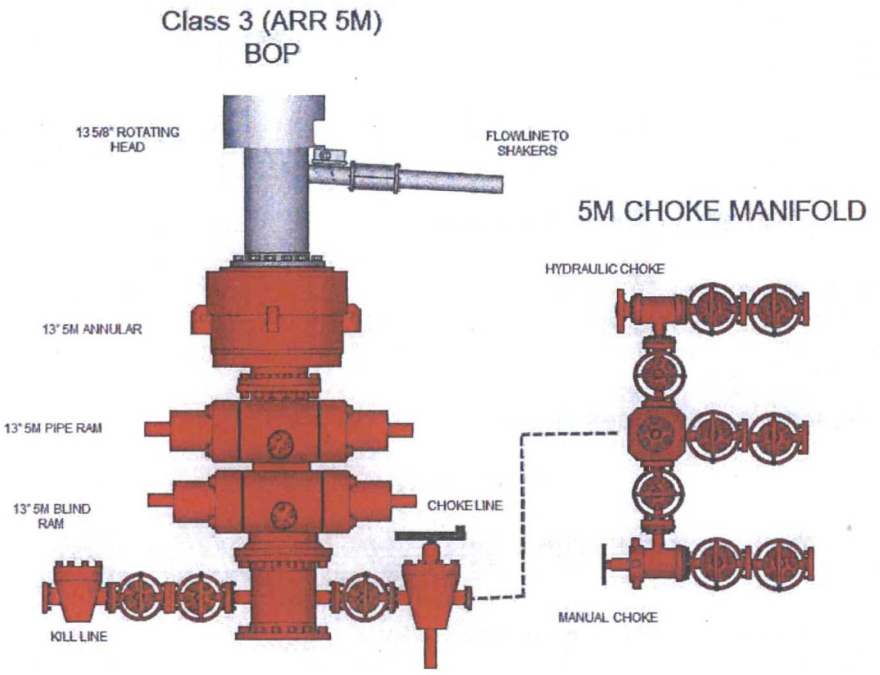
SECTION – 2 BOPE

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

A 13 5/8" 5M BOPE will be utilized to drill this well. Maximum anticipated surface pressure for 13 5/8" 5M BOPE is 1,500 psi. The 13 5/8" BOPE will be tested 250 psi (Low) for 5 minutes and 5000 psi (High) for 10 minutes if isolated by test plug or 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Pressure test conductor, surface, and intermediate casing(s) to 1500 psi for 30 minutes. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per week. Pipe rams will be activated daily and blind rams shall be activated each trip or at least weekly. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE.

		BHP	MASP
13 5/8" 5M BOPE	7,066' TVD	3,038	1,483

13-5/8" BOPE



SECTION – 3 Casing

Bit Program

26" Conductor Hole = Surface to 120'
17 1/2" Surface Hole = 120' to 1,000'
12 1/4" Intermediate Hole = 1,000' to 7,100'
8 3/4" Curve/Lateral = 7,100' MD to 19,059' MD

Casing Program – all casing stings are new casing

Type	Casing & Hole Size	Weight	Grade	Coupling	Setting Depth (MD)	Comments
Conductor	20" (26")	94 ppf	J55	BT&C	0' - 120'	New casing. Conductor Casing maybe preset. Will be cemented to surface
Surface	13-3/8" (17-1/2")	54.5 ppf	J-55	BT&C	0' – 1,000'	New Casing. Surface Casing maybe preset
Intermediate	9-5/8" (12-1/4")	40 ppf	P110HC	BT&C	0' – 7,100'	New Casing. Two Stage Cement to surface
Production	5-1/2" (8-3/4")	20 ppf	P-110	GBCD	7,100' – 19,059'	New Casing – Single Stage Cement to overlap previous casing shoe

Design Factor Table

Conductor Casing Design - Evacuation/Casing Test (collaspe & burst), 100k overpull (tension)

	Collapse	Burst	Tension
Min Safety Factors	1.125	1.100	1.400

	Size	Weight	Grade	Conn	Collapse	Burst	Tension (Pipe Body)	Tension (Connection)	Notes
Conductor	20	94	J55	BTC	520	2,110	1,480,000	1,402,000	
					80% of Burst =	1,688			

	Casing Depth	MW in	MW out	Pres in	Pres out	SF	
Collapse	120	0	8.33	0	52	10.00	
Burst	120	8.3	0	1500	0	1.41	1500psi casing test
		Mud Wt	Air Wt	Bouy Wt	BW +100k		
Tension (Pipe Body)	120	9.0	11,280	9,730	109,730	13.49	100k over pull
Tension (Connection)	120	9.0	11,280	9,730	109,730	12.78	
	BF=1- (MW)/65.5 =	0.8626					

