

366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 10, 2015

RECEIVED GOD

2015 JUL 13 P 2:39

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV RR #006H (21-25-30)
Lower Avalon Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon Shale. Should you be in agreement that the Lower Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/8/2015
RE: Commercial Determination
PLU CVX JV RR #006H (21-25-30)
Poker Lake Unit (Lower Avalon Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Ross Ranch #006H was drilled in 2012 to a total depth of 13,090' laterally and completed in the Lower Avalon Shale reservoir. The well is producing from perforations 8,183'-13,090'. On test 2/15/2013 the well flowed at the rate of 205 BOPD, 386 MCFD, and 2001 BWPD. This well has an expected recovery of approximately 48 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Ross Ranch #006H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 7/8/2015

Lior: 1004506

1:48:33PM

Project Name : 1-1-2015 NSAI Review For BOPCO, LP
 Partner : All cases
 Case Type : LEASE CASE
 Archive Set : NS0115

As Of Date : 11/01/2012
 Discount Rate (%) : 5.00
 1004506/PLU CVX JV RR/006H/LOW

Lease Name : 1004506/PLU CVX JV RR/006H/LOW
 Reserv Cat. : Proved Producing
 Field : CORRAL CANYON; BONE SPRING, SO
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

Cum Oil (mbbls) : 0.00
 Cum Gas (mmcf) : 0.00
 Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbl)	Wet Gas (MMCF)	Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbl)	Gas (MMCF)	NGL (MGal)
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2013	15.404	204.590	102.234	716.065	13.016	86.387	605.075
2014	3.331	56.216	28.091	190.877	2.814	23.737	161.291
2015	2.270	15.544	7.767	54.405	1.918	6.564	45.972
2016	1.608	10.303	5.149	36.062	1.359	4.351	30.472
2017	1.241	7.944	3.970	27.803	1.048	3.354	23.494
2018	1.012	6.584	3.290	23.042	0.855	2.780	19.471

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	24.865	301.181	150.500	1,048.254	21.011	127.173	885.775
Ult.	24.865	301.181					

Year	Average Price			Net Revenue			
	Oil \$/BBL	Gas \$/MCF	NGL \$/Gal	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	0.00	0.00	0.00	0.000	0.000	0.000	0.000
2013	87.00	3.31	0.75	1,132.457	285.767	453.806	1,872.031
2014	83.35	4.07	0.87	234.567	96.498	140.013	471.077
2015	50.48	2.57	0.44	96.849	16.899	20.148	133.895
2016	55.68	2.89	0.46	75.651	12.588	14.123	102.361
2017	57.02	3.06	0.46	59.781	10.270	10.889	80.940
2018	58.44	3.13	0.46	49.992	8.714	9.024	67.731

Rem	0.00	0.00	0.00	0.000	0.000	0.000	0.000
Total	78.50	3.39	0.73	1,649.297	430.736	648.002	2,728.036

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	0.000	0.000	5,564.612	0.000	-5,564.612	-5,564.612	-5,564.612	-5,564.612
2013	139.949	6.062	0.000	737.638	988.381	-4,576.231	964.221	-4,600.391
2014	35.645	1.524	0.000	572.796	-138.888	-4,715.119	-125.581	-4,725.972
2015	9.875	0.434	0.000	396.834	-273.248	-4,988.366	-239.917	-4,965.888
2016	7.536	0.332	0.000	389.410	-294.916	-5,283.283	-246.573	-5,212.461
2017	5.959	0.262	0.000	386.310	-311.592	-5,594.874	-248.147	-5,460.609
2018	4.987	0.220	0.000	384.649	-322.124	-5,916.998	-244.341	-5,704.950

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	203.951	8.834	5,564.612	2,867.637	-5,916.998	-5,916.998	-5,704.950	-5,704.950

Major Phase : Gas
 Perfs : 0
 Initial Rate : 8.15 mmcf/month
 Abandonment : 0.51 mmcf/month
 Initial Decline : 100.00 % year
 Seg Ratio : 0.05 bbl/mmcf
 Ind Ratio : 0.15

Working Int : 1.00000000
 Revenue Int : 0.84500000
 Disc. Initial Invest. (m\$) : 5,564.612
 Internal ROR (%) : >1000.0
 ROI Investment (disc/undisc) : -0.03 / -0.06
 Years to Payout : 0.00
 Abandonment Date : 12/31/2018

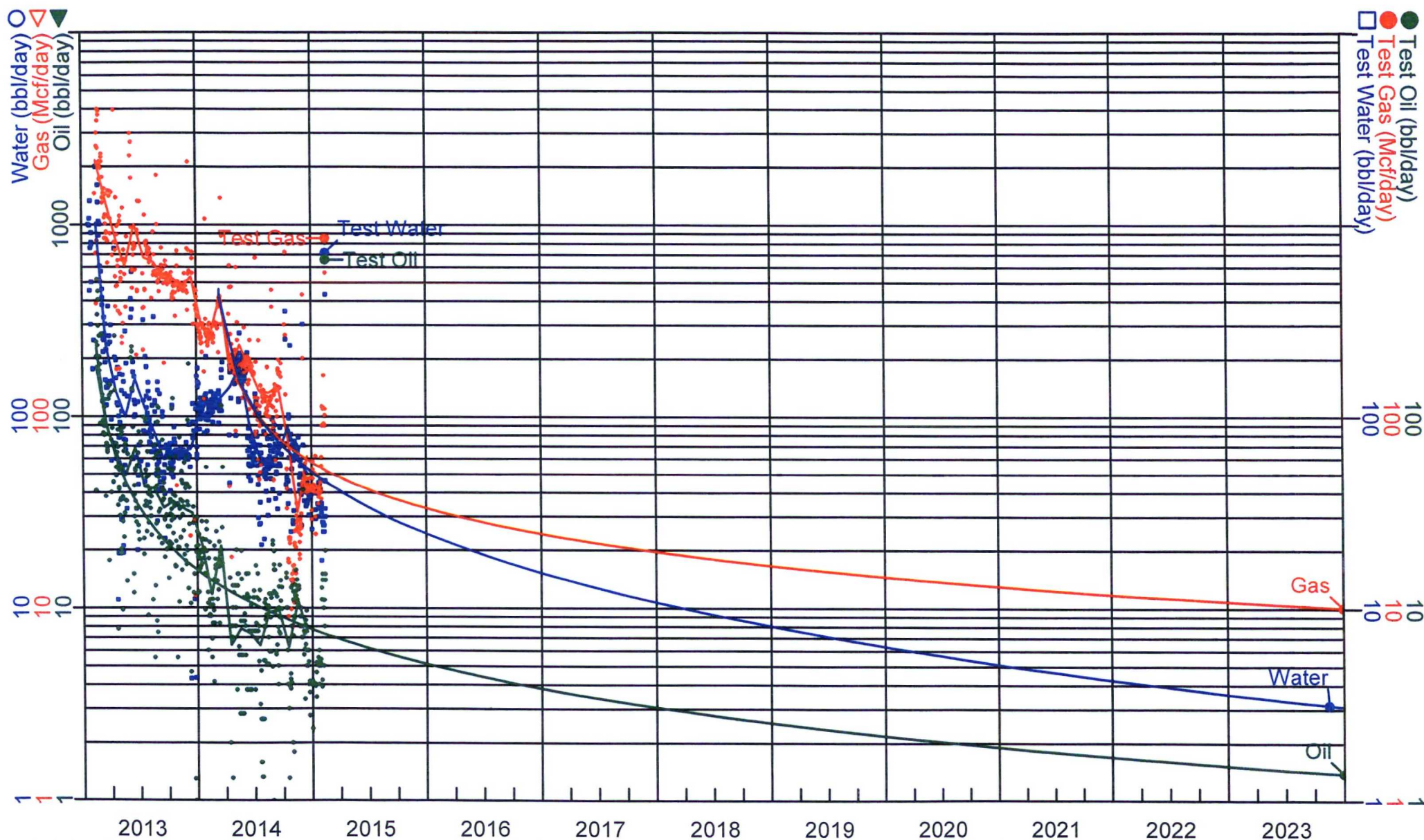
Present Worth Profile (M\$)

5.00% : -5,704.95
 9.00% : -5,573.00
 10.00% : -5,544.23
 12.00% : -5,491.06
 15.00% : -5,420.99
 20.00% : -5,325.54
 30.00% : -5,192.33
 40.00% : -5,109.10
 50.00% : -5,056.35
 60.00% : -5,022.86

Initial 1st Rev. 2nd Rev.
 Working Interest : 1.00000000 0.00000000 0.00000000
 Revenue Interest : 0.84500000 0.00000000 0.00000000
 Rev. Date :

1004506/PLU CVX JV RR/006H/LOW
Oper: BOPCO
Major Phase: Gas

Field: CORRAL CANYON; BONE SPRING, SOUTH
EDDY,NM
ECL Date: 01/25/2024



NS0115 Oil(ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 28,262 bbl
EUR: 28,262 bbl
02/14/2013 - 01/25/2024
Qi: 5,511 / Qact: 4,079
Qf: 42
D: 95.999 / Dmin: 6.000
B: 1.00000

NS0115 Gas(ARPs)
Segment: 1 of 1
Cum: 0 Mcf
Rem: 324,600 Mcf
EUR: 324,600 Mcf
03/12/2014 - 01/25/2024
Qi: 13,004 / Qact: 8,152
Qf: 304
D: 100.000 / Dmin: 6.000
B: 1.40000

NS0115 Water(Formula)
{Gas} x {WGR}
Cum: 0 bbl
Rem: 110,026 bbl
EUR: 110,026 bbl
02/01/2013 - 01/25/2024
Qi: 0 / Qact: 18,003
Qf: 93

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU CVX JV ROSS RANCH #006H _____ FORMATION _____ LOWER AVALON _____
 LOCATION _____ UNIT, _____ 125 _____ FEET FROM _____ NORTH _____ LINE & _____ 400 _____ FEET FROM _____ WEST _____ LINE _____
 SECTION _____ 21 _____ TOWNSHIP _____ 25S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____, NEW MEXICO _____
 SPUD DATE _____ 10/2/2012 _____ COMPLETION DATE _____ 12/17/2012 _____ INITIAL PRODUCTION _____ 12/17/2012 _____
 PERFORATIONS _____ 8183-13090 _____
 BHL: 101' FSL & 389' FWL SEC 21 T25S R30E _____

STIMULATION:

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (2/15/2012): 205 BOPD, 386 MCFPD, 2001 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	160	
Porosity (Φ), %	17.5%	
Water saturation (S_w), %	11%	
Net Thickness (H), ft.	110	
Temperature (T), Fahrenheit	133	
Bottom Hole pressure (P), psia	3,775	
Recovery factor (RF), %	60%	
SHRINKAGE (f_g)	98%	
Recoverable gas, MMCF *(See eq. below)	18,055	

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((43.560 \text{ MCF/ac-ft}) (\text{por}) (1-S_w)(RF)(B_{gi} \text{ scf/mcf})(f_g)(A) (h))/1000 \text{ MCF/MMCF}$ $B_{gi} = 257.15 \text{ scf/rcf}$

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 5/31/2015 20,001 BBL Oil 281,168 MCF GasINITIAL RATE (qi) 428ECONOMIC LIMIT (qi) 10 MCFDHYPERBOLIC DECLINE RATE, dy n = 1.4, d = 99%/yrREMAINING MCF (Q) = 0ULTIMATE RECOVERABLE MMCF 301

(Attach plat showing proration unit and participating area.)

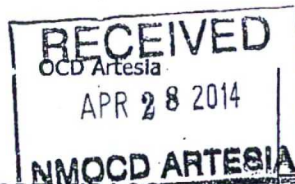
ECONOMIC

GROSS WELL COST \$2,114,553 (to the depth of formation completed)COMPLETION COST \$3,450,059GROSS TOTAL COST \$5,564,612

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-5564.6
2	204.590	1872.0	883.6	964.2
3	56.216	471.1	610.0	-125.6
4	15.544	133.9	407.1	-239.9
5	10.303	102.4	397.3	-246.6
6	7.944	80.9	392.5	-248.1
7	6.584	67.7	389.9	-244.3
8			0.0	
9			0.0	
10			0.0	
REMAINDER			0.0	
TOTAL	301.181	2728.0	3080.4	-5705.0

WELL IS NOT COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____		7. Unit or CA Agreement Name and No. 891000303X	
2. Name of Operator BOPCO LP		8. Lease Name and Well No. PLU ROSS RANCH 21 25 30 USA 1H	
3. Address MIDLAND, TX 79702		9. API Well No. 30-015-40580-00-S1	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface NWNW 125FNL 900FWL At top prod interval reported below NWNW 666FNL 427FWL At total depth SWSW 101FSL 389FWL		10. Field and Pool, or Exploratory CORRAL CANYON	
14. Date Spudded 10/02/2012		15. Date T.D. Reached 10/18/2012	
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 12/17/2012		17. Elevations (DF, KB, RT, GL)* 3241 GL	
18. Total Depth: MD 13090 TVD 8303		19. Plug Back T.D.: MD TVD	
20. Depth Bridge Plug Set: MD TVD			
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CALIPER RESISTIVITY SPECTRALGR		22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)	

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	953		1450		0	
11.000	8.625 J-55	32.0	0	3700		1700		0	
7.875	5.500 P-110	17.0	0	13090		1900		3200	

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	7671	7653						

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	8183	13090	8528 TO 13053		240	OPEN
B)						
C)						
D)						

Depth Interval	Amount and Type of Material
8528 TO 13053	FRAC USING TOTAL 45338 BBLs FLUID, 2378100# PROPANT

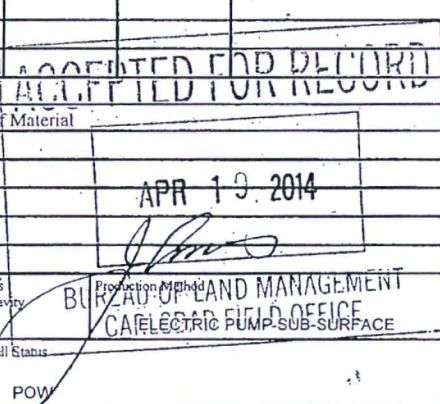
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity
12/13/2012	02/15/2012	24	→	205.0	386.0	2001.0		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status
	SI		→	205	386	2001	1883	POW

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #240974 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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



RECLAMATION
DUE 6-17-13

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)

SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				RUSTLER	1247
				SALADO	1322
				BASE OF SALT	3010
				BELL CANYON	3810
				CHERRY CANYON	4695
				BRUSHY CANYON	5908

32. Additional remarks (include plugging procedure):

Well drilled and completed in 2012. Cannot find record of Form 3160-4 being filed.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1-full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7 Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #240974 Verified by the BLM Well Information System.

For BOPCO LP, sent to the Carlsbad

Committed to AFMSS for processing by JAMES AMOS on 04/12/2014 (14JA1007SE)

Name (please print) TRACIE J CHERRYTitle REGULATORY ANALYST

Signature _____ (Electronic Submission)

Date 04/03/2014

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.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

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 30-015-40580	² Pool Code 13354	³ Pool Name Corral Canyon; Bone Spring, South
⁴ Property Code 313372	⁵ Property Name Poker Lake Unit CVX JV RR	⁶ Well Number 6H
⁷ OGRID No. 260737	⁸ Operator Name BOPCO, LP	⁹ Elevation 3241

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
D	21	25S	30E		125	North	400	West	Eddy

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
M	21	25S	30E		101	South	389	West	Eddy

¹² Dedicated Acres 162.98	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>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.</p> <p>Signature: <i>Tracie J Cherry</i> Date: <i>06/01/14</i></p> <p>Tracie J Cherry Printed Name</p> <p>ticherry@basspet.com E-mail Address</p>			
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p>			
	<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>			
	<p>Certificate Number</p>			

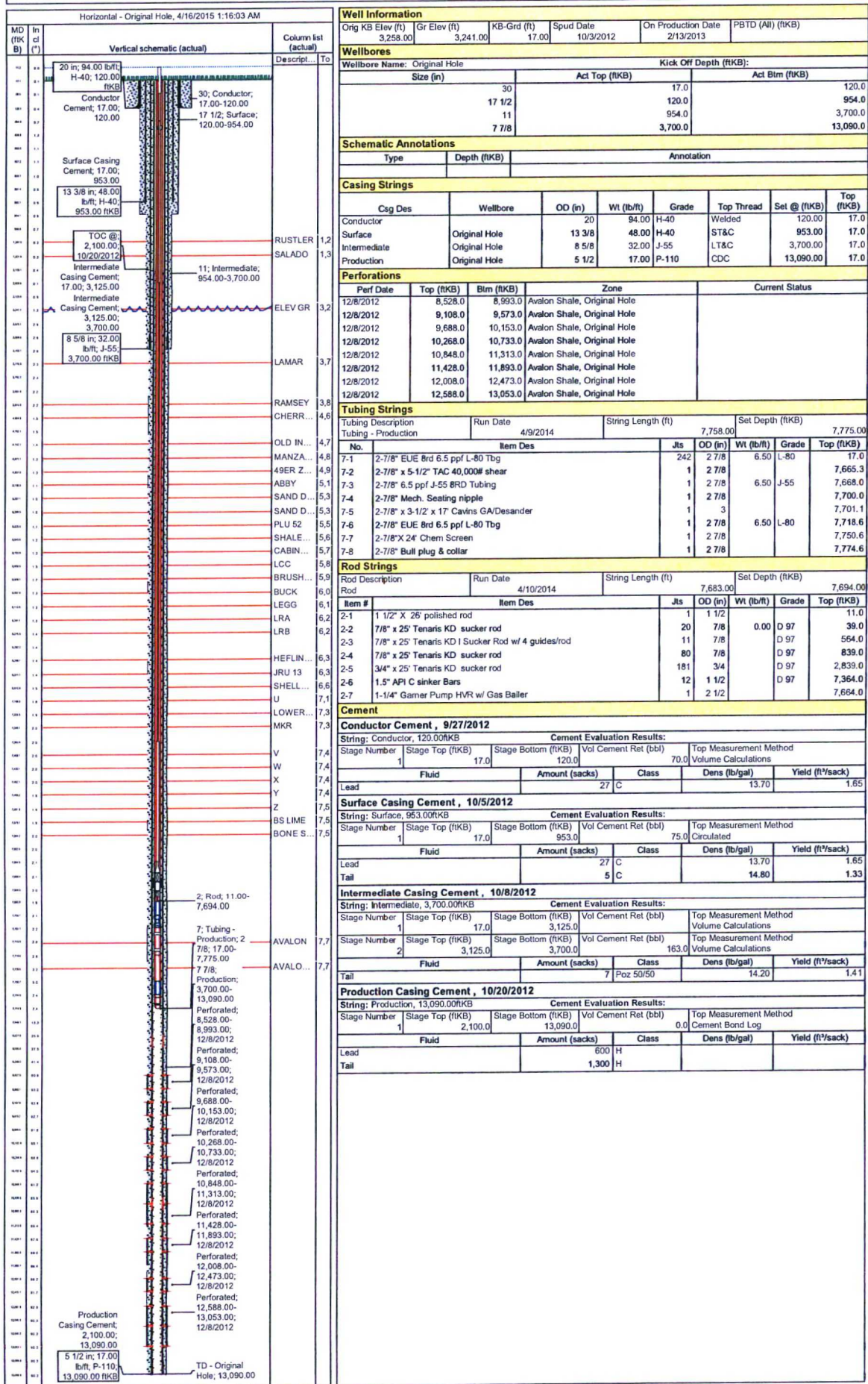
Well Name: POKER LAKE UNIT CVX JV RR #006H (21-25-30)

Well ID: 30-015-40580

Field: Corral Canyon

Sect: 21 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location: 125' FNL & 400' FWL, Sec 21, T25S-R30E





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV RR #006H (21-25-30)

Well ID: 30-015-40580

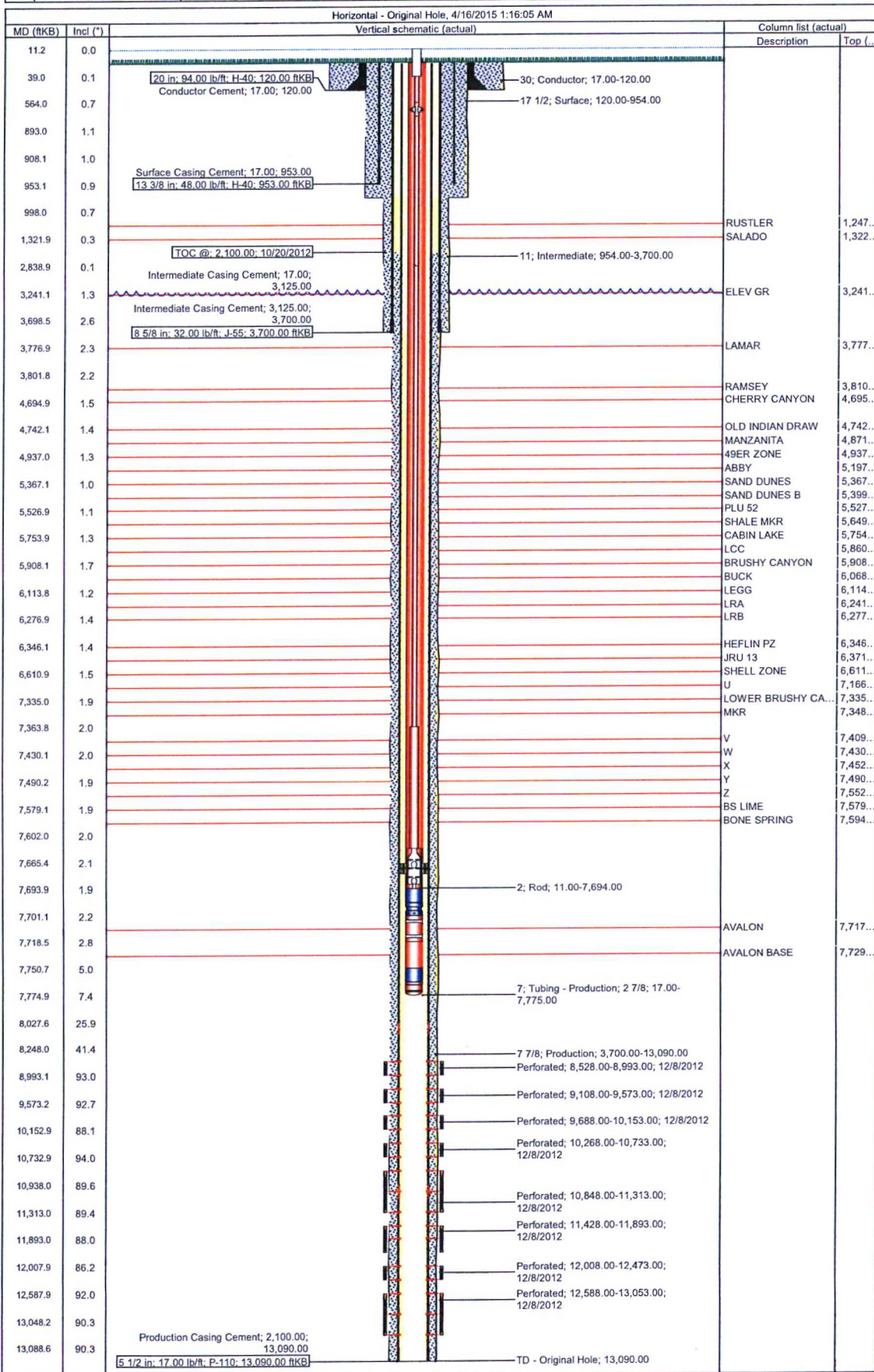
Field: Corral Canyon

Sect: 21 Town: 25S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Completion/Workover	Lift Change	Workover	4/4/2014	4/11/2014



366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 10, 2015

RECEIVED 000

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FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Pierce Canyon #010H (20-24-30)
Upper Avalon Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Upper Avalon Shale. Should you be in agreement that the Upper Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

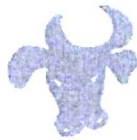
Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/8/2015
RE: Commercial Determination
PLU CVX JV Pierce Canyon #010H (20-24-30)
Poker Lake Unit (Upper Avalon Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Pierce Canyon #010H was drilled in 2012 to a total depth of 12,615' laterally completed in the Upper Avalon Shale reservoir. The well is producing from perforations 7,972'-12,595'. On test 4/9/2012 the well flowed at the rate of 386 BOPD, 3107 MCFD, and 1831 BWPD. This well has an expected recovery of approximately 162 MBOE (13:1 mcf/bbl) from the current completion.