Surface Casing Design - Evacuation/Casing Test (collaspe & burst), 100k overpull (tension)

	Collapse	Burst	Tension
Min Safety Factors	1.125	1.100	1.400

	Size	Weight	Grade	Conn	Collapse	Burst	Tension (Pipe Body)	Tension (Connection)	Notes
Surface	13.375	54	K55	BTC	1,130	2,740	853,000	909,000	
					80% of Burst =	2,192			

	Casing Depth	MW in	MW out	Pres in	Pres out	SF	
Collapse	1000	0	15.80	0	822	1.38	Full evacuation with 15.8ppg cement in the annulus
Burst	1000	9.0	0	1500	0	1.83	1500psi casing test
		Mud Wt	Air Wt	Bouy Wt	BW +100k		
Tension (Pipe Body)	1000	9.0	54,000	46,580	146,580	5.82	100k over pull
Tension (Connection)	1000	9.0	54,000	46,580	146,580	6.20	
	BF=1- (MW)/65.5 =	0.8626					

Intermediate Casing Design - Evacuation/Casing Test (collaspe & burst), 100k overpull (tension)

	Collapse	Burst	Tension
Min Safety Factors	1.125	1.100	1.400

	Size	Weight	Grade	Conn	Collapse	Burst	Tension (Pipe Body)	Tension (Connection)	Notes
Intermediate	9.625	40	P110HC	BTC	4,230	7,910	1,260,000	1,266,000	
					80% of Burst =	6,328			

	Casing Depth TVD	MW in	MW out	Pres in	Pres out	SF	
Collapse	6749	0.00	10.00	0	3509	1.21	Full evacuation with 10 ppg mud outside
Burst	6749	9.0	0	1500	0	5.27	1500 psi casing test
		Mud Wt	Air Wt	Bouy Wt	BW +100k		
Tension (Pipe Body)	6749	9.0	269,960	232,866	332,866	3.79	100k over pull
Tension (Connection)	6749	9.0	269,960	232,866	332,866	3.80	
	BF=1- (MW)/65.5 =	0.8626					

Production Casing Design - Evacuation/Casing Test (collaspe & burst), 100k overpull (tension)

	Collapse	Burst	Tension
Min Safety Factors	1.125	1.100	1.400

	Size	Weight	Grade	Conn	Collapse	Burst	Tension (Pipe Body)	Tension (Connection)	Notes
Production	5.5	20	P110	GBCD	13,300	10,640	546,000	568,000	
					80% of Burst =	8,512			

	Casing Depth TVD	MW in	MW out	Pres in	Pres out	SF	
Collapse	7066	0.00	13.30	0	4887	2.72	Full evacuation with 13.3 ppg cement in the annulus
Burst	7066	9.0	0	1500	0	7.09	1500 psi casing test
		Mud Wt	Air Wt	Bouy Wt	BW +100k		
Tension (Pipe Body)	7066	9.0	141,320	121,902	221,902	2.46	100k over pull
Tension (Connection)	7066	9.0	141,320	121,902	221,902	2.56	
	BF=1-(MW)/65.5 =	0.8626					

All casing strings including conductor casing will be tested to .22 psi per foot of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield.

Minimum casing design factors used:

Collapse -	1.125
Burst -	1.1
Jt. Strength -	1.40

Surface Casing – Centralizers shall be placed on the first 4 (bottom 4) joints of casing (1 per joint) and 1 every 3rd joint to surface.

Intermediate casing – Centralizers shall be placed on first 3 (bottom 3) joints of casing (1 per joint) and 1 every 3rd joint to surface. DV tool will be placed at +/- 2,400' MD.

Production Liner String – Centralizers will be placed at discretion in lateral to achieve adequate standoff for quality cement job. A toe sleeve will be placed 2 joints above shoe track.

NOTE: Use of DV tool would be considered by operator as back up in case we experience heavy losses and are concerned with cement not reaching surface. If major losses are not encountered we will not run DV tool.

*Surface casing maybe preset with a preset rig.

SECTION – 4 Cement

The proposed cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported.

- Pea Gravel or other material shall not be used to fill up around the conductor casing or surface casing in the event cement fall back occurs.
- The conductor casing and surface casing shall in all cases be cemented back to surface. In the event cement does not circulate to surface or fall back of the cement column occurs, remedial cementing shall be done to cement the casing back to surface. No more than the top 100' will be remediated with 1" line if fall back occurs. Anything more than 100' will require plan approval to remediate.

- Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

- Cement Volumes may be adjusted based on hole conditions.

Conductor Casing Single Stage Job – (0-120'MD/TVD): 26" hole x 20" casing – 100% XS

Cement will be circulated to surface with 367 sx of Class G cement, 15.8 ppg, 1.174 ft3/sk, 94 lbm/sk, 2% CaCl, 0.1250 lbm/sk Poly E Flake, 5.13 Gal/sk fresh water. Volume 430 ft3

Surface Casing Single Stage Job – (0-1,000' MD/ 996'TVD): 17-1/2" hole x 13-3/8" casing – 50% XS

Cement will be circulated to surface with 753 sx of Class G cement, 15.8 ppg, 1.174 ft3/sk, 94 lbm/sk, 2% CaCl, 0.1250 lbm/sk Poly E Flake, 5.13 Gal/sk fresh water. Volume 884 ft3

Intermediate Casing – Two Stage (0-7,100'MD/6,749'TVD): 12-1/4" (1,000' to 7,100') hole x 9-5/8" casing with DV tool @ +/- 2,400' MD. Use of DV tool would be considered by operator as back up in case we experience heavy losses and are concerned with cement not reaching surface.

Cement will be circulated to surface. Stage 1 Lead – 1075 sx of Poz 12.3 ppg, 1.958 ft3/sk, 61.10 lbm/sk, 0.1250 lbm/sk Poly E Flake, 10.42 Gal/sk fresh water. Tail – 220 sx 15.8 ppg, 1.147 ft3/sk, 94 lbm/sk, 0.10% Halad, 0.150 lbm/sk Poly E Flake, 4.96 Gal/sk freshwater. Stage 2 Lead – 1225 sx of Poz 12.3 ppg, 2.005 ft3/sk, 61.10 lbm/sk, 2% CaCl, 0.1250 lbm/sk Poly E Flake, 10.74 Gal/sk. Tail – 270 sx 15.8 ppg, 1.147 ft3/sk, 94 lbm/sk, 4.99 Gal/sk. Volume 5,079 ft3

Production Casing – Single Stage Conventional Cement (0' - 19,059' MD/ 7,066' TVD) 8-3/4" hole x 5-1/2" casing:

Estimated top of cement at 6,400' MD. 1650 sx of Class G cement, 15.8 ppg, 1.174 ft3/sk, 94 lbm/sk, 2% CaCl, 0.1250 lbm/sk Poly E Flake, 5.13 Gal/sk fresh water Volume 1921 ft3

Cement calculations are used for volume estimation. Well conditions will dictate final cement job design.

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected.

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

SECTION – 5 Circulating Medium (Mud Program)

CLOSED-LOOP SYSTEM DESIGN PLAN

The closed-loop system will consist of a series of temporary above-ground storage tanks and/or haul-off bins suitable for holding the cuttings and fluids from drilling operations. The closed- loop system will not entail temporary pits, below-grade storage tanks, below-grade sumps, or drying pads.

Design considerations include:

- The closed-loop system will be signed in accordance with 19.15.17.11 NMAC.
- The closed-loop system storage tanks will be of adequate volume to ensure confinement of all fluids and provide sufficient freeboard to prevent uncontrolled releases.

- Topsoil will be salvaged and stored for use in reclamation activities.

CLOSED-LOOP SYSTEM OPERATING & MAINTENANCE PLAN

The closed-loop system will be operated and maintained to contain liquids and solids; minimize the amount of drilling fluids and cuttings that require disposal; maximize the amount of drilling fluid recycled and reused in the drilling process; isolate drilling wastes from the environment; prevent contamination of fresh water; and protect public health and the environment.

Operation and maintenance considerations include:

- Fluid levels will be maintained to provide sufficient freeboard to prevent over-topping.
- Visual inspections will be conducted on a daily basis to identify any potential leaks and to ensure that the closed-loop system storage tanks have sufficient freeboard to prevent over-topping.
- Only drilling fluids or cuttings intrinsic to, used by, or generated from, drilling operations will be stored in the closed-loop system storage tanks. Hazardous waste, miscellaneous solid waste, and/or debris will not be stored in the storage tanks.
- The OCD District Office will be notified within 48 hours of discovery of a leak in the closed-loop drilling system. If a leak is discovered, all liquid will be removed within 48 hours and the damage repaired.