Economic cases were taken from the 1/1/2015 NSAI bankers database, with the capital investment taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The PC #010H will not be a commercial well and should not be incorporated into a participating area.



R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 4/24/2015

Lior: 1004412

2:23:24PM

Project Name : 1-1-2015 NSAI Review For BOPCO, LP

As Of Date : 05/01/2012

Lease Name : 1004412/PLU CVX JV PC/010H/UPP

Partner : All cases

Discount Rate (%) : 5.00

Reserv Cat. : Proved Producing

Case Type : LEASE CASE

Field : PIERCE CROSSING (BONE SPRING), E.

Archive Set : NS0115

1004412/PLU CVX JV PC/010H/UPP

Operator : BOPCO

Cum Oil (Mbbbl) : 0.00

Reservoir : BONE SPRING

Cum Gas (MMcf) : 0.00

Co., State : EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2012	3.315	51.650	50.658	116.035	2.897	44.275	101.414
2013	7.709	201.809	197.934	326.931	6.737	172.995	285.737
2014	3.609	126.731	124.298	205.304	3.154	108.636	179.436
2015	2.186	125.338	122.932	203.048	1.911	107.442	177.464
2016	1.736	105.785	103.754	171.372	1.517	90.681	149.779
2017	1.453	91.845	90.081	148.789	1.269	78.731	130.041
2018	1.262	81.805	80.234	132.523	1.103	70.124	115.826
2019	1.123	74.053	72.631	119.966	0.981	63.480	104.850
2020	1.018	68.039	66.733	110.223	0.890	58.324	96.335
2021	0.930	62.769	61.564	101.686	0.813	53.807	88.873

Rem	9.826	674.329	661.382	1,092.413	8.588	578.048	954.769
Total	34.166	1,664.153	1,632.201	2,728.289	29.861	1,426.544	2,384.525
Ult.	34.166	1,664.153					

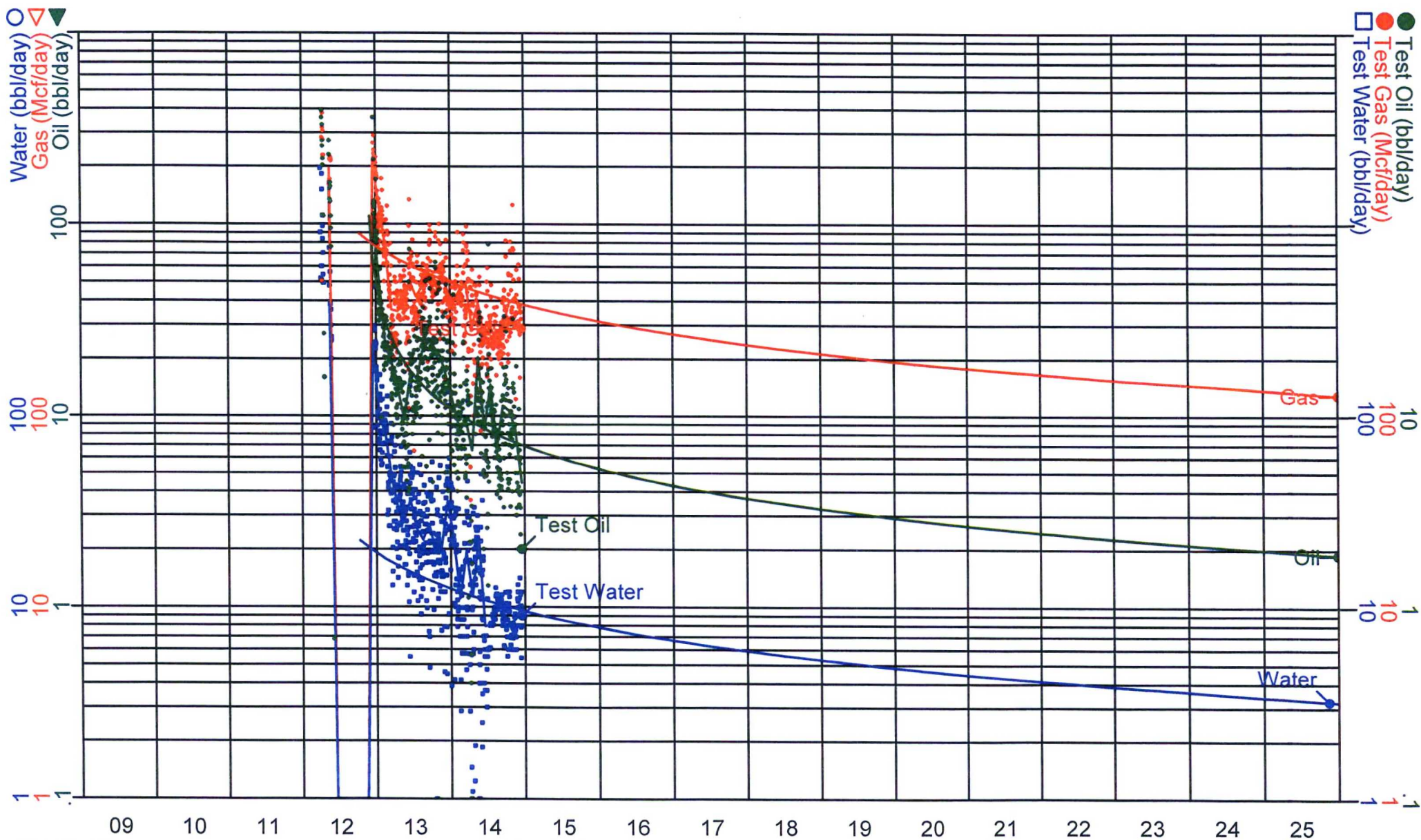
Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	82.06	2.75	0.75	237.75	121.95	76.06	435.75
2013	88.00	3.29	0.75	592.87	568.56	214.30	1,375.74
2014	85.13	3.95	0.81	268.49	429.04	145.86	843.39
2015	45.93	2.55	0.45	87.76	273.99	80.53	442.27
2016	52.03	2.85	0.47	78.93	258.27	70.80	408.00
2017	54.61	3.07	0.47	69.33	241.44	61.47	372.24
2018	56.08	3.16	0.47	61.88	221.50	54.75	338.13
2019	57.19	3.23	0.47	56.13	205.16	49.56	310.86
2020	58.37	3.33	0.47	51.95	194.44	45.54	291.93
2021	59.17	3.47	0.47	48.08	186.55	42.01	276.64
Rem	59.91	4.05	0.47	514.52	2,339.23	451.32	3,305.07
Total	69.24	3.53	0.54	2,067.68	5,040.13	1,292.20	8,400.01

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	32.80	0.81	7,432.89	115.33	-7,146.07	-7,146.07	-7,150.28	-7,150.28
2013	104.88	2.54	0.00	725.29	543.02	-6,603.05	515.37	-6,634.91
2014	65.10	1.56	0.00	232.63	544.09	-6,058.95	491.23	-6,143.68
2015	34.59	0.82	0.00	89.06	317.80	-5,741.15	272.45	-5,871.23
2016	31.93	0.75	0.00	88.42	286.89	-5,454.26	234.25	-5,636.98
2017	29.15	0.69	0.00	87.97	254.43	-5,199.83	197.85	-5,439.13
2018	26.49	0.62	0.00	87.64	223.38	-4,976.45	165.44	-5,273.69
2019	24.36	0.57	0.00	87.39	198.54	-4,777.91	140.04	-5,133.65
2020	22.88	0.54	0.00	87.19	181.32	-4,596.59	121.79	-5,011.86
2021	21.70	0.51	0.00	87.02	167.42	-4,429.17	107.08	-4,904.78
Rem	259.70	6.09	0.00	1,640.66	1,398.61	1,398.61	668.59	668.59
Total	653.59	15.49	7,432.89	3,328.60	-3,030.56	-3,030.56	-4,236.19	-4,236.19

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.87400000	5.00% :	-4,236.19
Initial Rate :	0.00 Mcf/month	Disc. Initial Invest. (m\$) :	7,432.890	9.00% :	-4,803.88
Abandonment :	1,544.50 Mcf/month	Internal ROR (%) :	>1000.0	10.00% :	-4,913.44
Initial Decline :	52.00 % year b = 1.400	ROInvestment (disc/undisc) :	0.43 / 0.59	12.00% :	-5,104.60
Seg Ratio :	0.00 bbl/Mcf	Years to Pavout :	0.00	15.00% :	-5,336.81
End Ratio :	0.01 bbl/Mcf	Abandonment Date :	01/19/2041	20.00% :	-5,624.32
Forecast Start :	10/01/2012			30.00% :	-5,989.95
		Initial	1st Rev.	40.00% :	-6,214.50
		Working Interest :	1.00000000	50.00% :	-6,367.83
		Revenue Interest :	0.87400000	60.00% :	-6,479.91
		Rev. Date :			

1004412/PLU CVX JV PC/010H/UPP
Oper: BOPCO
Major Phase: Gas

Field: PIERCE CROSSING (BONE SPRING), EAST
EDDY, NM
ECL Date: 04/30/2062



NS0115 Oil(ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 37,667 bbl
EUR: 37,667 bbl
11/29/2012 - 04/24/2067
Qi: 3,347 / Qact: 0
Qf: 4
D: 10.000 / Dmin: 6.000
B: 1.40000

NS0115 Gas(ARPs)
Segment: 1 of 1
Cum: 0 Mcf
Rem: 1,904,701 Mcf
EUR: 1,904,701 Mcf
10/09/2012 - 04/24/2067
Qi: 27,039 / Qact: 0
Qf: 304
D: 52.000 / Dmin: 6.000
B: 1.40000

NS0115 Water(Formula)
{Gas} x {WGR}
Cum: 0 bbl
Rem: 64,404 bbl
EUR: 64,404 bbl
05/01/2012 - 04/24/2067
Qi: 0 / Qact: 4,187
Qf: 8

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL PLU CVX JV PIERCE CANYON #010H (20-24-30) FORMATION Upper Avalon
 LOCATION UNIT, 75 FEET FROM NORTH LINE & 1725 FEET FROM EAST LINE
 SECTION 20 TOWNSHIP 24S RANGE 30E COUNTY Eddy NEW MEXICO
 SPUD DATE 1/3/2012 COMPLETION DATE 3/23/2012 INITIAL PRODUCTION 4/8/2012
 PERFORATIONS 7972-12595
 BHL: 100' FSL & 1980' FEL SEC 20 T24S R30E
 STIMULATION:

ACID

FRACTURE See Attached

POTENTIAL (4/9/2012): 386 BOPD, 3107 MCFPD, 1831 BWPD

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	<u>160</u>	<u></u>
Porosity (Φ), %	<u>15%</u>	<u></u>
Water saturation (Sw), %	<u>17%</u>	<u></u>
Net Thickness (H), ft.	<u>238</u>	<u></u>
Temperature (T), Fahrenheit	<u>150</u>	<u></u>
Bottom Hole pressure (P), psia	<u>3,728</u>	<u></u>
Recovery factor (RF), %	<u>60%</u>	<u></u>
SHRINKAGE (fg)	<u>98%</u>	<u></u>
Recoverable gas, BCF *(See eq. below)	<u>47.8</u>	<u></u>

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((43.560 \text{ MCF/ac-ft}) (\text{por}) (1-S_w)(RF)(B_{gi} \text{ scf/mcf})(f_g)(A) (h))/1000 \text{ MCF/MMCF}$ Bgi = 259.00 SCF/RCF

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 12/31/2014 14,630 BBL Oil 381,660 MCF Gas

INITIAL RATE (qi) 889 mcf/d

ECONOMIC LIMIT (ql) 10 mcf/d

HYPERBOLIC DECLINE RATE, dy n = 1.4, d = 52%/yr

REMAINING MCF (Q) = 0

ULTIMATE RECOVERABLE MCF 1,886,654

(Attach plot showing proration unit and participating area.)

ECONOMIC

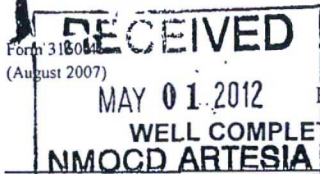
GROSS WELL COST \$2,973,156 (to the depth of formation completed)

COMPLETION COST \$4,459,734

GROSS TOTAL COST \$7,432,890

YEAR	GROSS GAS MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	51.650	435.8	148.9	-7150.3
2	201.809	1375.7	832.7	515.4
3	126.731	843.4	299.3	491.2
4	125.338	442.3	124.5	272.5
5	105.785	408.0	121.1	234.3
6	91.845	372.2	117.8	197.9
7	81.805	338.1	114.8	165.4
8	74.053	310.9	112.3	140.0
9	68.039	291.9	110.6	121.8
10	62.769	276.6	109.2	107.1
REMAINDER	674.329	3305.1	1906.5	668.6
TOTAL	1664.153	8400.0	3997.7	-4236.2

WELL IS NOT COMMERCIAL



OCD Artesia

Form 3180-10
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM028601a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
891000303X2. Name of Operator
CHESAPEAKE OPERATING INC Contact: ERIN D CARSON
E-Mail: erin.carson@chk.com8. Lease Name and Well No
PLU PIERCE CANYON 20 24 30 USA 1H3. Address
OKLAHOMA CITY, OK 73154-04963a. Phone No (include area code)
Ph: 405-935-28969. API Well No.
30-015-39692-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NWNE 75FNL 1725FEL

At top prod interval reported below NWNE 555FNL 1730FEL

At total depth SWSE 108FSL 1986FEL

10. Field and Pool, or Exploratory
WILDCAT11. Sec, T, R., M., or Block and Survey
or Area Sec 20 T24S R30E Mer NMP12. County or Parish
EDDY13. State
NM14. Date Spudded
01/03/201215. Date T.D. Reached
01/23/201216. Date Completed
☐ D & A ☒ Ready to Prod.
03/23/201217. Elevations (DF, KB, RT, GL)*
3272 GL18. Total Depth: MD
TVD 12615
792219. Plug Back T.D. MD
TVD 12524
783120. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
3272 GL22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	575		800			
11.000	8.625 J-55	32.0	0	3665		1850			
7.875	5.500 L-80	20.0	0	12615	4479	1960			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf Status
A) 1ST BONE SPRING	7972	12595	7972 TO 12575			OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
7972 TO 12575	CLEAN FLUID-64,224 GAL, ACID-30,000 GAL, PROPPANT-2,900,935 LBS

RECLAMATION
DUE 9-23-12

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
04/08/2012	04/09/2012	24	→	386.0	3107.0	1831.0	0.9	49.00	FLOW FROM WELL
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
48/64	SI	→	→	386	3107	1831	5665	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
	SI	→	→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #135673 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

28b Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

29 Disposition of Gas(Sold, used for fuel, vented, etc.)

SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas Depth
				RUSTLER	436
				TOP SALT	791
				BASE OF SALT	3412
				BELL CANYON	3664
				CHERRY CANYON	4590
				BRUSHY CANYON	5846

32. Additional remarks (include plugging procedure).

CONFIDENTIAL

LOGS SENT VIA UPS OVERNIGHT

(CHK PN 640123)

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions).

Electronic Submission #135673 Verified by the BLM Well Information System.
For CHESAPEAKE OPERATING INC, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 04/19/2012 (12KMS1663SE)

Name (please print) ERIN D CARSON

Title REGULATORY TECHNICIAN

Signature (Electronic Submission)

Date 04/18/2012

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

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

RECEIVED

APR 20 2012

Form C-102

Revised July 18, 2010

DISTRICT I

1825 N. French Dr., Hobbs, NM 88240

DISTRICT II

1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1820 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

NMOCD ARTESIA

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

"As Drilled"

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-39692	Pool Code 96473	Pool Name Pierce Crossing; B.S. EAST
Property Code 38938	Property Name PLU PIERCE CANYON 20 24 30 USA	Well Number 1H
OCRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3272'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	20	24 S	30 E		75	NORTH	1725	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	24 S	30 E		100	SOUTH	1980	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			NSL-6486-A

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

<p>SURFACE LOCATION Lat - N 32.21021755' Long - W 103.9004616' NMSPCE- N 440480.804 E 675216.069 (NAD-83) Lat - N 32.21009439' Long - W 103.89997555' NMSPCE- N 440421.980 E 634031.948 (NAD-27)</p>		<p>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.</p> <p><i>Bryan Arrant</i> 04/17/2012 Signature Date Bryan Arrant Printed Name bryan.arrant@chk.com Email Address</p>
<p>AS DRILLED LAND PLAT</p> <p>PROPOSED BOTTOM HOLE LOCATION Lat - N 32.1961577' Long - W 103.9013241' NMSPCE- N 435364.993 E 674969.871 (NAD-83) Lat - N 32.19603443' Long - W 103.90083858' NMSPCE- N 435306.278 E 633785.599 (NAD-27)</p>		<p>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.</p> <p>APR 12, 2012 Date Surveyed Signature of Gary L. Jones Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVYS 24819</p>

Actual Bottom Hole Location
108' FSL & 1986' FEL



Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

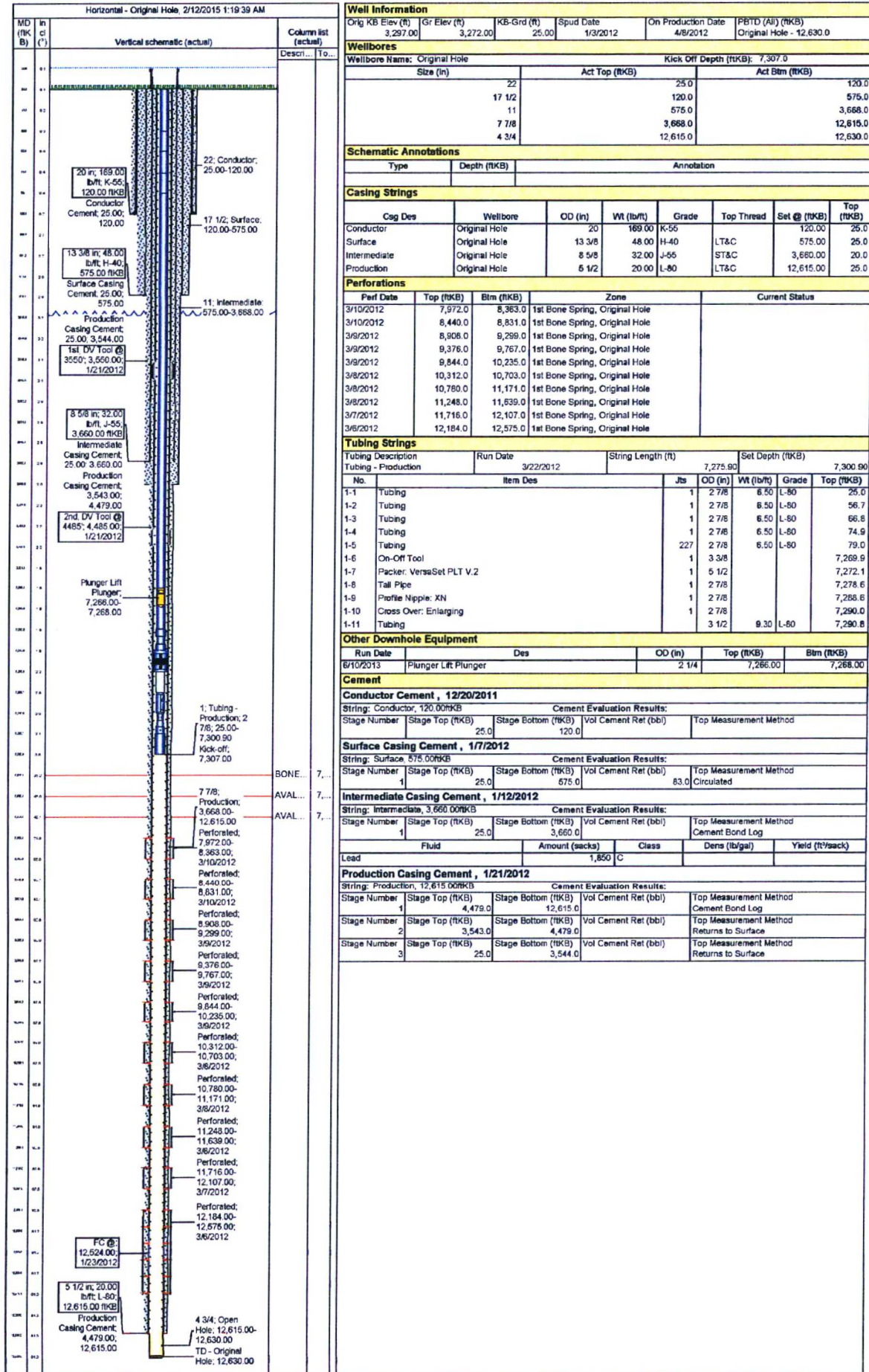
Well Name: POKER LAKE UNIT CVX JV PC #010H (20-24-30)

Well ID: 30-015-39692

Field: Wildcat - Bone Spring

Sect: 20 Town: 24S Rng: 30E County: Eddy State: New Mexico

Surface Location: 75° FNL & 1725° FEL, Sec 20, T24S-R30E





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV PC #010H (20-24-30)

Well ID: 30-015-39692

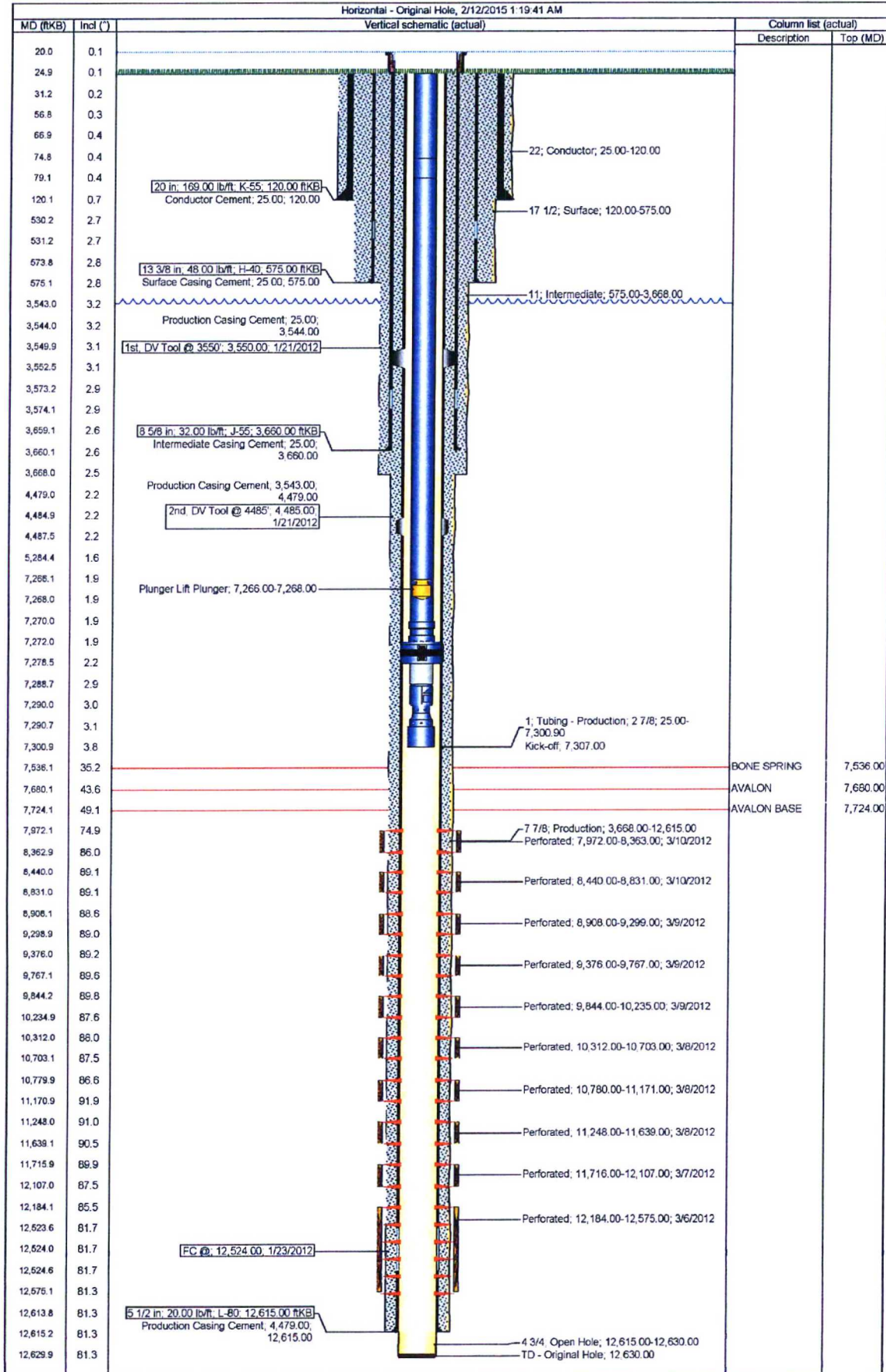
Field: Wildcat - Bone Spring

Sect: 20 Town: 24S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Maintenance	Service Call		12/2/2014	12/3/2014



3660

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 10, 2015

RECEIVED OOD

2015 JUL 13 P 2:40

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Remuda Basin #002H (32-23-30)
Lower Avalon Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon Shale. Should you be in agreement that the Lower Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____

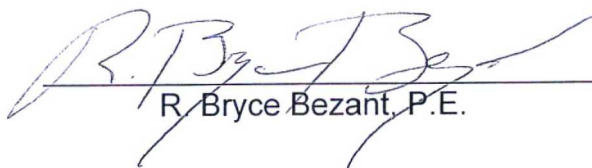


INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/8/2015
RE: Commercial Determination
PLU CVX JV Remuda Basin #002H (32-23-30)
Poker Lake Unit (Lower Avalon Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Remuda Basin #002H was drilled in 2012 to a total depth of 12,950' laterally completed in the Lower Avalon Shale reservoir. The well is producing from perforations 8,408'-12,827'. On test 9/21/2012 the well flowed at the rate of 324 BOPD, 1500 MCFD, and 1301 BWPD. This well has an expected recovery of approximately 70 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Remuda Basin #002H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 1/28/2015

Lior: 1004801

2:25:54PM

Project Name : commercial determination

Partner : All cases

Case Type : LEASE CASE

Archive Set : NS0714

Cum Oil (Mbbbl) : 0.00

Cum Gas (MMcf) : 0.00

As Of Date : 05/01/2012

Discount Rate (%) : 5.00

1004801/PLU CVX JV RB/002H/LOW

Lease Name : 1004801/PLU CVX JV RB/002H/LOW

Reserv Cat : Proved Producing

Field : FORTY NINER RIDGE; BONE SPRING

Operator : BOPCO

Reservoir : LOWER AVALON

Co., State : EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2012	6.517	47.458	24.204	161.357	5.696	21.154	141.026
2013	6.686	92.440	47.144	297.465	5.844	41.204	259.984
2014	3.614	55.031	28.066	187.105	3.158	24.529	163.530
2015	2.393	40.498	20.654	137.692	2.092	18.051	120.342
2016	1.791	31.249	15.937	106.245	1.566	13.929	92.858
2017	1.426	25.336	12.921	86.143	1.246	11.293	75.289
2018	1.187	21.354	10.891	72.604	1.037	9.518	63.456
2019	1.017	18.456	9.413	62.750	0.889	8.227	54.844
2020	0.892	16.293	8.310	55.398	0.779	7.263	48.418
2021	0.790	14.514	7.402	49.347	0.691	6.469	43.129

Rem	6.408	118.758	60.566	403.802	5.600	52.935	352.923
Total	32.721	481.386	245.507	1,619.907	28.598	214.573	1,415.799
Ult.	32.721	481.386					

Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	82.49	2.69	0.75	469.84	56.91	105.77	632.52
2013	87.15	3.35	0.75	509.28	138.20	194.99	842.46
2014	84.14	3.93	0.81	265.72	96.43	133.11	495.26
2015	46.17	2.84	0.44	96.56	51.31	52.94	200.82
2016	51.97	3.14	0.47	81.36	43.69	43.20	168.25
2017	55.84	3.30	0.47	69.59	37.23	35.03	141.85
2018	58.10	3.38	0.47	60.28	32.22	29.52	122.01
2019	59.42	3.47	0.47	52.81	28.54	25.51	106.87
2020	60.26	3.56	0.47	46.97	25.85	22.52	95.34
2021	60.69	3.65	0.47	41.91	23.61	20.06	85.59
Rem	61.17	4.09	0.47	342.58	216.64	164.19	723.41
Total	71.23	3.50	0.58	2,036.91	750.63	826.85	3,614.38

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	23.27	0.99	6,155.36	428.87	-5,975.96	-5,975.96	-5,902.62	-5,902.62
2013	62.98	2.65	0.00	494.89	-5,694.03	-5,694.03	269.11	-5,633.52
2014	37.31	1.56	0.00	239.08	217.31	-5,476.71	196.98	-5,436.54
2015	15.22	0.63	0.00	249.85	-64.89	-5,541.61	-55.52	-5,492.06
2016	12.75	0.53	0.00	242.92	-87.95	-5,629.55	-71.69	-5,563.75
2017	10.74	0.45	0.00	238.48	-107.82	-5,737.38	-83.75	-5,647.50
2018	9.24	0.38	0.00	235.50	-123.10	-5,860.48	-91.08	-5,738.58
2019	8.09	0.34	0.00	233.32	-134.88	-5,995.36	-95.06	-5,833.63
2020	7.22	0.30	0.00	231.70	-143.88	-6,139.24	-96.57	-5,930.20
2021	6.48	0.27	0.00	230.37	-151.53	-6,290.77	-96.87	-6,027.07
Rem	54.89	2.27	0.00	3,538.22	-2,871.97	-2,871.97	-1,231.43	-1,231.43
Total	248.20	10.37	6,155.36	6,363.20	-9,162.73	-9,162.73	-7,258.50	-7,258.50

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.87400000		
Initial Rate :	9,644.00 Mcf/month	Disc. Initial Invest. (m\$) :	6,080.172	5.00% :	-7,258.50
Abandonment :	304.17 Mcf/month	Internal ROR (%) :	>1000.0	9.00% :	-6,533.88
Initial Decline :	60.00 % year b = 1.000	ROIInvestment (disc/undisc) :	0.00 / 0.00	10.00% :	-6,409.29
Beg Ratio :	0.08 bbl/Mcf	Years to Payout :	0.00	12.00% :	-6,204.47
End Ratio :	0.05 bbl/Mcf	Abandonment Date :	09/21/2037	15.00% :	-5,977.50
Forecast Start :	03/01/2013			20.00% :	-5,728.84
		Initial	1st Rev.	30.00% :	-5,455.36
		Working Interest : 1.00000000	0.00000000	40.00% :	-5,298.63
		Revenue Interest : 0.87400000	0.00000000	50.00% :	-5,187.21
		Rev. Date :		60.00% :	-5,097.87

1004801/PLU CVX JV RB/002H/LOW

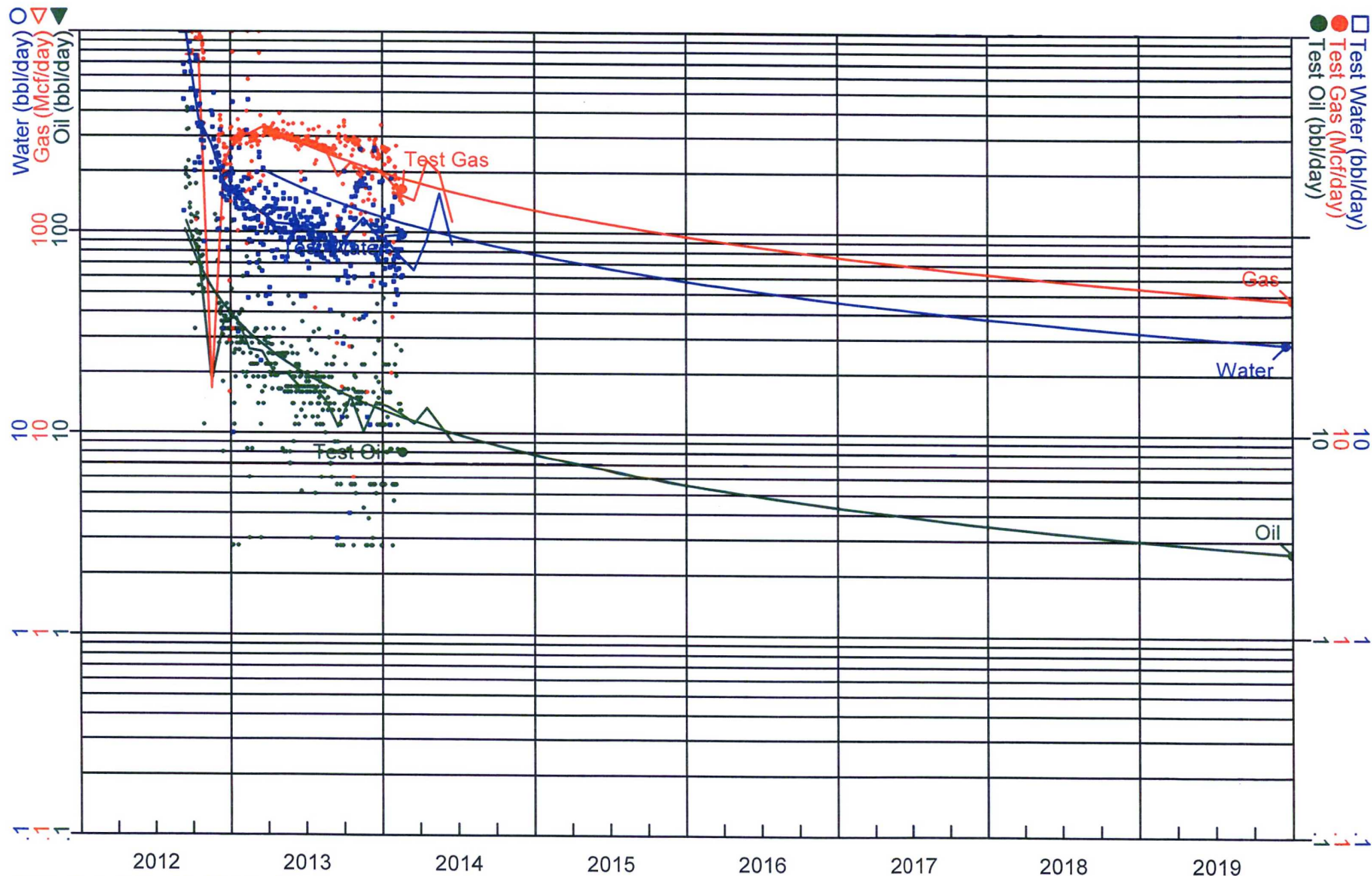
Oper: BOPCO

Reservoir: LOWER AVALON

Field: FORTY NINER RIDGE; BONE SPRING

EDDY, NM

ECL Date: 09/21/2037



Proj Gas Cum: 40.48 MMcf

Gas Rem: 440.91 MMcf

Gas EUR: 481.39 MMcf

Proj Oil Cum: 5.11 Mbbl

Oil Rem: 27.61 Mbbl

Oil EUR: 32.72 Mbbl

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU CVX JV Remuda Basin #002H(32-23-30) _____ FORMATION _____ BONE SPRING _____
 LOCATION _____ UNIT, _____ 150 _____ FEET FROM _____ SOUTH _____ LINE & _____ 660 _____ FEET FROM _____ WEST _____ LINE
 SECTION _____ 32 _____ TOWNSHIP _____ 23S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____ NEW MEXICO
 SPUD DATE _____ 6/12/2012 _____ COMPLETION DATE _____ 8/30/2012 _____ INITIAL PRODUCTION _____ 9/13/2012 _____
 PERFORATIONS _____ 8408-12827 _____
 BHL: 258' FNL & 623' FWL SEC 32 T23S R30E _____

STIMULATION:

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (9/21/2012): 324 BOPD, 1500 MCFPD, 1301 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED		SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE	
Area (A) proration unit size, acres	160	_____	_____	_____
Porosity (Φ), %	18%	_____	_____	_____
Water saturation (S_w), %	11%	_____	_____	_____
Net Thickness (H), ft.	110	_____	_____	_____
Temperature (T), Fahrenheit	131	_____	_____	_____
Bottom Hole pressure (P), psia	3,775	_____	_____	_____
Recovery factor (RF), %	60%	_____	_____	_____
SHRINKAGE (f_g)	98%	_____	_____	_____
Recoverable gas, MMCF *(See eq. below)	17,693.2	_____	_____	_____

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((43.560 \text{ MCF/ac-ft}) (\text{por}) (1-S_w)(RF)(B_{gi} \text{ scf/mcf})(f_g)(A) (h))/1000 \text{ MCF/MMCF}$ $B_{gi} = 252.00 \text{ scf/rcf}$

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 12/31/2014 167,708 BBL Oil 188,947 MCF Gas
INITIAL RATE (qi) 890 mcf/d
ECONOMIC LIMIT (qi) 10
HYPERBOLIC DECLINE RATE, dy n=1, d = 55%/yr
REMAINING MMCF (Q) = 600
ULTIMATE RECOVERABLE MMCF 789

(Attach plat showing proration unit and participating area.)

ECONOMIC

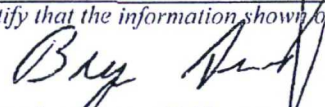
GROSS WELL COST \$2,339,037 (to the depth of formation completed)

COMPLETION COST \$3,816,323

GROSS TOTAL COST \$6,155,360

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	47.458	632.5	453.1	-5902.6
2	92.440	842.5	560.5	269.1
3	55.031	495.3	278.0	197.0
4	40.498	200.8	265.7	-55.5
5	31.249	168.3	256.2	-71.7
6	25.336	141.9	249.7	-83.8
7	21.354	122.0	245.1	-91.1
8	18.456	106.9	241.8	-95.1
9	16.293	95.3	239.2	-96.6
10	14.514	85.6	237.1	-96.9
REMAINDER	118.758	723.4	3595.4	-1231.4
TOTAL	481.387	3614.4	6621.8	-7258.5

WELL IS NOT COMMERCIAL

Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised August 1, 2011																
		1. WELL API NO. 30-015-40341																
		2. Type of Lease <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> FED/INDIAN																
		3. State Oil & Gas Lease No.																
WELL COMPLETION OR RECOMPLETION REPORT AND LOG																		
4. Reason for filing: <input checked="" type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input type="checkbox"/> C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)		5. Lease Name or Unit Agreement Name PLU REMUDA BASIN 32 23 30 6. Well Number: 1H																
7. Type of Completion: <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input type="checkbox"/> OTHER		<div style="border: 2px solid black; padding: 5px; width: fit-content; margin: auto;"> RECEIVED SEP 25 2012 NMOCD ARTESIA </div>																
8. Name of Operator Chesapeake Operating, Inc.																		
10. Address of Operator P.O. Box 18496 Oklahoma City, OK 73154		11. Pool name or Wildcat FORTY-NINER RIDGE; BONE SPRING, W																
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County								
Surface:	M	32	23S	30E		150	S	660'	W	EDDY								
BH:	D	32	23S	30E		258'	N	623'	W	EDDY								
13. Date Spudded 06/12/2012	14. Date T.D. Reached 07/06/2012	15. Date Rig Released 07/10/2012				16. Date Completed (Ready to Produce) 08/30/2012		17. Elevations (IDF and RKB, RT, GR, etc.) 3241' GR										
18. Total Measured Depth of Well 12950'		19. Plug Back Measured Depth 12950'				20. Was Directional Survey Made? YES		21. Type Electric and Other Logs Run GR/INDUCTION										
22. Producing Interval(s), of this completion - Top, Bottom, Name 8408'-12827'																		
23. CASING RECORD (Report all strings set in well)																		
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED								
13 3/8"		48		775'		17 1/2"		1200										
8 5/8"		32		3725		11		1600										
5 1/2"		20		12879'		7 7/8"		1900										
24. LINER RECORD																		
SIZE	TOP	BOTTOM		SACKS CEMENT		SCREEN												
25. TUBING RECORD																		
SIZE	DEPTH SET		PACKER SET															
	2 7/8"		7417'															
26. Perforation record (interval, size, and number) 8408'-12827' ; 6 SPF						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>DEPTH INTERVAL</th> <th>AMOUNT AND KIND MATERIAL USED</th> </tr> <tr> <td>8408'-12827'</td> <td>984 Gals 15% HCl</td> </tr> <tr> <td></td> <td>4,481,480 #s Sand</td> </tr> <tr> <td></td> <td>98,654 Barrels Slick Water/Gel</td> </tr> </table>					DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED	8408'-12827'	984 Gals 15% HCl		4,481,480 #s Sand		98,654 Barrels Slick Water/Gel
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED																	
8408'-12827'	984 Gals 15% HCl																	
	4,481,480 #s Sand																	
	98,654 Barrels Slick Water/Gel																	
CONFIDENTIAL																		
28. PRODUCTION																		
Date First Production 09/13/2012		Production Method (Flowing, gas lift, pumping - Size and type pump) Sub pump-ESP 2 7/8"					Well Status (Prod. or Shut-in) Prod.											
Date of Test 09/21/2012	Hours Tested 24	Choke Size 42/64	Prod'n For Test Period	Oil - Bbl 324	Gas - MCF 1500	Water - Bbl. 1301	Gas - Oil Ratio											
Flow Tubing Press. 620	Casing Pressure 600	Calculated 24-Hour Rate	Oil - Bbl. 324	Gas - MCF 1500	Water - Bbl. 1301	Oil Gravity - API - (Corr.)												
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Flared; Flare Permit Approved through 11/30/2012							30. Test Witnessed By											
31. List Attachments																		
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.																		
33. If an on-site burial was used at the well, report the exact location of the on-site burial:																		
Latitude Longitude NAD 1927 1983																		
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief																		
Signature		Printed Name				Title		Date										
		Bryan Arrant				Regulatory Specialist II		09/24/2012										
E-mail Address bryan.arrant@chk.com				Amended - Well Potential				CONFIDENTIAL										

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinébry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand 3600	T. Morrison	
T. Drinkard	T. Bone Springs 7373	T. Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

From	To	Thickness In Feet	Lithology

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 30-015-40341	² Pool Code 96526	³ Pool Name Forty-Niner Ridge; Bone Spring, West
⁴ Property Code 313370	⁵ Property Name Poker Lake Unit CVX I JV RB	⁶ Well Number 2H
⁷ OGRID No. 260737	⁸ Operator Name BOPCO, LP	⁹ Elevation 3241

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
M	32	23S	30E		150	South	660	West	Eddy

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
D	32	23S	30E		258	North	623	West	Eddy

¹² Dedicated Acres 162.87	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

				<p>¹⁷ OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Tracie J Cherry</i> <i>08/04/14</i> Signature Date</p> <p>Tracie J Cherry Printed Name</p> <p>ticherry@basspet.com E-mail Address</p>
				<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p>
				<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
				<p>Certificate Number</p>



Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

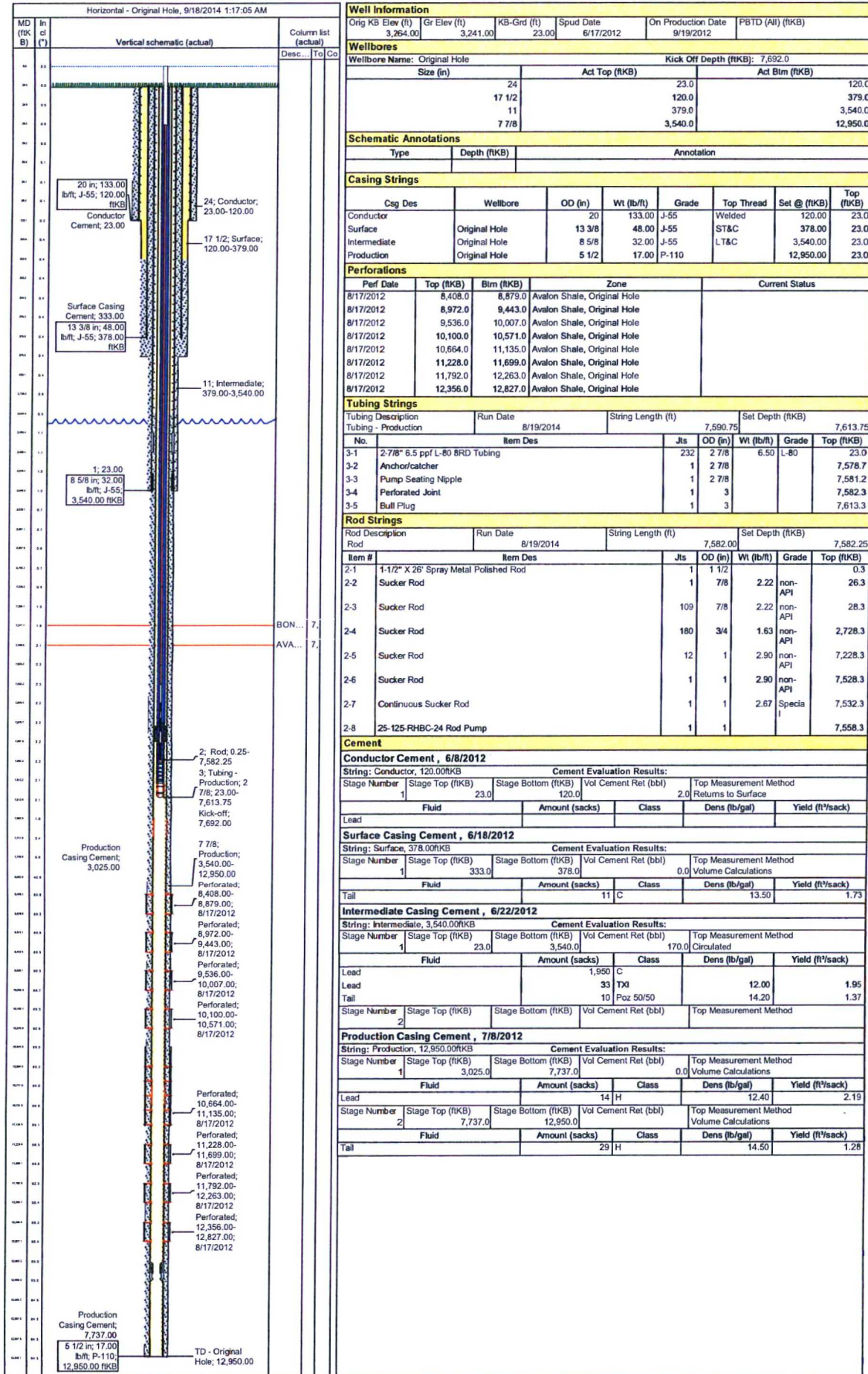
Well Name: POKER LAKE UNIT CVX JV RB #002H (32-23-30)

Well ID: 30-015-40341

Field:

Sect: 32 Town: 23S Rng: 30E County: Eddy State: New Mexico

Surface Location: 150' FSL & 660' FWL, Sec 32, T23S-R30E





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV RB #002H (32-23-30)

Well ID: 30-015-40341

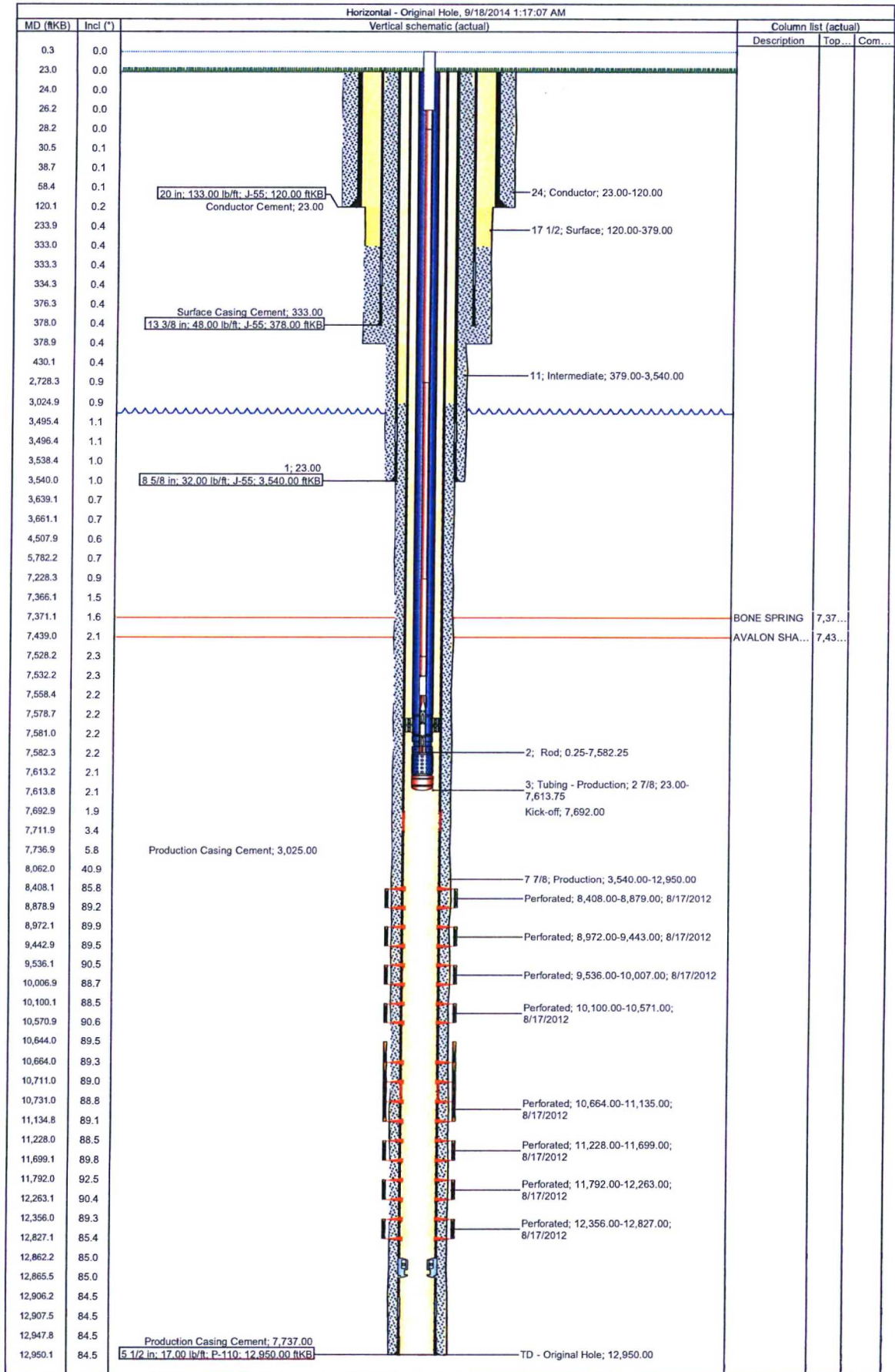
Field:

Sect: 32 Town: 23S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Maintenance	Rod Pump	Pump Repair	8/18/2014	8/20/2014



366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 10, 2015

RECEIVED OOD

2015 JUL 13 P 2:40

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Big Sinks #017H (7-25-31)
1st Bone Spring Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1st Bone Spring Shale. Should you be in agreement that the 1st Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

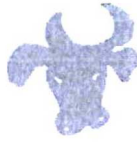
Its: _____

Its: _____

Date: _____

Date: _____

Date: _____

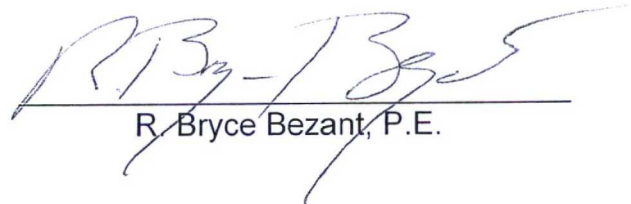


INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/8/2015
RE: Commercial Determination
PLU CVX JV Big Sinks #017H (7-25-31)
Poker Lake Unit (1st Bone Spring Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks #017H was drilled in 2012 to a total depth of 14,050' laterally completed in the 1st Bone Spring Shale reservoir. The well is producing from perforations 8,013'-14,050'. On test 2/12/2013 the well flowed at the rate of 371 BOPD, 285 MCFD, and 1524 BWPD. This well has an expected recovery of approximately 109 MBOE (13:1 mcf/bbl) from the current completion.

Economic cases were taken from the 1/1/2015 NSAI bankers database, with the capital investment taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Big Sinks #017H will not be a commercial well and should not be incorporated into a participating area.



R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 4/24/2015

Lior: 1004616

2:28:34PM

Project Name : 1-1-2015 NSAI Review For BOPCO, LP

As Of Date : 01/01/2013

Lease Name : 1004616/PLU CVX JV BS/017H/1ST

Partner : All cases

Discount Rate (%) : 5.00

Reserv Cat. : Proved Producing

Case Type : LEASE CASE

Field : WILDCAT G-06 S2530020;BONE SPRING

Archive Set : BOPCO0115

1004616/PLU CVX JV BS/017H/1ST

Operator : BOPCO

Cum Oil (Mbbbl) : 0.00

Reservoir : 1st BONE SPRING SHALE

Cum Gas (MMcf) : 0.00

Co., State : EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

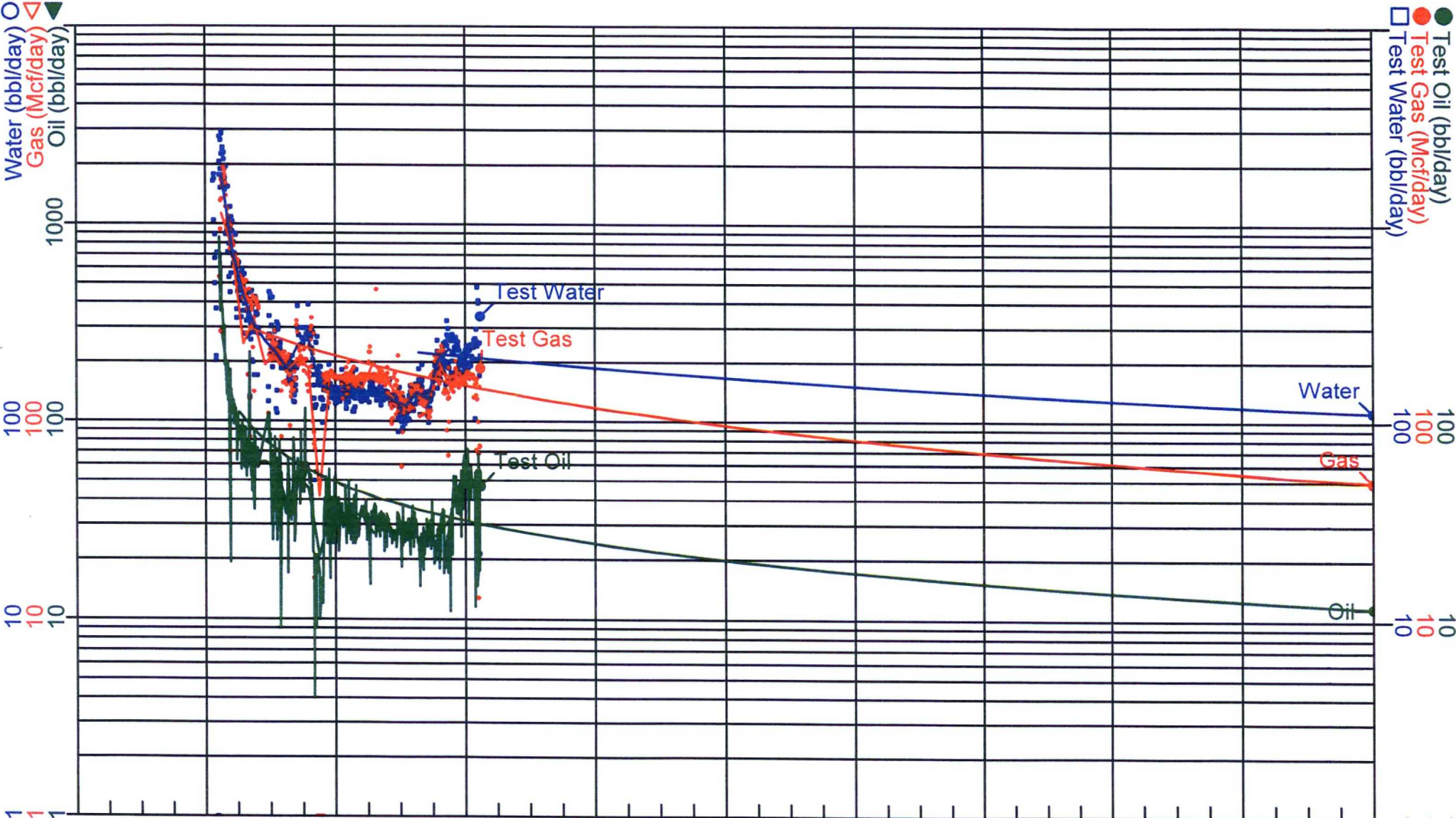
Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2013	22.757	98.768	47.577	148.152	19.435	40.630	126.522
2014	11.164	57.696	27.792	86.544	9.534	23.735	73.909
2015	9.949	48.620	23.420	72.930	8.497	20.001	62.282
2016	7.974	38.718	18.650	58.077	6.810	15.927	49.597
2017	6.730	32.029	15.428	48.044	5.748	13.176	41.029
2018	5.892	27.374	13.186	41.061	5.032	11.261	35.066
2019	5.274	23.902	11.514	35.853	4.504	9.833	30.619
2020	4.810	21.268	10.245	31.902	4.107	8.749	27.244
2021	4.405	19.063	9.183	28.595	3.762	7.842	24.420
2022	1.516	6.494	3.128	9.741	1.295	2.672	8.319

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	80.473	373.932	180.123	560.898	68.724	153.825	479.007
Ult.	80.473	373.932					

Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2013	87.07	3.24	0.75	1,692.19	131.74	94.89	1,918.81
2014	81.41	3.92	0.80	776.15	93.04	59.42	928.62
2015	45.93	2.55	0.45	390.29	50.99	28.25	469.53
2016	52.04	2.85	0.47	354.38	45.36	23.44	423.18
2017	54.61	3.07	0.47	313.88	40.41	19.39	373.69
2018	56.09	3.16	0.47	282.21	35.57	16.58	334.36
2019	57.19	3.23	0.47	257.62	31.78	14.47	303.88
2020	58.38	3.33	0.47	239.77	29.17	12.88	281.81
2021	59.17	3.47	0.47	222.60	27.19	11.54	261.33
2022	59.62	3.67	0.47	77.19	9.80	3.93	90.92
Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	67.03	3.22	0.59	4,606.28	495.04	284.81	5,386.13

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2013	60.50	1.55	6,521.90	1,213.49	-5,878.63	-5,878.63	-5,872.82	-5,872.82
2014	67.60	1.72	0.00	293.34	565.95	-5,312.68	527.22	-5,345.60
2015	34.20	0.87	0.00	269.34	165.12	-5,147.56	146.28	-5,199.31
2016	30.80	0.78	0.00	258.79	132.80	-5,014.76	112.10	-5,087.21
2017	27.19	0.69	0.00	250.15	95.66	-4,919.10	76.90	-5,010.31
2018	24.32	0.62	0.00	243.39	66.04	-4,853.06	50.57	-4,959.73
2019	22.09	0.56	0.00	237.82	43.40	-4,809.66	31.66	-4,928.07
2020	20.48	0.52	0.00	233.31	27.51	-4,782.15	19.12	-4,908.96
2021	18.99	0.48	0.00	229.16	12.70	-4,769.46	8.42	-4,900.54
2022	6.61	0.17	0.00	81.93	2.21	-4,767.24	1.42	-4,899.12
Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	312.77	7.98	6,521.90	3,310.72	-4,767.24	-4,767.24	-4,899.12	-4,899.12

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.85400000		
Initial Rate :	7,447.00 Mcf/month	Disc. Initial Invest. (m\$) :	6,521.900	5.00% :	-4,899.12
Abandonment :	1,460.95 Mcf/month	Internal ROR (%) :	>1000.0	9.00% :	-4,984.68
Initial Decline :	44.07 % year b = 1.000	ROI Investment (disc/undisc) :	0.25 / 0.27	10.00% :	-5,003.83
Seg Ratio :	0.31 bbl/Mcf	Years to Payout :	0.00	12.00% :	-5,039.82
End Ratio :	0.23 bbl/Mcf	Abandonment Date :	05/13/2022	15.00% :	-5,088.62
Forecast Start :	04/01/2013			20.00% :	-5,158.45
				30.00% :	-5,266.29
				40.00% :	-5,345.39
				50.00% :	-5,405.73
				60.00% :	-5,453.24



BOPCO0115 Oil (ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 102,742 bbl
EUR: 102,742 bbl
04/04/2013 - 08/05/2029
Qi: 3,366 / Qact: 2,298
Qf: 187
D: 88.436 / Dmin: 8.000
B: 1.50000

BOPCO0115 Gas (ARPs)
Segment: 1 of 1
Cum: 0 Mcf
Rem: 468,640 Mcf
EUR: 468,640 Mcf
04/29/2013 - 08/05/2029
Qi: 9,126 / Qact: 7,447
Qf: 795
D: 44.067 / Dmin: 8.000
B: 1.00000

BOPCO0115 Water (ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 820,672 bbl
EUR: 820,672 bbl
08/20/2014 - 08/05/2029
Qi: 6,832 / Qact: 4,338
Qf: 2,259
D: 13.771 / Dmin: 5.000
B: 1.20000

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL PLU CVX JV Big Sinks #017H (7-25-31) FORMATION BONE SPRING
 LOCATION UNIT, 150 FEET FROM NORTH LINE & 1980 FEET FROM WEST LINE
 SECTION 7 TOWNSHIP 25S RANGE 31E COUNTY Eddy NEW MEXICO
 SPUD DATE 8/30/2012 COMPLETION DATE 2/6/2013 INITIAL PRODUCTION 2/12/2013
 PERFORATIONS 8013-14050
 BHL: 106' FNL & 1970' FEL SEC 14 T24S R30E
 STIMULATION:

ACID

FRACTURE See Attached

POTENTIAL (2/12/2013): 371 BOPD, 285 MCFPD, 1524 BWPD

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	<u>160</u>	<u></u>
Porosity (Φ), %	<u>9%</u>	<u></u>
Water saturation (Sw), %	<u>23%</u>	<u></u>
Net Thickness (H), ft.	<u>65</u>	<u></u>
Temperature (T), Fahrenheit	<u>140</u>	<u></u>
Bottom Hole pressure (P), psia	<u>4,370</u>	<u></u>
Recovery factor (RF), %	<u>12%</u>	<u></u>
Recoverable oil, MBO *(See eq. below)	<u>385.9</u>	<u></u>

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((7758 \text{ BO/ac-ft}) (\text{por}) (1-S_w)(RF)(Boi)(A) (h))/1000$ Boi = 1.70 RB/MSTB

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 12/31/2014 33,921 BBL Oil 157,046 MCF GasINITIAL RATE (qi) 320 bopdECONOMIC LIMIT (ql) 3 bopdHYPERBOLIC DECLINE RATE, dy n = 1.2, d = 99%/yrREMAINING MCF (Q) = 38ULTIMATE RECOVERABLE MBO 71

(Attach plot showing proration unit and participating area.)

ECONOMICGROSS WELL COST \$2,478,321 (to the depth of formation completed)COMPLETION COST \$4,043,577GROSS TOTAL COST \$6,521,898

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	<u>22.757</u>	<u>1918.8</u>	<u>1275.5</u>	<u>-5872.8</u>
2	<u>11.164</u>	<u>928.6</u>	<u>362.7</u>	<u>527.2</u>
3	<u>9.949</u>	<u>469.5</u>	<u>304.4</u>	<u>146.3</u>
4	<u>7.974</u>	<u>423.2</u>	<u>290.4</u>	<u>112.1</u>
5	<u>6.730</u>	<u>373.7</u>	<u>278.0</u>	<u>76.9</u>
6	<u>5.892</u>	<u>334.4</u>	<u>268.3</u>	<u>50.6</u>
7	<u>5.274</u>	<u>303.9</u>	<u>260.5</u>	<u>31.7</u>
8	<u>4.810</u>	<u>281.8</u>	<u>254.3</u>	<u>19.1</u>
9	<u>4.405</u>	<u>261.3</u>	<u>248.6</u>	<u>8.4</u>
10	<u>1.516</u>	<u>90.9</u>	<u>88.7</u>	<u>1.4</u>
REMAINDER	<u>0.000</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
TOTAL	<u>80.471</u>	<u>5386.1</u>	<u>3631.5</u>	<u>-4899.1</u>

WELL IS NOT COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM0304581a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
891000303X2. Name of Operator
CHESAPEAKE OPERATING INC Contact: TRACIE CHERRY
E-Mail: tjcherry@basspet.com8. Lease Name and Well No.
PLU BIG SINKS 7 25 31 USA 1H3. Address
OKLAHOMA CITY, OK 73154-04963a. Phone No. (include area code)
Ph: 432-221-73799. API Well No.
30-015-40447-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NENW 150FNL 1980FWL 32.152005 N Lat, 103.819399 W Lon

At top prod interval reported below NENW 1373FNL 2015FWL 32.152005 N Lat, 103.819399 W Lon

At total depth SESW 121FSL 1981FWL

10. Field and Pool, or Exploratory
WILDCAT11. Sec., T., R., M., or Block and Survey
or Area Sec 7 T25S R31E Mer NMP12. County or Parish
EDDY13. State
NM14. Date Spudded
08/30/201215. Date T.D. Reached
09/18/201216. Date Completed
☐ D & A ☒ Ready to Prod.
02/06/201317. Elevations (DF, KB, RT, GL)*
3369 GL18. Total Depth: MD
TVD 14050
943419. Plug Back T.D.: MD
TVD 1394120. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
ZDL-CN-XMAC-HDI22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	825		1100		0	
11.000	8.625 J-55	32.0	0	4100		1725		0	
7.875	5.500 P-110	17.0	0	14050		2200			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8812							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	8013	14050	10176 TO 13921	0.430	216	OPEN
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10176 TO 13921	# propan, 39161 bbls fluid over 8 stages

RECLAMATION
DUE 8-6-13

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
02/10/2013	02/12/2013	24	→	371.0	285.0	1524.0	44.7	0.77	ELECTRIC PUMP-SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press	24 Hr. Rate →	Oil BBL 371	Gas MCF 285	Water BBL 1524	Gas:Oil Ratio 768	Well Status POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #206822 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

MAY 19 2013

ACCEPTED FOR RECORD

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
CAPTURED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				RUSTLER	707
				BASE OF SALT	3901
				BELL CANYON	4137
				CHERRY CANYON	5058
				BRUSHY CANYON	6312
				BONE SPRING	8031
				1ST BONE SPRING	9005

32. Additional remarks (include plugging procedure):

PLEASE HOLD INFORMATION CONFIDENTIAL

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directional Survey
5. Sundry Notice for plugging and cement verification 6. Core Analysis 7. Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #206822 Verified by the BLM Well Information System.
For CHESAPEAKE OPERATING INC, sent to the Carlsbad
Committed to AFMSS for processing by JOHNNY DICKERSON on 05/10/2013 (13JLD0769SE)

Name (please print) TRACIE CHERRY

Title REGULATORY ANALYST

Signature _____ (Electronic Submission)

Date 05/08/2013

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

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

Effective 4/6/14

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-40447	² Pool Code 97913	³ Pool Name WC G-06 S2530020; Bone Spring
⁴ Property Code 313213	⁵ Property Name Poker Lake Unit CVX JV BS	⁶ Well Number 17H
⁷ OGRID No. 260737	⁸ Operator Name BOPCO, LP	⁹ Elevation 3369

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
C	7	25S	31E		150	North	1980	West	Eddy

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
N	7	25S	31E		100	South	1980	West	Eddy

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Tracie J Cherry</i> <i>4/6/14</i> Signature Date</p> <p>Tracie J Cherry Printed Name</p> <p>ticherry@basspet.com E-mail Address</p>	
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p>	
	<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>	
	<p>Certificate Number</p>	



Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

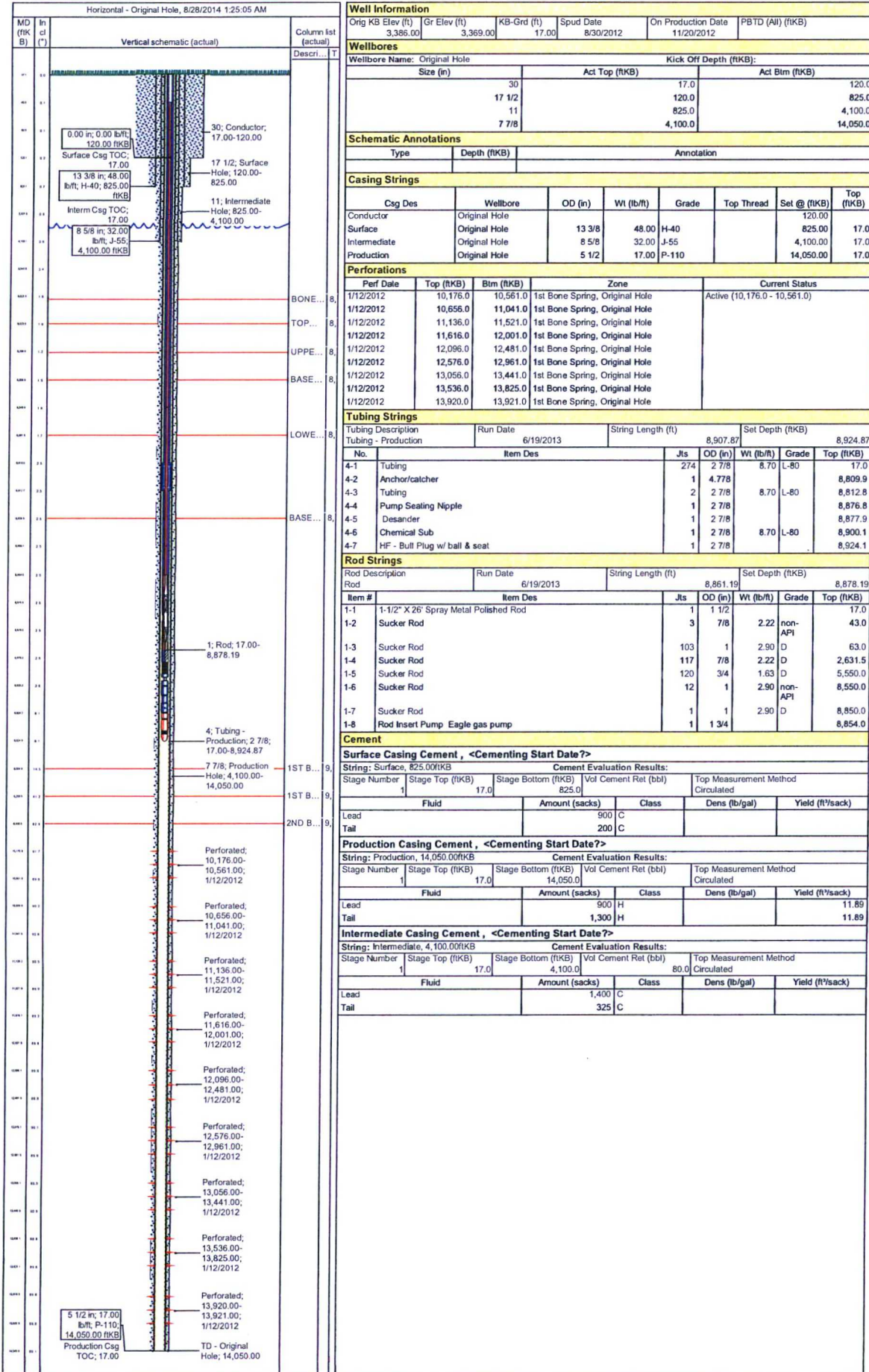
Well Name: POKER LAKE UNIT CVX JV BS #017H (07-25-31)

Well ID: 30-015-40447

Field: Wildcat - Bone Spring

Sect: 7 Town: 25S Rng: 31E County: Eddy State: New Mexico

Surface Location: 150' FNL & 1980' FWL, Sec 7, T25S-R31E





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV BS #017H (07-25-31)

Well ID: 30-015-40447

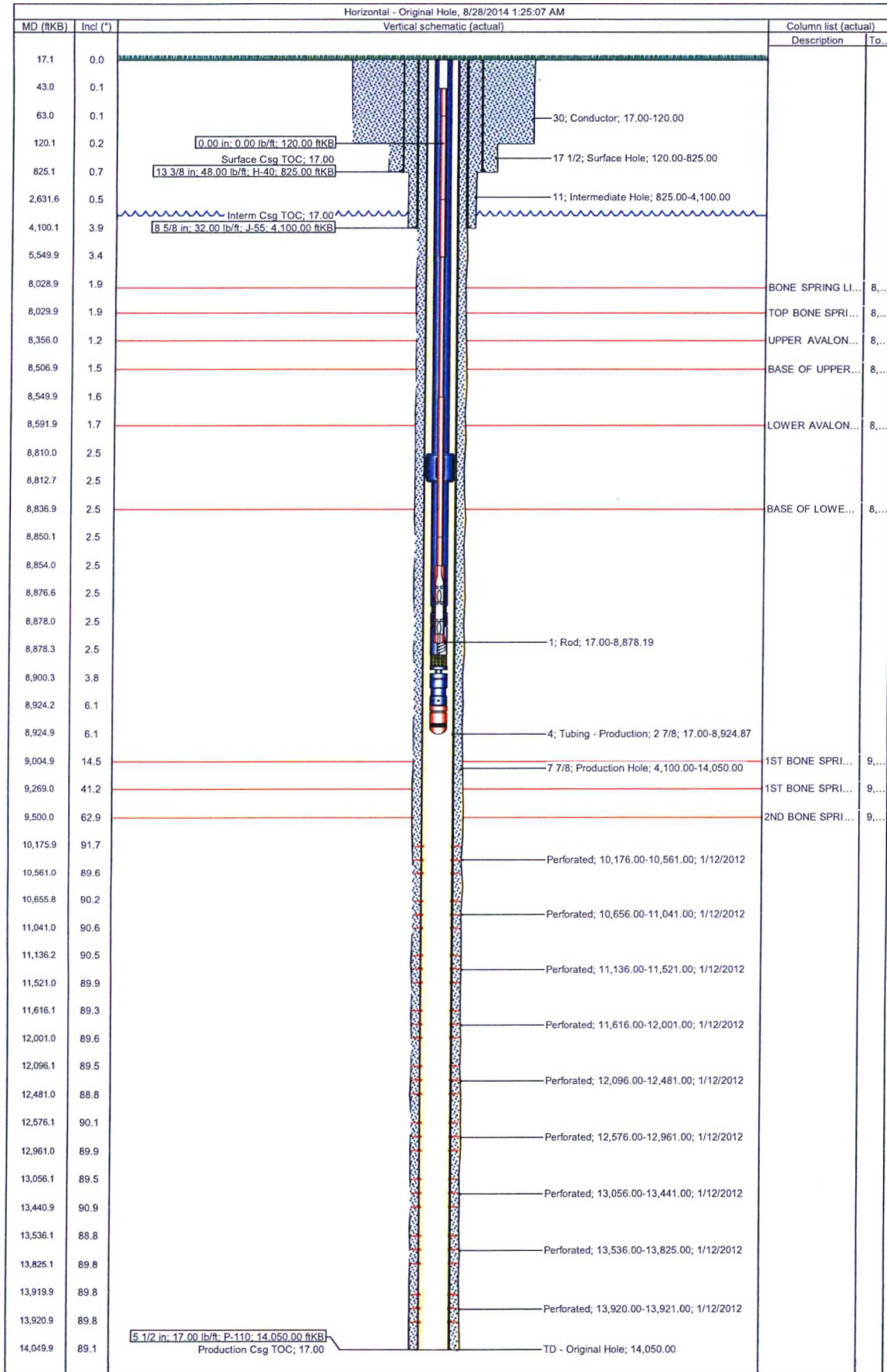
Field: Wildcat - Bone Spring

Sect: 7 Town: 25S Rng: 31E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Completion/Workover	Lift Change	Install Rod and Beam Lift	6/17/2013	



3de

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 14, 2015

RECEIVED OOD

2015 JUL 15 P 2:54

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV RB #001H (4-24-30)
1st Bone Spring Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1st Bone Spring Shale. Should you be in agreement that the 1st Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____

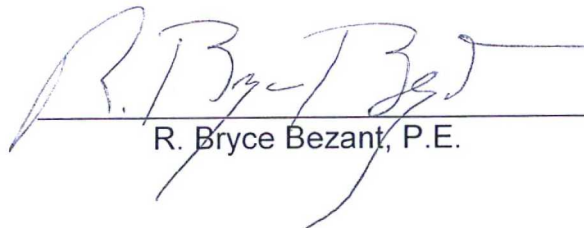


INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/8/2015
RE: Commercial Determination
PLU CVX JV RB#001H (4-24-30)
Poker Lake Unit (1st Bone Spring Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Remuda Basin #001H was drilled in 2012 to a total depth of 13,743' laterally and completed in the 1st Bone Spring Shale reservoir. The well is producing from perforations 8,979'-13,743'. On test 2/23/2013 the well flowed at the rate of 643 BOPD, 953 MCFD, and 1129 BWPD. This well has an expected recovery of approximately 277 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Remuda Basin #001H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU CVX JV REMUDA BASIN #001H _____ FORMATION _____ LOWER AVALON _____
 LOCATION _____ UNIT, _____ 175 _____ FEET FROM _____ NORTH _____ LINE & _____ 1250 _____ FEET FROM _____ EAST _____ LINE _____
 SECTION _____ 4 _____ TOWNSHIP _____ 24S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____, NEW MEXICO _____
 SPUD DATE _____ 1/29/2012 _____ COMPLETION DATE _____ 4/26/2012 _____ INITIAL PRODUCTION _____ 12/13/2012 _____
 PERFORATIONS _____ 8879-13743 _____
 BHL: 119' FSL & 655' FEL SEC 4 T24S R30E _____

STIMULATION:

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (2/23/2013): 643 BOPD, 953 MCFPD, 1129 BHPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED		POTENTIALLY PRODUCTIVE	
Area (A) proration unit size, acres	160	_____	_____	_____
Porosity (Φ), %	8.8%	_____	_____	_____
Water saturation (Sw), %	23%	_____	_____	_____
Net Thickness (H), ft.	65	_____	_____	_____
Temperature (T), Fahrenheit	140	_____	_____	_____
Bottom Hole pressure (P), psia	4,370	_____	_____	_____
Recovery factor (RF), %	12%	_____	_____	_____
Recoverable oil, MBO *(See eq. below)	385.9	_____	_____	_____

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((7758 \text{ rb/ac-ft}) (\text{por}) (1-S_w)/(\text{Boi rbo/stb})(\text{RF})(A) (h))/1000 \text{ bo/Mbo}$ Boi = 1.70 rb/stb

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 5/31/2015 76,327 BBL Oil 414,080 MCF GasINITIAL RATE (qi) 230ECONOMIC LIMIT (qi) 3 BOPDHYPERBOLIC DECLINE RATE, dy n = 1.2, d = 87%/yrREMAINING MCF (Q) = 0ULTIMATE RECOVERABLE MBO 208

(Attach plot showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,468,871 (to the depth of formation completed)COMPLETION COST \$4,028,159GROSS TOTAL COST \$6,497,030

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-7916.8
2	58.663	5726.1	1503.3	4107.1
3	13.656	1224.6	845.0	351.6
4	18.036	972.4	457.5	450.5
5	13.618	803.9	422.6	318.0
6	11.002	664.9	399.6	210.7
7	9.306	574.3	384.8	143.3
8	8.096	509.2	374.4	97.1
9	7.205	461.0	366.7	64.7
10	6.473	419.3	360.2	38.6
REMAINDER	61.716	4113.8	7115.7	-967.0
TOTAL	207.771	15469.5	12229.9	-3102.1

WELL IS NOT COMMERCIAL

ECONOMIC PROJECTION

Date : 7/9/2015

Lior: 1004802

11:30:49AM

Project Name : I-1-2015 NSAI Review For BOPCO, LP
 Partner : All cases
 Case Type : LEASE CASE
 Archive Set : NS0115

As Of Date : 10/01/2012
 Discount Rate (%) : 5.00
 1004802/PLU CVX JV RB/001H/1ST

Lease Name : 1004802/PLU CVX JV RB/001H/1ST
 Reserv Cat. : Proved Producing
 Field : WILDCAT G-06 S243026M;BONE SPRING
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

Cum Oil (mbbls) : 0.00
 Cum Gas (mmcf) : 0.00
 Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbl)	Wet Gas (MMCF)	Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbl)	Gas (MMCF)	NGL (MGal)
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2013	58.663	340.858	267.267	950.994	50.028	227.928	811.017
2014	13.656	60.113	47.135	167.715	11.646	40.197	143.029
2015	18.036	70.355	55.165	196.291	15.381	47.046	167.399
2016	13.618	51.737	40.567	144.347	11.613	34.596	123.101
2017	11.002	41.218	32.319	114.998	9.383	27.562	98.072
2018	9.306	34.561	27.099	96.426	7.936	23.111	82.233
2019	8.096	29.891	23.437	83.395	6.904	19.988	71.120
2020	7.205	26.486	20.767	73.895	6.144	17.711	63.018
2021	6.473	23.718	18.597	66.172	5.520	15.860	56.432

Rem	61.716	225.290	176.650	536.030	52.632	150.649	536.030
Total	207.770	904.227	709.004	2,522.778	177.188	604.646	2,151.450
Jlt.	207.770	904.227					

Year	Average Price			Net Revenue			
	Oil \$/BBL	Gas \$/MCF	NGL \$/Gal	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	0.00	0.00	0.00	0.000	0.000	0.000	0.000
2013	86.38	3.49	0.75	4,321.657	796.223	608.263	5,726.143
2014	81.44	3.94	0.82	948.470	158.535	117.545	1,224.550
2015	50.57	2.58	0.44	777.855	121.191	73.370	972.416
2016	55.69	2.89	0.46	646.742	100.104	57.054	803.900
2017	57.03	3.06	0.46	535.083	84.387	45.454	664.923
2018	58.44	3.13	0.46	463.778	72.445	38.113	574.335
2019	59.72	3.20	0.46	412.343	63.872	32.962	509.177
2020	60.79	3.29	0.46	373.498	58.315	29.207	461.020
2021	61.46	3.40	0.46	339.284	53.871	26.155	419.310
Rem	62.08	3.97	0.46	3,267.233	598.080	248.435	4,113.748
Total	68.21	3.48	0.59	12,085.944	2,107.022	1,276.556	15,469.523

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	0.000	0.000	7,943.280	0.000	-7,943.280	-7,943.280	-7,916.798	-7,916.798
2013	238.620	10.433	0.000	1,254.288	4,222.801	-3,720.479	4,107.102	-3,809.695
2014	89.780	3.972	0.000	751.260	379.539	-3,340.940	351.593	-3,458.102
2015	71.084	3.155	0.000	383.237	514.941	-2,825.999	450.531	-3,007.571
2016	58.734	2.608	0.000	361.286	381.271	-2,444.728	318.006	-2,689.565
2017	48.579	2.157	0.000	348.884	265.303	-2,179.425	210.696	-2,478.869
2018	41.947	1.863	0.000	341.036	189.489	-1,989.936	143.317	-2,335.552
2019	37.178	1.652	0.000	335.529	134.818	-1,855.118	97.117	-2,238.435
2020	33.661	1.496	0.000	331.514	94.349	-1,760.769	64.745	-2,173.690
2021	30.619	1.360	0.000	328.251	59.079	-1,701.690	38.618	-2,135.071
Rem	300.917	13.345	0.000	6,801.477	-3,001.991	-3,001.991	-966.991	-966.991
Total	951.119	42.042	7,943.280	11,236.762	-4,703.680	-4,703.680	-3,102.062	-3,102.062

Major Phase : Gas
 Perfs : 0 0
 Initial Rate : 69.23 mmcf/month
 Abandonment : 0.30 mmcf/month
 Initial Decline : 99.99 % year b = 1.200
 Seg Ratio : 0.16 bbl/mmcf
 End Ratio : 0.27

Working Int : 1.00000000
 Revenue Int : 0.85281000
 Disc. Initial Invest. (m\$) : 7,916.798
 Internal ROR (%) : >1000.0
 ROInvestment (disc/undisc) : 0.61 / 0.41
 Years to Payout : 0.00
 Abandonment Date : 10/10/2043

Present Worth Profile (M\$)

5.00% : -3,102.06
 9.00% : -2,837.06
 10.00% : -2,824.31
 12.00% : -2,832.23
 15.00% : -2,893.50
 20.00% : -3,047.19
 30.00% : -3,364.52
 40.00% : -3,626.37
 50.00% : -3,835.49
 60.00% : -4,005.13

	Initial	1st Rev.	2nd Rev.
Working Interest :	1.00000000	0.00000000	0.00000000
Revenue Interest :	0.85281000	0.00000000	0.00000000
Rev. Date :			

1004802/PLU CVX JV RB/001H/1ST

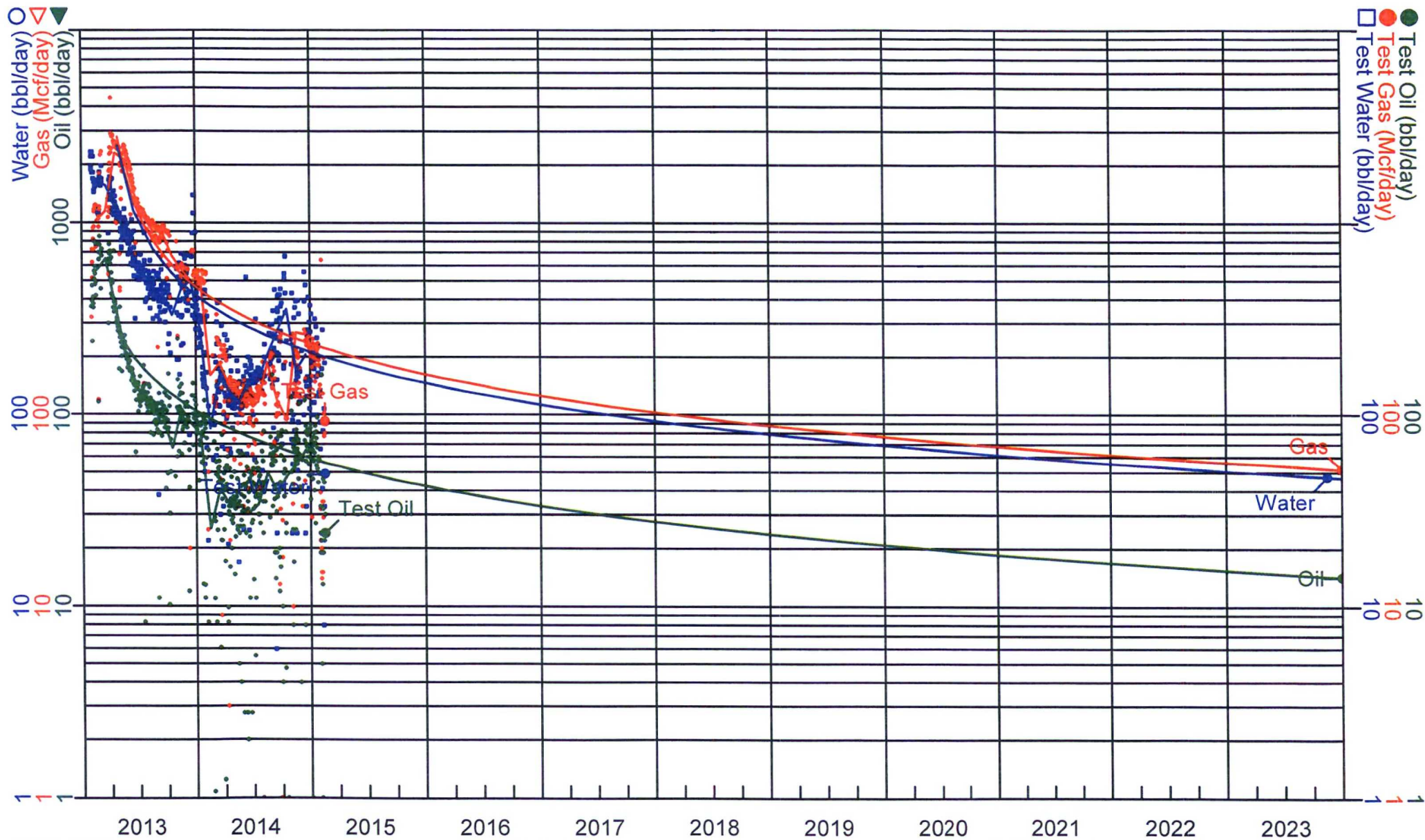
Oper: BOPCO

Major Phase: Gas

Field: WILDCAT G-06 S243026M;BONE SPRING

EDDY,NM

ECL Date: 10/10/2043



NS0115 Oil(ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 207,770 bbl
EUR: 207,770 bbl
05/17/2013 - 10/10/2043
Q1: 6,996 / Qact: 6,621
Qf: 83
D: 87.974 / Dmin: 8.000
B: 1.20000

NS0115 Gas(ARPs)
Segment: 1 of 1
Cum: 0 Mcf
Rem: 904,227 Mcf
EUR: 904,227 Mcf
04/25/2013 - 10/10/2043
Q1: 85,167 / Qact: 69,234
Qf: 304
D: 99.990 / Dmin: 8.000
B: 1.20000

NS0115 Water(Formula)
{Gas} x {WGR}
Cum: 0 bbl
Rem: 721,324 bbl
EUR: 721,324 bbl
02/01/2013 - 10/10/2043
Q1: 0 / Qact: 37,575
Qf: 274

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMLC0684311a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
891000303X2. Name of Operator
CHESAPEAKE OPERATING INC Contact: TRACIE J CHERRY
E-Mail: tjcherry@basspet.com8. Lease Name and Well No.
PLU REMUDA BASIN 4 24 30 USA 1H3. Address
OKLAHOMA CITY, OK 73154-04963a. Phone No. (include area code)
Ph: 432-221-73799. API Well No.
30-015-40660-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NENE 175FNL 1250FEL

At top prod interval reported below NENE 175FNL 1250FEL

At total depth NENE 175FNL 1250FEL

RECEIVED

APR 02 2013

10. Field and Pool, or Exploratory
UNKNOWN11. Sec., T., R., M., or Block and Survey
or Area Sec 4 T24S R30E Mer NMP12. County or Parish
EDDY13. State
NM14. Date Spudded
10/26/201215. Date T.D. Reached
11/20/201216. Date Completed
☐ D & A ☒ Ready to Prod
01/28/201317. Elevations (DF, KB, RT, GL)*
3409 GL18. Total Depth: MD 13743
TVD 905619. Plug Back T.D.: MD 13648
TVD 905420. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
ARRAYIND SPECGR CAL CPDENS CNL SGR CNL CBL22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	650		900		0	
12.250	8.625 J-55	32.0	0	3822		1850		0	
7.875	5.500 P-110	17.0	0	13715	3863	2785		0	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	7995							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	8979	13743	9337 TO 13678	0.400	220	OPEN/PRODUCING
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9337 TO 13678	FRAC INTERVAL W/TOTAL 2,035,195 GAL FLUID, 2,828,662# PROPANT. PUMPED DOWN 5 1/2 CASING IN 9 STAGES.

RECLAMATION
DUE 7-28-13

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
02/01/2013	02/23/2013	24	→	643.0	953.0	1129.0	46.0		ELECTRIC PUMP SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→	643	953	1129	1482	POW	

ACCEPTED FOR RECORD

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

MAR 30 2013

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #202333 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

BUREAU OF LAND MANAGEMENT
OFFICE

9W

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
CAPTURED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				RUSTLER	489
				BASE OF SALT	3701
				BELL CANYON	3980
				CHERRY CANYON	4861
				BRUSHY CANYON	6142
				BONE SPRING	7750

32. Additional remarks (include plugging procedure):

PLEASE HOLD INFORMATION CONFIDENTIAL

Perfs done in 9 clusters. Cluster 1 30 holes, 2-9 24 holes/each.

Well drilled by Chesapeake, turned over to BOPCO for completion.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #202333 Verified by the BLM Well Information System.
For CHESAPEAKE OPERATING INC, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 03/25/2013 (13KMS5682SE)

Name (please print) TRACIE J CHERRY

Title REGULATORY ANALYST

Signature _____ (Electronic Submission)

Date 03/22/2013

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

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

RECEIVED OGD
2014 JUN -9 P 3:50

☐ AMENDED REPORT

effective 6/10/14

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-40660	² Pool Code 97798	³ Pool Name WC G-06 S243026M; Bone Spring
⁴ Property Code 313370	⁵ Property Name Poker Lake Unit CVX JV RB	⁶ Well Number 1H
⁷ OGRID No. 260737	⁸ Operator Name BOPCO, LP	⁹ Elevation 3409

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
Lot 1	4	24S	30E		175	North	1250	East	Eddy

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
P	4	24S	30E		119	South	655	East	Eddy

¹² Dedicated Acres 162.61	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Tracie J Cherry</i> 06/04/14 Signature Date</p> <p>Tracie J Cherry Printed Name</p> <p>tcherry@basspet.com E-mail Address</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
	<p>Certificate Number</p>



Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

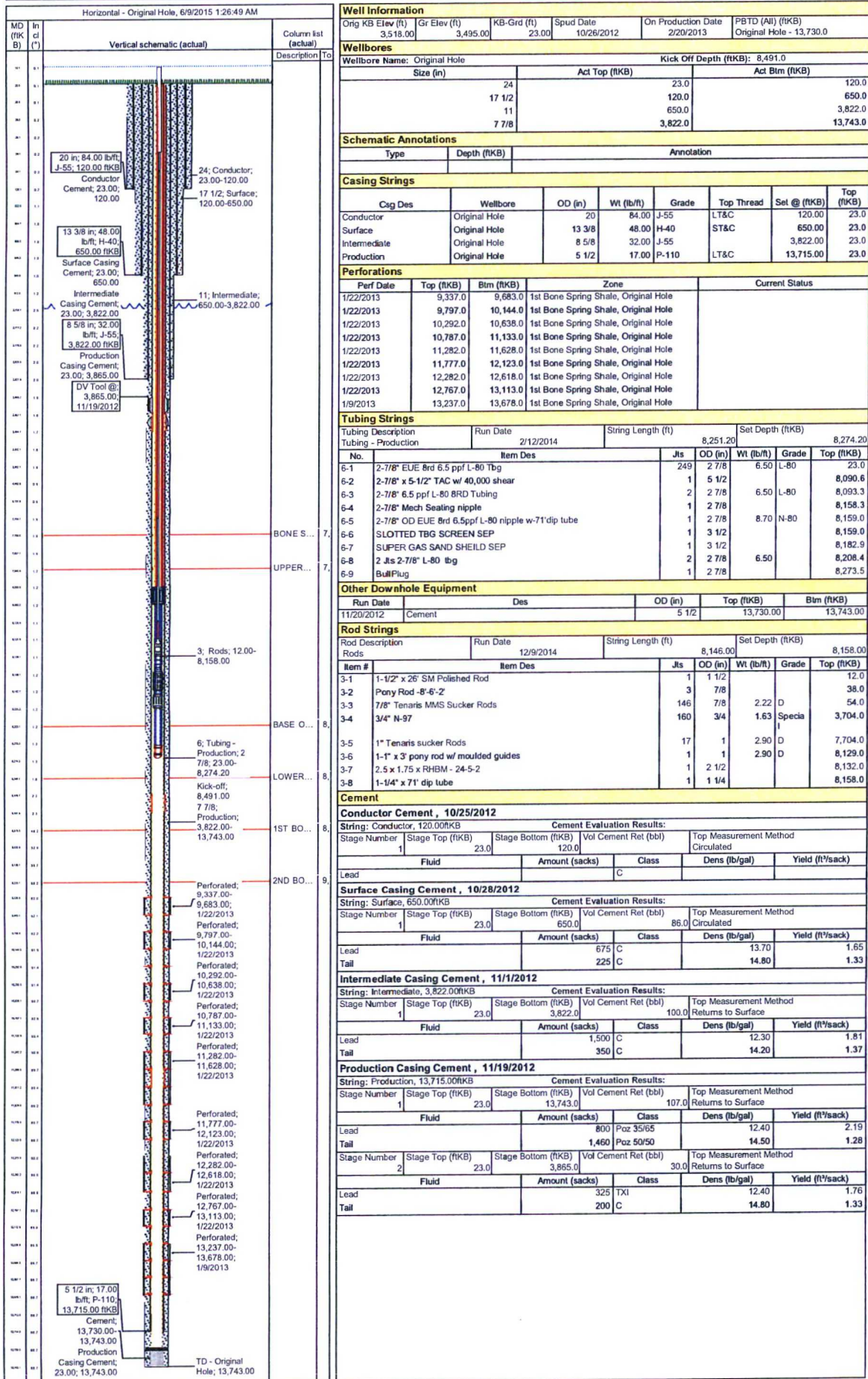
Well Name: POKER LAKE UNIT CVX JV RB #001H (04-24-30)

Well ID: 30-015-40660

Field: Wildcat - Bone Spring

Sect: 4 Town: 24S Rng: 30E County: Eddy State: New Mexico

Surface Location: 175' FNL & 660' FEL, Sec 4, T24S-R30E





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV RB #001H (04-24-30)

Well ID: 30-015-40660

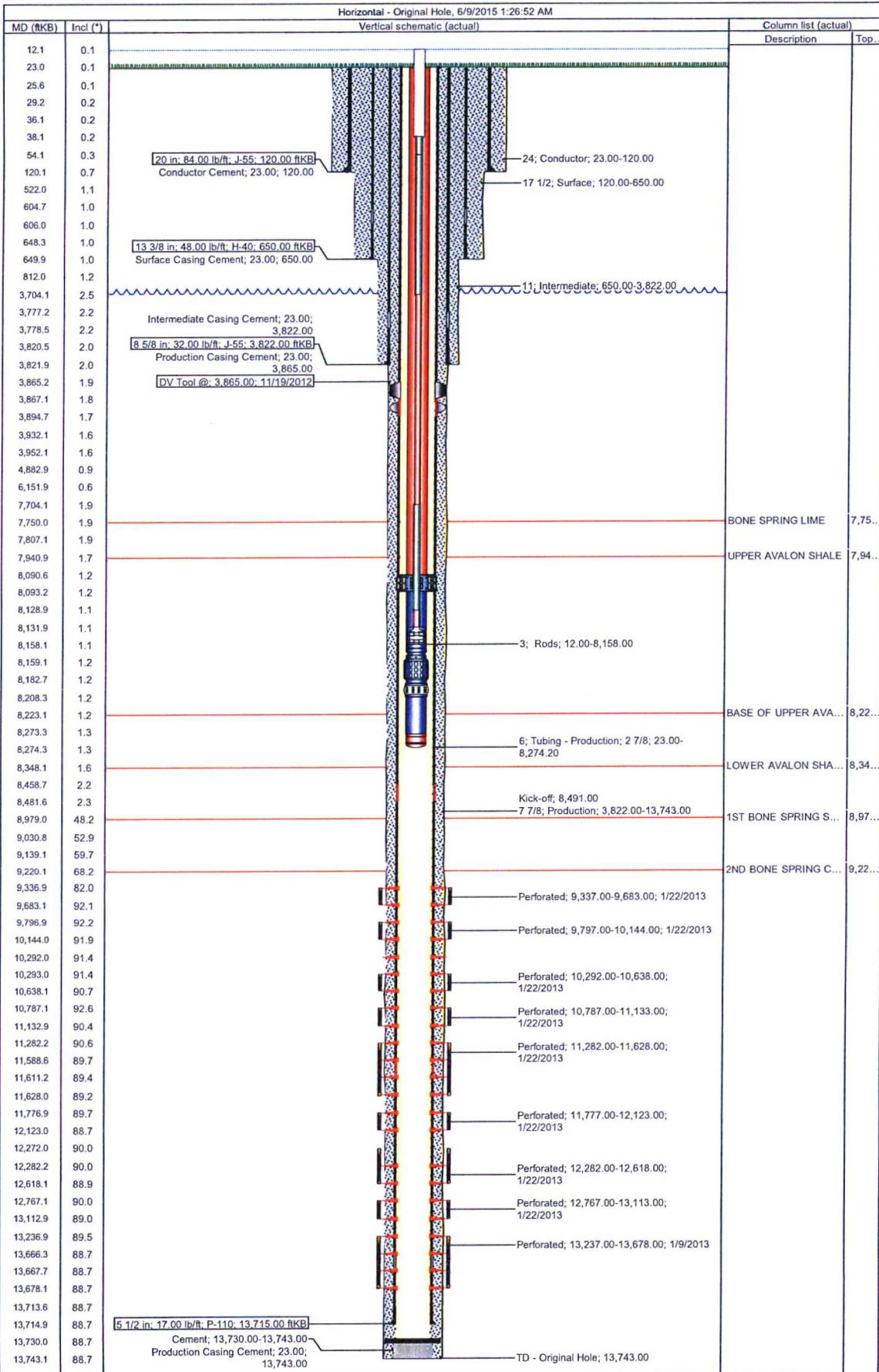
Field: Wildcat - Bone Spring

Sect: 4 Town: 24S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Maintenance	Rods	Rod Repair	12/8/2014	12/11/2014



BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 17, 2015

RECEIVED OGD

2015 JUL 20 P 1:56

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV BS #009H (PLU Big Sinks 23-24-30 #1H)
Upper Avalon Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Upper Avalon Shale. Should you be in agreement that the Upper Avalon Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Frank McCreight
FROM: Bryce Bezant
DATE: 1/16/2014
RE: Commercial Determination
PLU Big Sinks 23-24-30 #1H
Poker Lake Unit (Upper Avalon) Field
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 23-24-30 #1H was drilled in 2012 to a total depth of 12,730' laterally completed in the Upper Avalon Shale reservoir. The well is producing from perforations 8,255'-12,681'. On test 3/2/2012 the well flowed at the rate of 726 BOPD, 1658 MCFD, and 1903 BWPD. This well has an expected recovery of approximately 201MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. The Big Sinks 23-24-30 #1H will not be a commercial well and should be incorporated into a participating area.


R. Bryce Bezant

RBB/tah

Cc: Ross Sutton
Andy Morrison
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 1/20/2014

Lior: 1004609

11:18:57AM

Project Name : BOPCO, L.P.
 Partner : All cases
 Case Type : LEASE CASE
 Archive Set : 1-1-2014
 Cum Oil (Mbbbl) : 0.00
 Cum Gas (MMcf) : 0.00

As Of Date : 03/01/2011
 Discount Rate (%) : 5.00

1004609/PLU BIG SINKS 23-24-30 USA/

Lease Name : 1004609/PLU BIG SINKS 23-24-30 USA/
 Reserv Cat : Proved Producing
 Field : WILDCAT; BONE SPRING
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded
 Sales

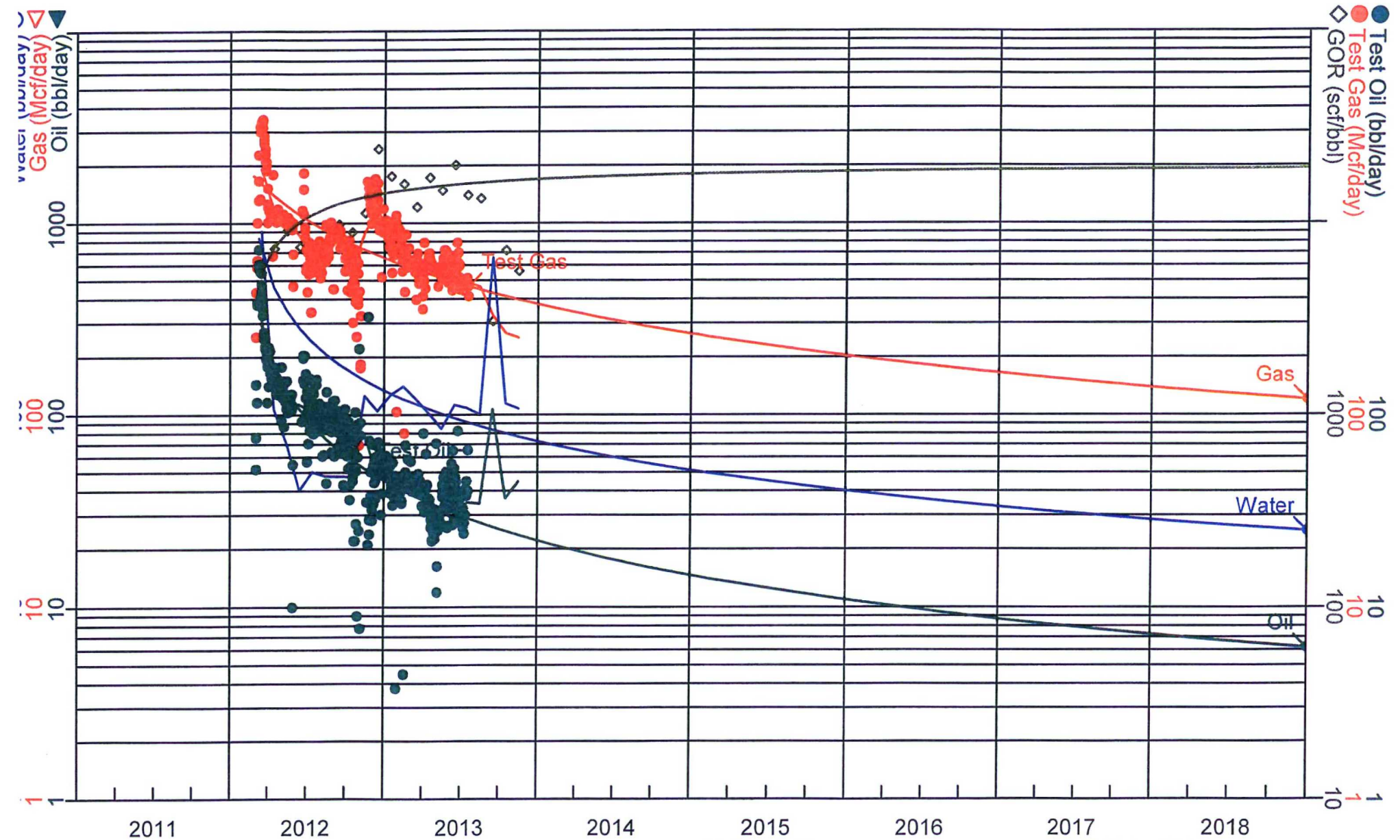
Year	Gross Wet Production		Gross Dry Gas & NGL				
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2011	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2012	32.278	272.512	154.514	14.147	25.015	119.748	10.964
2013	14.593	168.666	95.633	31.872	11.309	74.116	24.701
2014	6.502	113.663	64.447	306.890	5.039	49.946	237.840
2015	4.583	83.715	47.466	226.030	3.552	36.786	175.173
2016	3.552	66.470	37.688	179.468	2.752	29.208	139.088
2017	2.887	54.881	31.118	148.179	2.238	24.116	114.839
2018	2.438	46.841	26.559	126.471	1.889	20.583	98.015
2019	2.110	40.859	23.167	110.320	1.635	17.955	85.498
2020	1.864	36.328	20.598	98.086	1.445	15.963	76.016

Rem	24.497	487.332	276.317	1,315.797	18.985	214.146	1,019.742
Total	95.303	1,371.266	777.508	2,557.260	73.860	602.569	1,981.877
Ult.	95.303	1,371.266					

Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	92.63	2.59	0.73	2,317.18	309.81	7.96	2,634.95
2013	93.88	3.50	0.73	1,061.67	259.26	17.93	1,338.86
2014	89.50	3.69	0.73	451.01	184.20	172.67	807.88
2015	84.26	3.84	0.73	299.29	141.15	127.18	567.62
2016	80.20	3.91	0.73	220.76	114.27	100.98	436.01
2017	77.95	3.99	0.73	174.43	96.22	83.37	354.02
2018	76.62	4.08	0.73	144.75	83.99	71.16	299.90
2019	75.71	4.22	0.73	123.80	75.82	62.07	261.68
2020	75.28	4.39	0.73	108.77	70.10	55.19	234.06
Rem	74.76	5.20	0.73	1,419.26	1,114.41	740.33	3,274.00
Total	85.58	4.06	0.73	6,320.91	2,449.23	1,438.84	10,208.99

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2011	0.00	0.00	119.53	0.00	-119.53	-119.53	-115.11	-115.11
2012	214.53	15.81	6,543.47	552.97	-4,691.83	-4,811.36	-4,486.23	-4,601.34
2013	109.93	8.02	0.00	357.95	862.95	-3,948.41	765.59	-3,835.76
2014	67.85	4.76	0.00	361.03	374.24	-3,574.17	317.17	-3,518.59
2015	47.81	3.34	0.00	363.65	152.82	-3,421.35	123.25	-3,395.34
2016	36.80	2.56	0.00	356.67	39.98	-3,381.38	30.82	-3,364.52
2017	29.92	2.08	0.00	351.98	-29.96	-3,411.34	-21.63	-3,386.15
2018	25.37	1.76	0.00	348.72	-75.95	-3,487.28	-52.43	-3,438.57
2019	22.16	1.54	0.00	346.29	-108.30	-3,595.58	-71.18	-3,509.75
2020	19.83	1.38	0.00	344.44	-131.59	-3,727.18	-82.29	-3,592.04
Rem	278.24	19.25	0.00	13,413.43	-10,436.92	-10,436.92	-2,496.29	-2,496.29
Total	852.44	60.49	6,663.00	16,797.15	-14,164.09	-14,164.09	-6,088.33	-6,088.33

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.77500000		
Initial Rate :	53,597.36 Mcf/month	Disc. Initial Invest. (m\$) :	6,337.329	5.00% :	-6,088.33
Abandonment :	293.87 Mcf/month	Internal ROR (%) :	>1000.0	9.00% :	-4,477.18
Initial Decline :	86.63 % year b = 1.000	ROIInvestment (disc/undisc) :	0.04 / 0.00	10.00% :	-4,269.73
Bez Ratio :	0.00 bbl/Mcf	Years to Payout :	0.00	12.00% :	-3,967.50
End Ratio :	0.05 bbl/Mcf	Abandonment Date :	02/28/2061	15.00% :	-3,682.16
Forecast Start :	03/01/2012			20.00% :	-3,413.20
		Initial	1st Rev.	30.00% :	-3,121.85
		Working Interest : 1.00000000	0.00000000	40.00% :	-2,909.54
		Revenue Interest : 0.77500000	0.00000000	50.00% :	-2,713.00
		Rev. Date :		60.00% :	-2,522.20



1-1-2014 Oil (ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 Rem: 95,722 bbl
 EUR: 95,722 bbl
 03/01/2012 - 09/11/2063
 Qi: 9,005 / Qact: 9,671
 Qf: 13
 99.900 / Dmin: 5.000
 1.00000

1-1-2014 GOR (Formula)
 ((Gas) x 1000) / (Oil)
 Cum: N/A
 Rem: N/A
 EUR: N/A
 03/01/2012 - 09/11/2063
 Qi: 0 / Qact: 6,182
 Qf: 19,990

1-1-2014 Gas (ARPs)
 Segment: 1 of 1
 Cum: 0 Mcf
 Rem: 1,379,649 Mcf
 EUR: 1,379,649 Mcf
 02/27/2012 - 09/11/2063
 Qi: 53,597 / Qact: N/A
 Qf: 258
 D: 86.634 / Dmin: 5.000
 B: 1.00000

1-1-2014 Water (ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 Rem: 301,061 bbl
 EUR: 301,061 bbl
 03/08/2012 - 09/11/2063
 Qi: 25,336 / Qact: 28,095
 Qf: 61
 D: 99.970 / Dmin: 5.000
 B: 1.20000

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ BIG SINKS 23-24-30 _____ FORMATION _____ BONE SPRING _____
 LOCATION _____ UNIT, _____ 175 _____ FEET FROM SOUTH LINE & _____ 400 _____ FEET FROM EAST LINE
 SECTION _____ 23 _____ TOWNSHIP _____ 24S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____ NEW MEXICO
 SPUD DATE _____ 12/5/2011 _____ COMPLETION DATE _____ 3/1/2012 _____ INITIAL PRODUCTION _____ 4/8/2011 _____
 PERFORATIONS _____ 8255-12681 _____
 BHL: 406' FSL & 1925' FEL SEC 23 T24S R30E _____

STIMULATION:

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (40970); 726 BOPD, 1658 MCFPD, 1903 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	160	
Porosity (Φ), %	18%	
Water saturation (S_w), %	4%	
Net Thickness (H), ft.	234	
Temperature (T), Fahrenheit	150	
Bottom Hole pressure (P), psia	3,728	
Recovery factor (RF), %	60%	
Recoverable gas, BCF *(See eq. below)	50.7	

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $(7758) (A) (h) (por) (1-S_w)(RF)/Bgi$

Bgi = 0.61 RB/MSCF

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 4/30/2013 36,856 BBL Oil 338,911 MCF GasINITIAL RATE (qi) 1,762ECONOMIC LIMIT (ql) 300 MCFDHYPERBOLIC DECLINE RATE, dy n = 1, d = 99.54%/yrREMAINING MCF (Q) = 0ULTIMATE RECOVERABLE MCF 690,611

(Attach plot showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,531,940 (to the depth of formation completed)COMPLETION COST \$4,131,061GROSS TOTAL COST \$6,663,001

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-115.1
2	272.512	2635.0	553.0	-4486.2
3	168.666	1338.9	358.0	765.6
4	113.663	807.9	361.0	317.2
5	83.715	567.6	363.7	123.3
6	66.470	436.0	356.7	30.8
7	54.881	354.0	352.0	-21.6
8	46.841	299.9	348.7	-52.4
9	40.859	261.7	346.3	-71.2
10	36.328	234.1	344.4	-82.3
REMAINDER	487.332	3274.0	13413.4	-2496.3
TOTAL	1371.267	10209.0	16797.1	-6088.3

WELL IS NOT COMMERCIAL

(March 2009)

RECEIVED

JUL 24 2012

NMOC D ARTESIAUNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO 1004-0137
Expires October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☐ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,

Other: _____

2. Name of Operator

BOPCO, L.P.

3. Address

P O Box 2760 Midland Tx 79702

3a. Phone No (include area code)
(432)683-2277

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface ULB; 100' FNL 1980' FEL; Lat. N 32.21035388

At top prod. interval reported below

At total depth UL O; 23, 24S, 30E; 406' FSL 1925' FEL

14. Date Spudded 12/05/2011

15. Date T.D. Reached 12/25/2011

16. Date Completed 03/01/2012
☐ D & A ☒ Ready to Prod.17. Elevations (DF, RKB, RT, GL)*
3428 GL18. Total Depth: MD 12,730
TVD 8,29519. Plug Back T.D.: MD 12,639
TVD20. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
Caliper; Comp Z-DCompN.Digital Spectra Mini G.R.;
HDIGR22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2	13-3/8 H40	0	635			651 CLC	200	CIR	
12-1/4	8-5/8 J-55	0	4,061			1,387 Poz	450	CIR	
7-7/8	5-1/2 L80	0	12,730		4,922	1,840 Poz	477	2,150 CBL	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8	7,718	7,688						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf Status
A) Bone Spring	4,108	7,946	8,255-12,681	Frac	Ports	Producing
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
8,255 - 12,681	609,381 gals 100 Mesh Sand; 333,956 lbs 20/40 Super LC; 1,086,378 lbs. 30/50 Ottawa Sand; 30/50 Ottawa Sand; 17,902 Linear Gel; 20,264 Slickwater; 4785 X-LinkGel

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
3/2/12	3/9/12	24	→	726	1658	1903			Flowing
Choke Size	Tbg. Press Flwg SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
48/64	480	0	→	726	1658	1903	2284	P.O.W.	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press Flwg SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

*(See instructions and spaces for additional data on page 2)

RECLAMATION**DUE 9-1-12****ACCEPTED FOR RECORD**

JUL 22 2012

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

CM

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press Flwg SI	Csg. Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press Flwg SI	Csg. Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				Rustler	573
				Top of Salt	918
				Base of Salt	3863
				Bell Canyon	4108
				Cherry Canyon	4989
				Brushy Canyon	6299
				1st B.S. Carbonate	7946

32. Additional remarks (include plugging procedure):

2-7/8" EUE 6.40 ppf L-80 tubing; COO effective 2.23.12

8-5/8" csg. @ 4,061' and not 4,065' as listed on the Sundry filed 12/20/11

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
- ☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☐ Other

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Sandra J. Belt ext. 7379

Title Sr. Regulatory Clerk

Signature

Sandra J. Belt

Date 07/16/2012

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 3)

(Form 3160-4, page 2)

DISTRICT I

1025 N. French Dr., Hobbs, NM 88240

DISTRICT II

1501 W. Grand Avenue, Aztec, NM 88210

DISTRICT III

1000 Rio Drazos Rd., Aztec, NM 87410

DISTRICT IV

1201 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, New Mexico 87505

RECEIVED

JUL 17 2012

Form C-102

Revised July 10, 2010

NMOCD ARTESIA

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-39633	Pool Code 96403	Pool Name WILDCAT G-06 S243026;BONE SPRING
Property Code 38923	Property Name PLU BIG SINKS 23 24 30 USA	Well Number 1H
GRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3428'

Surface Location

Ul. or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	23	24 S	30 E		100	NORTH	1980	EAST	EDDY

Bottom Hole Location If Different From Surface

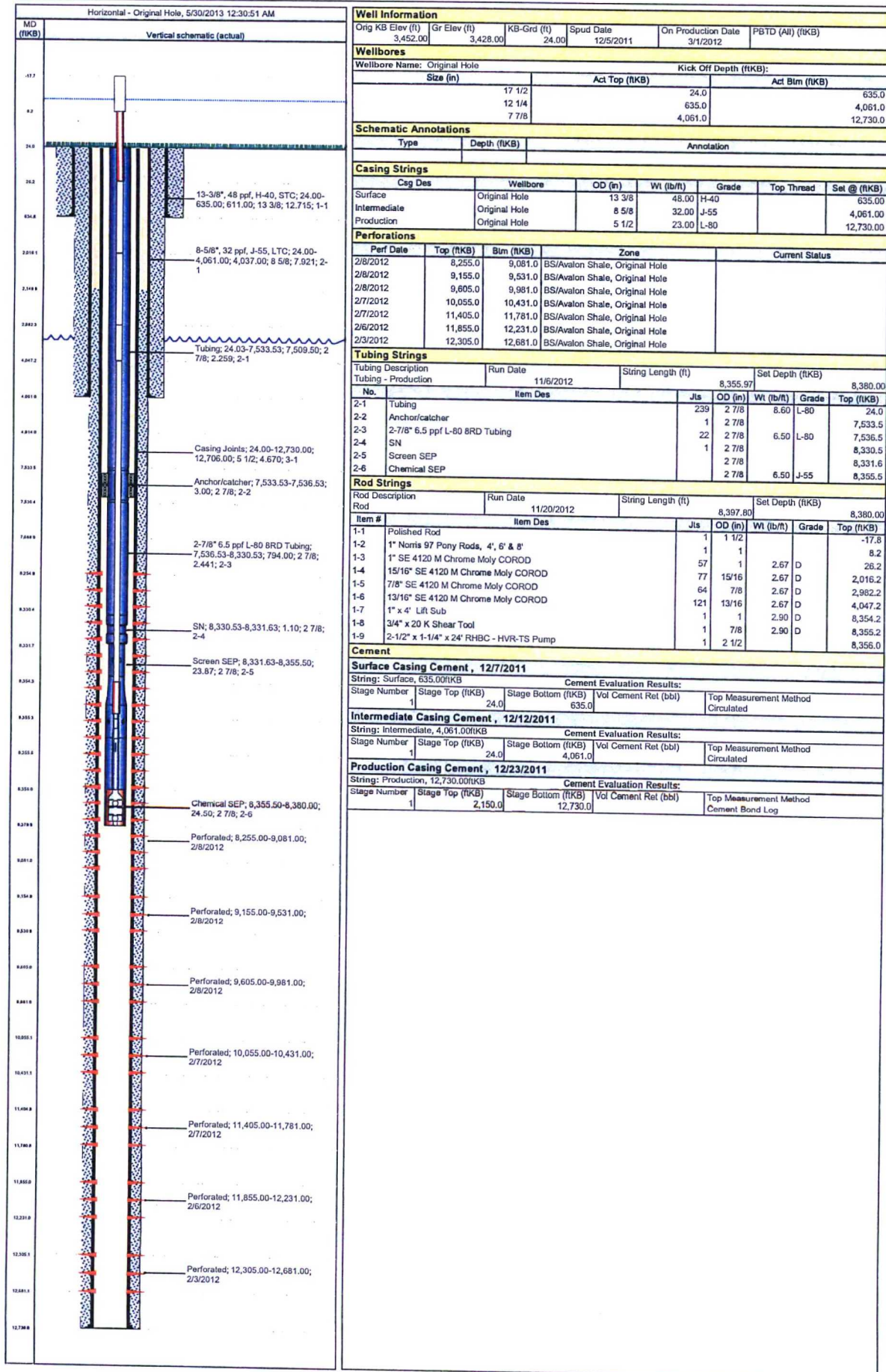
Ul. or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	23	24 S	30 E		406	SOUTH	1925	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
------------------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>SURFACE LOCATION Lot - N 32.21035388' Long - W 103.8493731' NMSPC-- N 440597.784 E 691016.660 (HAD-83)</p> <p>ACTUAL BOTTOM HOLE LOCATION 406' FSL & 1925' FEL</p> <p>PROPOSED BOTTOM HOLE LOCATION Lot - N 32.19710474' Long - W 103.8494283' NMSPC-- N 435777.866 E 691021.220 (HAD-83)</p>	<p>3428.5'</p> <p>3428.8'</p> <p>1080'</p> <p>100'</p> <p>3423.9'</p> <p>3432.1'</p> <p>1ST PERFOR INTERVAL 482' FNL & 1020' FEL</p> <p>Project Area</p> <p>Producing Area</p> <p>350'</p> <p>1980'</p>	<p>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.</p> <p><i>Bryan Arrant</i> 03/02/2012 Signature Date Bryan Arrant Printed Name bryan.arrant@chik.com Email Address</p> <p>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.</p> <p>Date Surveyed Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS 24818</p>
---	---	---

AS DRILLED LAND PLAT

**010.Downhole Profile - Vertical Wells****Well Name: PLU BIG SINKS 23-24-30 USA #1H**
Field: Wildcat - Bone Spring**BOPCO, L.P. - West Texas****Well ID: 30-015-39633****Sect: 23 Town: 24S Rng: 30E County: Eddy State: New Mexico****Surface Location: 100' FNL & 1980' FEL, Sec 23, T24S, R30E**



035.Schematic - Vertical Production

Well Name: PLU BIG SINKS 23-24-30 USA #1H
Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas

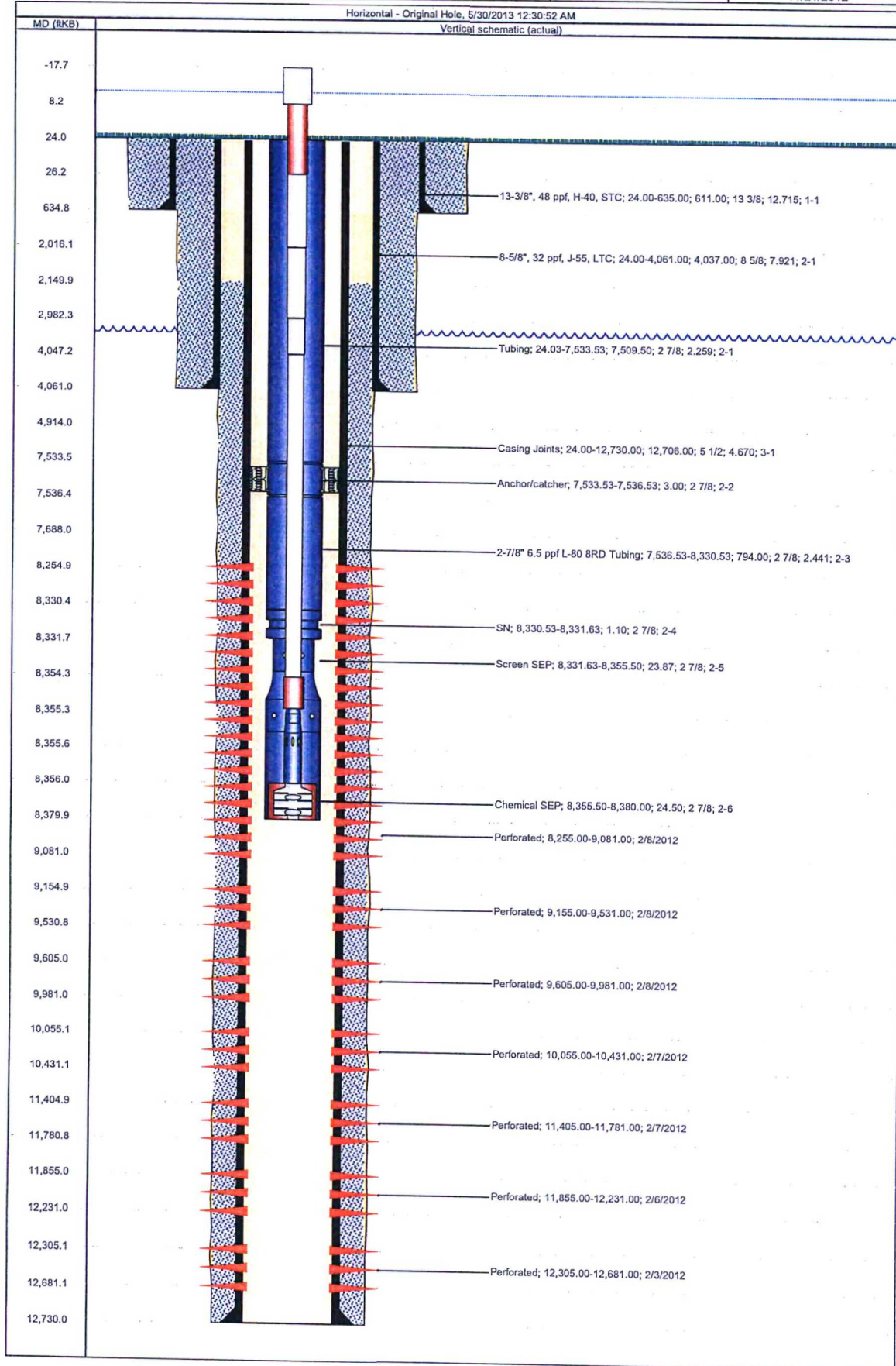
Well ID: 30-015-39633

Sect: 23 Town: 24S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Completion/Workover	Lift Change	Initial Completion	11/6/2012	11/21/2012



ARCHIE EQUATION ESTIMATION OF WATER SATURATION

Well:

Big Sinks 23-24-30 1H

Formation:

Upper Avalon Shale

Parameters

a	1
m	2
n	2
Rw	0.03

Depth Phi Rt Sw BVW

8050	0.2	1373	0.02	0.00
8105	0.17	1243	0.03	0.00
8142	0.23	286	0.04	0.01
8180	0.08	3459	0.04	0.00
8205	0.21	231	0.05	0.01
8212	0.17	899	0.03	0.01
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####

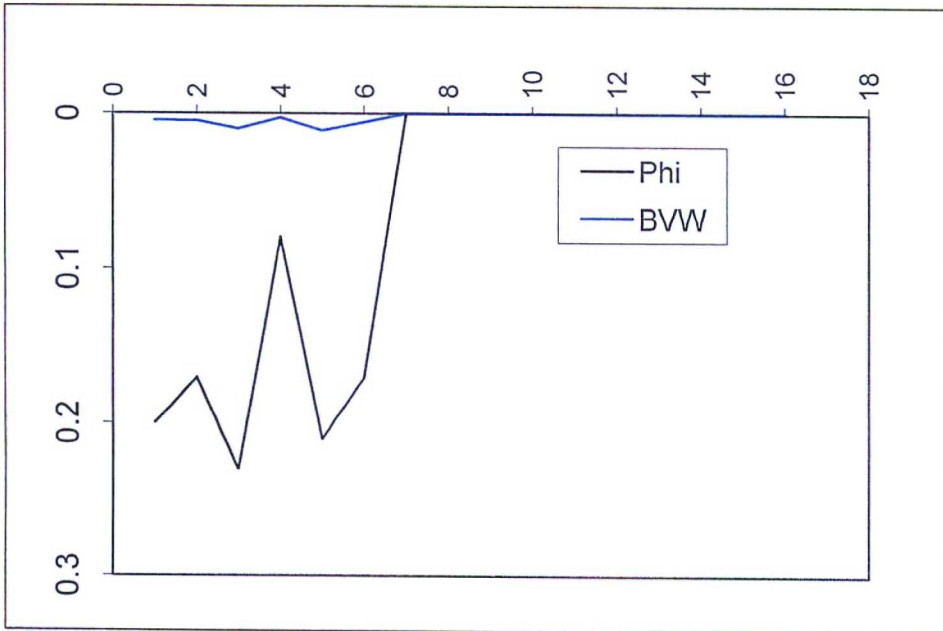
$$Av\phi = 17.6\%$$

$$AvSw = 3.5\%$$

$$NetT = 234'$$

$$Net\ SHALE =$$

$$(Gr > 80 + \phi > 8\% + R_e > 10\% \text{ H}_2\text{S})$$



BHT 150° @ 10,100'

BIG SINKS 23-24-30 1H

UPPER AVALON SHALE

(NO LOG THRU Upper Av. SH. on B.S. 23-24-30)

USED B.S. 22 1H Log)

ARCHIE EQUATION ESTIMATION OF WATER SATURATION

Well:

Big Sinks 23-24-30 1H

Formation:

Upper Avalon Shale

Parameters

a	1
m	2
n	2
Rw	0.03

Depth	Phi	Rt	Sw	BVW
8050	0.2	1373	0.02	0.00
8105	0.17	1243	0.03	0.00
8142	0.23	286	0.04	0.01
8180	0.08	3459	0.04	0.00
8205	0.21	231	0.05	0.01
8212	0.17	899	0.03	0.01
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####
			#####	#####

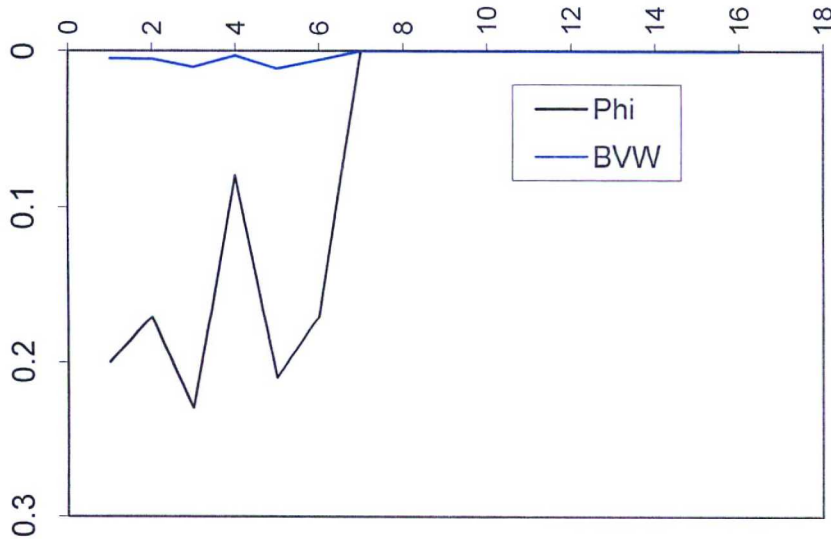
$Av\phi = 17.6\%$

$AvSw = 3.5\%$

$Net = 234'$

$Net\ SHALE =$

$(Gr > 80 + \phi > 8\%$
 $+ R_t > 100\ Hms)$



BHT 150° @ 10,100'

BASS ENTERPRISES
12 Month Status Report - Type/Division
Active and Major Carryover
 (does not include special or closed)

Prepared August 21, 2012



OUTSIDE OPERATED

DEVELOPMENT&EXPLOITATION WELL

Carryover AFE's

WEST TEXAS DIVISION

Bass Net Charges Posted - by Accounting Date

AFE #	AFE Name	WI	Authorized Gross Net	SUP	Carry - In from Prior Months	8/ 2011	9/ 2011	10/ 2011	11/ 2011	12/ 2011	1/ 2012	2/ 2012	3/ 2012	4/ 2012	5/ 2012	6/ 2012	7/ 2012	Total Gross/Net Expended	% Over (-) Under + Authorized	"Y" if Supplement Needed
24855	PLU PIERCE CANYON 16 #1H	0.25	6,150,500	N	2,196,344	4,853,476	0	521,641	368,793	139,190	0	0	-487,017	0	62,028	0	-20,517	7,633,939	24.11%	Y
	CHESAPEAK		1,537,625		549,086	1,213,369	0	130,410	92,198	34,797	0	0	-121,754	0	15,507	0	-5,129	1,908,485		
24903	PENNY PINCHER 21 FED COM #4H 2ND BONE SP	0.20	4,526,858	N		0	0	3,068,398	1,943,506	2,849,654	0	509,803	0	218,071	239,173	0	2,370	8,830,975	95.07%	Y
	CIMAREX		905,372			0	0	613,680	388,701	569,931	0	101,961	0	43,614	47,835	0	474	1,766,195		
24933	PLU BIG SINKS 2-24-30ST #1H	0.25	6,333,900	N		17,143	0	778,021	1,667,807	5,524,016	0	0	1,523,973	0	131,154	0	3,880	9,645,993	52.29%	Y
	CHESAPEAK		1,583,475			4,286	0	194,505	416,952	1,381,004	0	0	380,993	0	32,788	0	970	2,411,498		
24959	PLU BIG SINKS 2-25-30ST #1H	0.25	6,269,400	N		0	0	8,387	375,808	3,030,710	0	0	4,124,265	0	251,997	9,124	-9,124	7,791,166	24.27%	Y
	CHESAPEAK		1,567,350			0	0	2,097	93,952	757,677	0	0	1,031,066	0	62,999	2,281	-2,281	1,947,792		
24985	PLU BIG SINKS 14-25-30 USA #1H	0.25	6,645,400	N		0	0	0	0	1,717,461	0	0	6,122,891	-1,013	728,202	0	46,680	8,614,221	29.62%	Y
	CHESAPEAK		1,661,350			0	0	0	0	429,365	0	0	1,530,723	-253	182,050	0	11,670	2,153,555		
25020	PLU BIG SINK 23-24-30 USA #1H	0.25	6,010,000	N		0	0	0	0	119,530	0	0	3,419,486	0	3,029,479	0	94,507	6,663,001	10.86%	Y
	CHESAPEAK		1,502,500			0	0	0	0	29,882	0	0	854,871	0	757,370	0	23,627	1,665,750		

Current Year AFE's

WEST TEXAS DIVISION

Bass Net Charges Posted - by Accounting Date

AFE #	AFE Name	WI	Authorized Gross Net	SUP	Carry - In from Prior Months	8/ 2011	9/ 2011	10/ 2011	11/ 2011	12/ 2011	1/ 2012	2/ 2012	3/ 2012	4/ 2012	5/ 2012	6/ 2012	7/ 2012	Total Gross/Net Expended	% Over (-) Under + Authorized	"Y" if Supplement Needed
24953	PENNY PINCHER 21 FEDCOM #2H	0.20	4,526,858	N		0	0	1,517	-1,517	0	0	0	0	0	0	0	0		-100.00%	
	CIMAREX		905,372			0	0	303	-303	0	0	0	0	0	0	0	0			
25047	PIERCE CANYON 20-24-30 USA #1H	0.25	5,959,700	N		0	0	0	0	0	0	0	2,683,108	0	4,131,504	0	219,146	7,033,758	18.02%	Y
	CHESAPEAK		1,489,925			0	0	0	0	0	0	0	670,777	0	1,032,876	0	54,786	1,758,439		
25073	PLU BIG SINKS 24-24-30 USA #1H	0.25	7,284,000	N		0	0	0	0	0	0	0	1,611,347	0	3,960,555	0	925,129	6,497,031	-10.80%	
	CHESAPEAK		1,821,000			0	0	0	0	0	0	0	402,837	0	990,139	0	231,282	1,624,258		
25094	PLU BIG SINKS 15-25-30 USA #1H	0.25	7,253,280	N		0	0	0	0	0	0	0	301,962	0	2,475,710	0	2,086,425	4,864,097	-32.93%	
	CHESAPEAK		1,813,320			0	0	0	0	0	0	0	75,491	0	618,927	0	521,606	1,216,024		

BASS ENTERPRISES
Operations Report
12/2012

Prepared January 18, 2013

Property ID 1004609 PLU BIG SINKS 23-24-30 USA #1H

OPERATED PROPERTIES
WEST TEXAS DIVISION
CARLSBAD DISTRICT
NEW MEXICO
PLU-CHK FIELD



ACTIVE PROPERTIES

Wrkg Int 0.50000000
NRI Int 0.38750000
Roy Int 0.08999999

	1/2012	2/2012	3/2012	4/2012	5/2012	6/2012	7/2012	8/2012	9/2012	10/2012	11/2012	12/2012	Month Budget	% of Bud	YTD Actual	YTD Budget	% of Bud	10% Flag
Lease Operating Expenses (8/8)																		
Company Labor	0	0	0	0	0	0	0	0	0	0	1598	1027	0	0	2625	0	0	
Employee Benefits	0	0	0	0	0	0	0	0	0	0	464	289	0	0	753	0	0	
Employee Expenses	0	0	0	0	0	0	0	0	0	0	254	85	0	0	339	0	0	
Contract Labor	0	0	0	319	0	0	0	0	0	0	1273	2205	0	0	3797	0	0	
Contract Services	0	0	0	21239	18708	2224	2724	104	3046	160	627	2869	0	0	51701	0	0	
Maint Mat/Sup	0	0	0	5868	0	0	0	0	0	0	0	2796	0	0	8664	0	0	
Pulling Expense	0	0	0	0	0	0	0	0	0	0	0	2329	0	0	2329	0	0	
Fuel Water Power	0	0	0	5858	0	0	0	0	0	0	0	12321	0	0	18179	0	0	
Purchased Gas Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Treating Chemicals	0	0	0	0	783	0	0	0	0	837	228	5100	0	0	6948	0	0	
Lease Srv & Mnt	0	0	0	0	0	0	5429	0	0	0	387	0	0	0	5816	0	0	
Location & Access	0	0	0	66315	0	0	0	0	0	0	0	5593	0	0	71908	0	0	
Environ Safety	0	0	0	0	1866	0	0	0	0	0	0	0	0	0	1866	0	0	
Alloc Sys & Fac	0	0	0	0	0	0	0	0	0	1646	6604	77362	0	0	85612	0	0	
Alloc Area Expense	0	0	0	0	0	0	0	0	220	231	279	390	0	0	1120	0	0	
Total NLOE (\$)	0	0	0	99599	21357	2224	8153	104	3266	2874	11714	112366	0	0	261657	0	0	
AFEd Expense	0	0	0	0	0	0	0	0	0	0	0	22150	0	0	22150	0	0	
Misc Exp/Rec	0	0	0	897	177663	1144	51724	54965	726	14343	646	-1373	0	0	300735	0	0	
Marketing Exp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Title Exam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total LOE (\$)	0	0	0	100496	199020	3368	59877	55069	3992	17217	12360	133143	0	0	584542	0	0	
Expenses - Bass Share																		
Total LOE (Net)	0	0	0	50248	99510	1684	29938	27535	1996	8608	6180	65561	0	0	291260	0	0	
Ad Valorem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Severance Tax	0	0	0	37102	22021	15998	3479	12849	12020	12856	8838	5870	0	0	131033	0	0	
Haul & Other	0	0	0	3426	4299	4370	1547	3727	3499	3637	2467	1707	0	0	28679	0	0	
Total Net LOE (\$)	0	0	0	90776	125830	22052	34964	44111	17515	25101	17485	73138	0	0	450972	0	0	
Capital Expenditures	0	0	0	0	0	0	0	0	0	0	0	3851	0	0	3851	0	0	
COPAS Overhead	0	0	50	50	50	50	50	50	50	50	50	50	0	0	500	0	0	
AFEd Net Expense	0	0	0	0	0	0	0	0	0	0	0	11075	0	0	11075	0	0	

366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 17, 2015

RECEIVED OGD
2015 JUL 20 P 1:56

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV BS #008H (PLU Big Sinks 14-25-30 #1H)
1st Bone Spring
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1st Bone Spring reservoir. Should you be in agreement that the 1st Bone Spring is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Frank McCreight
FROM: Bryce Bezant
DATE: 1/23/2014
RE: Commercial Determination
PLU Big Sinks 14-25-30 #1H
Poker Lake Unit (1st Bone Spring) Field
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 14-25-30 #1H was drilled in 2011 to a total depth of 13,865' laterally completed in the 1st Bone Spring reservoir. The well is producing from perforations 9,250'-13,830'. On test 2/29/2012 the well flowed at the rate of 346 BOPD, 2074 MCFD, and 623 BWPD. This well has an expected recovery of approximately 92 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs inclusive of water expense were used through December, 2013. Starting January, 2014 operating costs of \$30,000/month plus \$1.25/bbl water expense were used until the economic limit was reached. The Big Sinks 14-25-30 #1H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant

RBB/tah

Cc: Ross Sutton
Andy Morrison
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

ite : 1/31/2014

Lior: 1004608

1:55:12PM

object Name : BOPCO, L.P.
 rtner : All cases
 se Type : LEASE CASE
 chive Set : 1-1-2014

As Of Date : 01/01/2012
 Discount Rate (%) : 5.00
 1004608/PLU BIG SINKS 14-25-30 USA/

Lease Name : 1004608/PLU BIG SINKS 14-25-30 USA/
 Reserv Cat. : Proved Producing
 Field : WILDCAT G-S2530020; BONE SPRING
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

um Oil (Mbbbl) : 0.00
 um Gas (MMcf) : 0.00

Risk: 0.000 Inherited/ 0.000 Compounded
 Sales

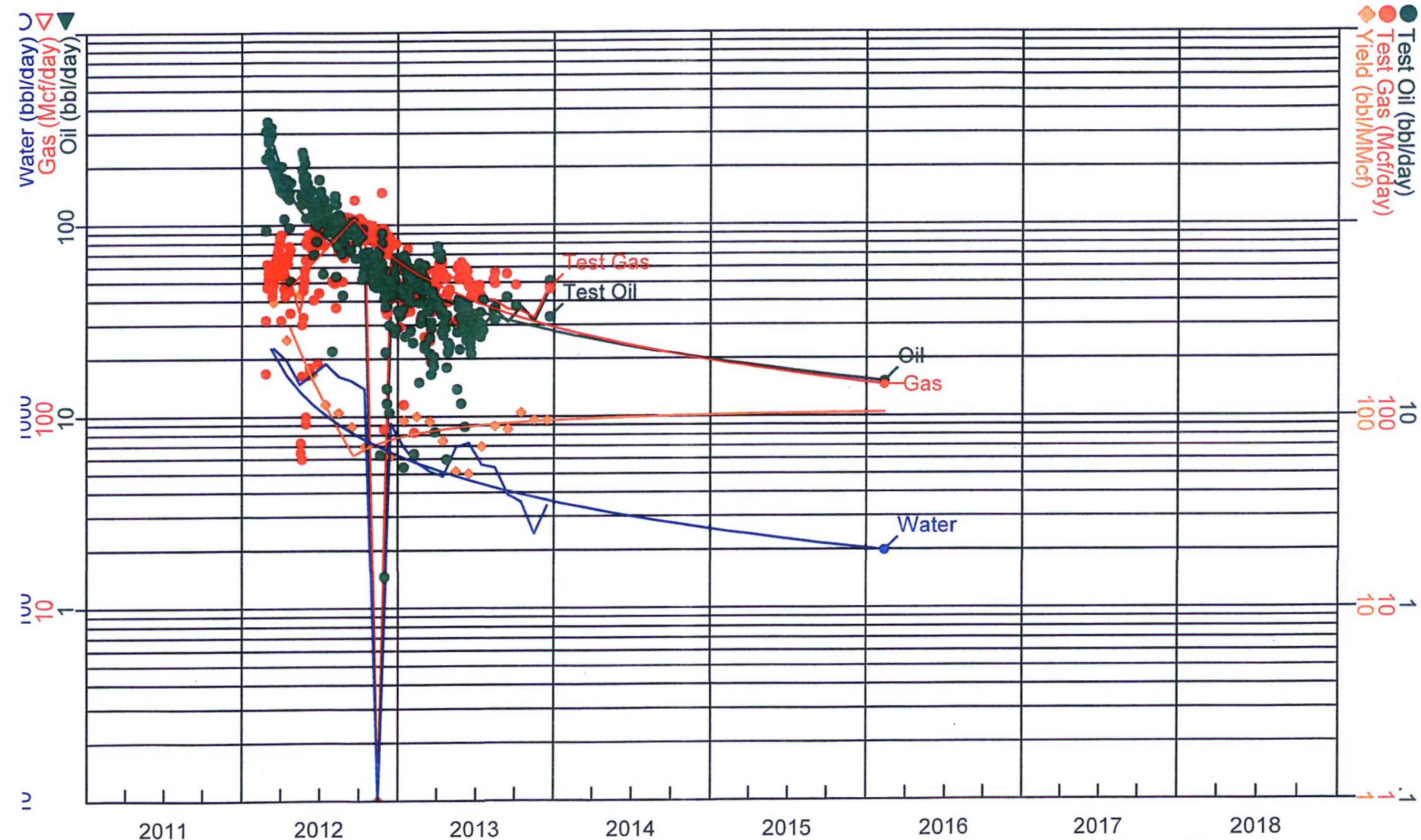
Year	Gross Wet Production		Gross Dry Gas & NGL				
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2012	28.869	188.932	83.130	510.116	22.373	64.426	395.340
2013	11.211	134.727	59.280	363.763	8.689	45.942	281.916
2014	10.209	86.195	37.926	232.727	7.912	29.393	180.364
2015	7.888	61.987	27.274	167.366	6.113	21.138	129.708
2016	6.538	49.156	21.629	132.721	5.067	16.762	102.859
2017	5.605	40.842	17.971	110.274	4.344	13.927	85.462
2018	4.945	35.178	15.478	94.981	3.833	11.996	73.610
2019	4.444	30.999	13.639	83.696	3.444	10.571	64.865
2020	4.058	27.849	12.254	75.192	3.145	9.497	58.274
2021	3.724	25.204	11.090	68.052	2.886	8.595	52.740

em	27.836	180.554	79.444	487.497	21.573	61.569	377.810
otal	115.328	861.624	379.115	2,326.385	89.379	293.814	1,802.949
lt.	115.328	861.624					

Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	91.54	2.65	0.73	2,048.06	170.48	287.02	2,505.56
2013	92.83	3.51	0.73	806.52	161.46	204.67	1,172.65
2014	89.47	3.69	0.73	707.94	108.38	130.94	947.26
2015	84.23	3.84	0.73	514.91	81.11	94.17	690.19
2016	80.19	3.91	0.73	406.30	65.58	74.68	546.55
2017	77.95	3.99	0.73	338.60	55.57	62.05	456.21
2018	76.61	4.08	0.73	293.63	48.95	53.44	396.02
2019	75.71	4.22	0.73	260.73	44.64	47.09	352.46
2020	75.28	4.39	0.73	236.72	41.70	42.31	320.73
2021	74.92	4.57	0.73	216.24	39.32	38.29	293.85
Rem	74.74	5.18	0.73	1,612.48	318.94	274.29	2,205.71
Total	83.27	3.87	0.73	7,442.14	1,136.12	1,308.94	9,887.19

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	131.68	9.46	7,840.35	1,820.81	-7,296.74	-7,296.74	-7,298.95	-7,298.95
2013	97.27	6.93	0.00	893.19	175.27	-7,121.48	161.13	-7,137.83
2014	78.12	5.61	250.00	435.26	178.26	-6,943.22	161.93	-6,975.89
2015	56.93	4.09	0.00	232.02	397.15	-6,546.07	333.22	-6,642.68
2016	45.09	3.24	0.00	210.91	287.31	-6,258.76	229.23	-6,413.44
2017	37.64	2.70	0.00	196.62	219.25	-6,039.51	166.35	-6,247.09
2018	32.68	2.35	0.00	186.64	174.36	-5,865.15	125.83	-6,121.26
2019	29.09	2.09	0.00	179.13	142.15	-5,723.00	97.57	-6,023.68
2020	26.48	1.90	0.00	173.41	118.95	-5,604.06	77.66	-5,946.02
2021	24.26	1.74	0.00	168.54	99.31	-5,504.75	61.67	-5,884.35
Rem	182.20	13.09	0.00	1,600.21	410.21	410.21	212.26	212.26
Total	741.45	53.21	8,090.35	6,096.73	-5,094.54	-5,094.54	-5,672.09	-5,672.09

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.77500000	5.00% :	-5,672.09
Initial Rate :	13,803.00 Mcf/month	Disc. Initial Invest. (m\$) :	8,057.326	9.00% :	-5,992.91
Abandonment :	1,069.16 Mcf/month	Internal ROR (%) :	>1000.0	10.00% :	-6,059.28
Initial Decline :	-621.21 % year b = 0.000	ROI Investment (disc/undisc) :	0.30 / 0.37	12.00% :	-6,178.77
Seg Ratio :	0.25 bbl/Mcf	Years to Payout :	0.00	15.00% :	-6,330.32
End Ratio :	0.16 bbl/Mcf	Abandonment Date :	05/29/2032	20.00% :	-6,527.26
Forecast Start :	04/01/2012			30.00% :	-6,788.72
		Initial	1st Rev.	40.00% :	-6,950.40
		Working Interest :	1.00000000	50.00% :	-7,058.10
		Revenue Interest :	0.77500000	60.00% :	-7,134.10
		Rev. Date :			



1-1-2014 Oil (ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 Rem: 102,885 bbl
 EUR: 102,885 bbl
 3/04/2012 - 12/18/2036
 Qi: 7,810 / Qact: 8,084
 Qf: 98
 D: 99.776 / Dmin: 5.000

1-1-2014 Yield (Formula)
 (Oil) / ((Gas) / 1000)
 Cum: N/A
 Rem: N/A
 EUR: N/A
 03/01/2012 - 12/18/2036
 Qi: 0.000 / Qact: 396.449
 Qf: 110.233

1-1-2014 Gas (ARPs)
 Segment: 1 of 2
 Cum: 0 Mcf
 Rem: 913,747 Mcf
 EUR: 913,747 Mcf
 04/24/2012 - 09/19/2012
 Qi: 14,572 / Qact: 13,803
 Qf: 32,626
 D: -621.210 / Dmin: N/A

1-1-2014 Water (ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 Rem: 1,380,021 bbl
 EUR: 1,380,021 bbl
 03/09/2012 - 12/18/2036
 Qi: 69,224 / Qact: 70,813
 Qf: 1,231
 D: 97.687 / Dmin: 5.000

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU Big Sinks 14-25-30 _____ FORMATION _____ BONE SPRING _____
 LOCATION B P UNIT, 350 FEET FROM SOUTH LINE & 1980 FEET FROM EAST LINE
 SECTION 14 TOWNSHIP 25S RANGE 30E COUNTY Eddy, NEW MEXICO
 SPUD DATE 10/26/2011 COMPLETION DATE 2/21/2012 INITIAL PRODUCTION 2/26/2012
 PERFORATIONS 9250-13830
 BHL: 357' FNL & 1982' FWL SEC 14 T25S R30E

STIMULATION:

ACID _____

 FRACTURE See Attached

POTENTIAL (2/29/2012): 346 BOPD, 2074 MCFPD, 623 BWPD

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED		SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE	
Area (A) proration unit size, acres	160.5	_____	_____	_____
Porosity (Φ), %	7%	_____	_____	_____
Water saturation (Sw), %	22%	_____	_____	_____
Net Thickness (H), ft.	112	_____	_____	_____
Temperature (T), Fahrenheit	136	_____	_____	_____
Bottom Hole pressure (P), psia	4,313	_____	_____	_____
Recovery factor (RF), %	39%	_____	_____	_____
Recoverable gas, BCF *(See eq. below)	4.8	_____	_____	_____

*Sometimes unable to match performance due to volumetric uncertainty and limited drainage in unconventional reservoirs.

Formula = $(7758) (A) (h) (por) (1-Sw)(RF)/Bgi$

Bgi = 0.62

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 12/31/2013 40,080 BBL Oil 323,659 MCF GasINITIAL RATE (qi) 480ECONOMIC LIMIT (ql) 147HYPERBOLIC DECLINE RATE, dy n = 0, d = 100.2%/yrREMAINING MCF (Q) = 180,554ULTIMATE RECOVERABLE MCF 861,624

(Attach plat showing proration unit and participating area.)

ECONOMICGROSS WELL COST \$3,136,141 (to the depth of formation completed)COMPLETION COST \$4,704,211GROSS TOTAL COST \$7,840,352

<u>YEAR</u>	<u>GROSS MCF MMCF</u>	<u>BFIT NET INCOME (\$M)</u>	<u>OPERATING COST (\$M) INCL SEV & AD VAL TAX</u>	<u>5% NET BFIT DISCOUNTED CASH FLOW</u>
ZERO				
1	<u>188.932</u>	<u>2505.6</u>	<u>1962.0</u>	<u>-7299.0</u>
2	<u>134.727</u>	<u>1172.6</u>	<u>997.4</u>	<u>161.1</u>
3	<u>86.195</u>	<u>947.3</u>	<u>519.0</u>	<u>161.9</u>
4	<u>61.987</u>	<u>690.2</u>	<u>293.0</u>	<u>333.2</u>
5	<u>49.156</u>	<u>546.6</u>	<u>259.2</u>	<u>229.2</u>
6	<u>40.842</u>	<u>456.2</u>	<u>237.0</u>	<u>166.4</u>
7	<u>35.178</u>	<u>396.0</u>	<u>221.7</u>	<u>125.8</u>
8	<u>30.999</u>	<u>352.5</u>	<u>210.3</u>	<u>97.6</u>
9	<u>27.849</u>	<u>320.7</u>	<u>201.8</u>	<u>77.7</u>
10	<u>25.204</u>	<u>293.9</u>	<u>194.5</u>	<u>61.7</u>
REMAINDER	<u>180.554</u>	<u>2205.7</u>	<u>1795.5</u>	<u>212.3</u>
TOTAL	<u>861.623</u>	<u>9887.2</u>	<u>6891.4</u>	<u>-5672.1</u>

WELL IS NOT COMMERCIAL

RECEIVED UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APR 12 2012
WELL COMPLETION OR RECOMPLETION REPORT AND LOG
NMOCD ARTESIA

OCD Artesia

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Serial No. NMLC063873A							
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____		6. If Indian, Allottee or Tribe Name _____							
2. Name of Operator CHESAPEAKE OPERATING INC Contact: LYNDEE SONGER E-Mail: lyndee.songer@chk.com		7. Unit or CA Agreement Name and No. 891000303X							
3. Address OKLAHOMA CITY, OK 73154-0496		8. Lease Name and Well No. PLU BIG SINKS 14 25 30 USA 1H							
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface SESW 300FSL 1980FWL At top prod interval reported below SESW 380FSL 1941FWL At total depth NENW 357FNL 1982FWL		9. API Well No. 30-015-39508-00-S1							
14. Date Spudded 10/26/2011		15. Date T.D. Reached 11/22/2011							
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 02/21/2012		17. Elevations (DF, KB, RT, GL)* 3369 GL							
18. Total Depth: MD 13865 TVD 9213		19. Plug Back T.D.: MD TVD							
20. Depth Bridge Plug Set MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) 3369 GL							
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)									
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H40	48.0	0	1362		1500		0	
11.000	8 625 J-55	32.0	0	4083		1500		1362	
7.875	5.500 L-80	20.0	0	13865		2140			
24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
25. Producing Intervals									
Formation	Top	Bottom	Perforated Interval		Size	No. Holes	Perf Status		
A) 1ST BONE SPRING	9250	13830	9250 TO 13830				OPEN		
B)									
C)									
D)									
26. Perforation Record									
27. Acid, Fracture, Treatment, Cement Squeeze, Etc									
Depth Interval		Amount and Type of Material		RECLAMATION					
9250 TO 13830		PROP 4,043,739 # SAND; 88,011 BBLs OF WATER		DUE 8-21-12					
28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
02/26/2012	02/29/2012	24	→	346 0	2074.0	623 0			FLOWERS FROM WELL
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
32/64	SI	440 0	→	346	2074	623		POW	ACCEPTED FOR RECORD
28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						APR 8 2012
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #133992 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc)
CAPTURED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas Depth
				RUSTLER	1161
				TOP SALT	1427
				BASE OF SALT	3821
				BELL CANYON	4050
				CHERRY CANYON	4989
				BRUSHY CANYON	6572
				FIRST BONE SPRING SAND	8816

32. Additional remarks (include plugging procedure):

CONFIDENTIAL

#52 CONT Second Bone Spring Carbonate 9301

LOGS SENT VIA UPS OVERNIGHT

(CHK PN 639973)

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7 Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #133992 Verified by the BLM Well Information System.
For CHESAPEAKE OPERATING INC, sent to the Carlsbad
Committed to AFMSS for processing by DEBORAH MCKINNEY on 03/28/2012 (12DLM0867SE)

Name (please print) LYNDEE SONGERTitle REGULATORY COMPLIANCE ANALYSTSignature (Electronic Submission)Date 03/27/2012

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.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

DISTRICT I
1025 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 18, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-39508	Pool Code 96403	Pool Name Wildcat; Bone Spring
Property Code 38836	Property Name PLU BIG SINKS 14 25 30 USA	Well Number 1H
OGRID No 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3369'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	14	25 S	30 E		300	SOUTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	14	25 S	30 E		357	NORTH	1982	WEST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
------------------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>PROPOSED BOTTOM HOLE LOCATION Lat - N 32.13686046° Long - W 103.8539436° NMSPCE- N 413855.748 E 689722.190 (NAD-83)</p> <p>Actual Bottom Hole Location 357' FNL & 1982' FWL</p>	<p>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.</p> <p><i>Bryan Arrant</i> 03/28/2012 Signature Date Bryan Arrant Printed Name bryan.arrant@chc.com Email Address</p>
	<p>RECEIVED MAR 29 2012 NMCD ARTESIA</p> <p>Penetration Point 380' FSL & 1941' FWL</p> <p>SURFACE LOCATION Lat - N 32.12399766° Long - W 103.8539986° NMSPCE- N 409176.431 E 689726.004 (NAD-83)</p>	<p>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.</p> <p><i>GARY L. JONES</i> Date Surveyed Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS 24811</p>

As Drilled Land Plat

EXHIBIT A-1



Downhole Profile - Vertical Wells

Well Name: PLU BIG SINKS 14-25-30 USA #1H