CLOSED-LOOP SYSTEM CLOSURE PLAN

The closed-loop system will be closed in accordance with 19.15.17.13 NMAC. Closure

considerations include:

- Drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical.
- Residual fluids will be pulled from the storage tanks, mixed with saw dust or similar absorbent material, and disposed of at Industrial Envirotech, Inc. waste disposal facilities.
- Remaining cuttings or sludges will be vacuumed from the storage tanks and disposed of at the Envirotech, Inc and/or Industrial Ecosystem, Inc. waste disposal facilities.
- Storage tanks will be removed from the well location during the rig move.
- The well pad will be reclaimed and seeded in accordance with subsections G, Hand I of 19.15.17.13NMAC.

Mud Tables

Interval (MD)	Hole Section	Hole Size	Type	MW	FL	PV	YP	PH	REMARKS
0'-120'	Conductor	26"	FW/Gel	8.4	NC	8	12	9.0	Spud Mud
0'-1,000'	Surface	17-1/2"	FW/Gel	8.4	NC	8	12	9.0	Spud Mud
1,000'-7,100'	Intermediate	12-1/4"	LSND	8.6-10.0	<8	4-6	12-15	10.0	Fresh Water
7,100'-19,059'	Production	8-3/4"	LSND	9.0-13.0	<8	14-20	8-14	11.0	Fresh Water

Contingency

Interval (MD)	Hole Section	Hole Size	Type	MW	FL	PV	YP	PH	REMARKS
1,000'-7,100'	Intermediate	12-1/4"	Aerated Fluid	7.5-9.0	<8	4-6	12-15	10.0	Fresh water w/ air
7,100'-19,059'	Production	8-3/4"	OBM	9.0-13.0	<8	14-20	8-14	11.0	OBM

Sufficient weighting material will be on hand to weight mud up to 1 PPG over, if required.

The formula for weight up with barite is listed below:
Sacks of Barite per 100 bbl of mud = 1470 x (W2 – W1) ÷ (35 – W2)

Where; W1 = current mud weight

W2 = new mud weight

Sacks = 1470 x (10 – 9)/ (35-10) = 59 sx * 5 (500bbls minimum) = 294sx

Pason Pit Volume Totalizer (PVT) equipment (or equilvant) will be on each pit to monitor pit levels. A trip tank equipped with a Pason PVT will be used to monitor trip volumes.

A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals, including fresh water and oil-based operations. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of as outlined is surface use plane location will be lined in accordance with the Surface Use Plan of Operations.

SECTION – 6 Test, Logging & Coring

Testing: None planned.

Logging:

Azimuthal and Radial GR – Drilling curve and lateral

Directional from surface shoe to TD

Mud Logging:

Geologist & a manned mud-logging unit will be operational @ +/- 3,000' to TD of pilot and lateral.

Gas detecting equipment shall be installed in the mud return system for exploratory wells and hydrocarbon gas shall be monitored for pore pressue changes from base of surface casing to TD.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume.

Coring: None

Cement Bond Log:

BP will run a cement bond log (CBL) if cement returns are not observed on the surface and first intermediate casing strings. The CBL will confirm the quality of cement and the actual top of cement.

SECTION – 7 Pressure

Normal to subnormal pressure gradient to TD.

MASP and casing design parameters determined using 0.43 psi/ft.

Maximum expected BHP @ 7,066' TVD: 3,038 psi

Maximum expected BHT @ 7,066' TVD: ~200^{O} F

Possible lost circulation in the Fruitland Coal to Cliffhouse (~3,000' to 5,000'). Lost circulation has been successfully mitigated with lost circulation materials in concentrations of up to 30% by volume. Intermediate casing will be set through this interval to +/- 7,100'.

No hydrogen sulfide gas is anticipated, however, if H_2S is encountered, the guidelines in Onshore Order No. 6 will be followed.

Directional Plans: Horizontal directional well, directional plans attached. Lateral KOP subject to change based on mud log evaluation.

Completion:

- **Pressure test**
  - Pressure test production casing to allowable frac pressure or as per BLM requirements
- **Stimulation**
  - well will be stimulated with approximately 35,000,000 pound of proppant in 775,000 bbls of water; the number of stages and the amount of proppant will be adjusted based on the petrophysical properties of the target zone
  - stages will be isolated with plugs
  - plugs will be drilled out
  - flowback well

- **Turn well to production**
  - It is intended to produce the well up the casing, without installing tubing, for at least 60 days or until tubing is needed to unload the well

Timing: BP plans to drill this well in March, 2018
It is anticipated that the drilling of this well will take approximately 30 days.

It is anticipated that completion operations will begin immediately after the well has been drilled depending on stimulation company availability.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

X Original
☐ Amended

Operator & OGRID No.: BP America Production Company -778
Date: July 14, 2017

Reason for Amendment:_____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
NEBU 605 Com 2H	Pending	Sec 11 T31N R07W	458 FSL 796 FEL	0	N/A	

Gathering System and Pipeline Notification

Wells will be connected to a production facility after flowback operations are complete. The gas produced from the production facility is dedicated to a 3rd party and will be produced to the WFS owned gathering system in San Juan County, New Mexico. It will require 2964' of pipeline to connect the facility to WFS gathering system. Gas from these wells will be processed at the Williams Milagro Processing Plant located in San Juan County, NM. The Williams Milagro plant is located at Sec. 12, T 29N, R 11W, San Juan, County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, during cleanout/ drillout and flowback operations, the well(s) will be produced through temporary production tank(s), while monitoring the fluids and sand content.
Gas will be directed to the sales line, as this is a dry gas reservoir, and production facilities will be installed prior to completion. If at any time, gas is non-pipeline quality, then a small amount of gas might be flared or vented.
Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on the BP gathering system at that time. Based on current information, it is BP's belief the system can take this gas upon completion of the well(s).

Operator Name: BP AMERICA PRODUCTION COMPANY

Well Name: NEBU 605 COM **Well Number:** 2H

Section 6 - Construction Materials

Construction Materials description: All construction materials for access road improvements will consist of native borrow and subsoil accumulated on site. If additional fill or surfacing material is required, it will be imported from: Crossfire's Piedra Gravel Pit. The additional fill material will be hauled in by trucks over existing access roads to the area. The well pad will be constructed from the earthen materials present on-site. Driving surfaces on the well pad will be capped with gravel from Crossfire's Piedra Gravel Pit.

Construction Materials source location attachment:

NEBU_605_COM_CLP_CSP_FINAL_06-22-2017.pdf

NEBU_BP_605_PAD_Construction_Material_Exhibit_6_06-20-2017.pdf

Section 7 - Methods for Handling Waste

Waste type: COMPLETIONS/STIMULATION

Waste content description: The water-based solution that flows back to the surface during and after completion operations will be placed in storage tanks on location and pumped to one of BP owned water injection well - NEBU Middle Mesa SWD #2 (30-045-28553) or NEBU Middle Mesa SWD #1 (30-045-27341) Flowback solids will be disposed of at an approved E&P disposal site: Industrial Ecosystems inc., #49 CR 3150, Aztec, NM 87410

Amount of waste: 150000 barrels

Waste disposal frequency : Daily

Safe containment description: Above-ground storage tanks (ASTs); berm for secondary containment

Safe containmant attachment:

Waste disposal type: ON-LEASE INJECTION **Disposal location ownership:** FEDERAL

Disposal type description:

Disposal location description: BP owned injection well/facility located within NEBU boundaries; in case there are any issues with the water transfer line, produced water might be trucked from location to the water disposal wells - NEBU Middle Mesa SWD #2 (30-045-28553) or NEBU Middle Mesa SWD #1 (30-045-27341) or NEBU Pump Mesa SWD #1 (30-045-27340)

Waste type: GARBAGE

Waste content description: Garbage, trash, and other waste materials will be collected in a portable, self-contained and fully-enclosed container during drilling and completion operations. The accumulated trash will be removed, as needed, and disposed of, at an approved landfill. No trash will be buried or burned on location. Immediately after removal of the drilling and service rigs, all debris and other waste materials not contained in the trash container will be cleaned up and removed from the well location.

Amount of waste: 1000

Waste disposal frequency : Weekly

Safe containment description: Garbage, trash, and other waste materials will be collected in a portable, self-contained and fully-enclosed container during drilling and completion operations.

Safe containmant attachment:

Waste disposal type: OTHER **Disposal location ownership:** PRIVATE

Disposal type description: LANDFILL

Operator Name: BP AMERICA PRODUCTION COMPANY

Well Name: NEBU 605 COM **Well Number:** 2H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: STIMULATION **Water source type:** FRESH WATER LAKE

Describe type:

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: FEDERAL

Water source transport method: PIPELINE

Source transportation land ownership: FEDERAL

Water source volume (barrels): 775060 **Source volume (acre-feet):** 99.89988

Source volume (gal): 32552520

Water source and transportation map:

NEBU_BP_605_COM_PAD_WATER_TRANSFER_ROUTE_Surface_Ownership_06-20-2017.pdf

Water source comments:

New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment: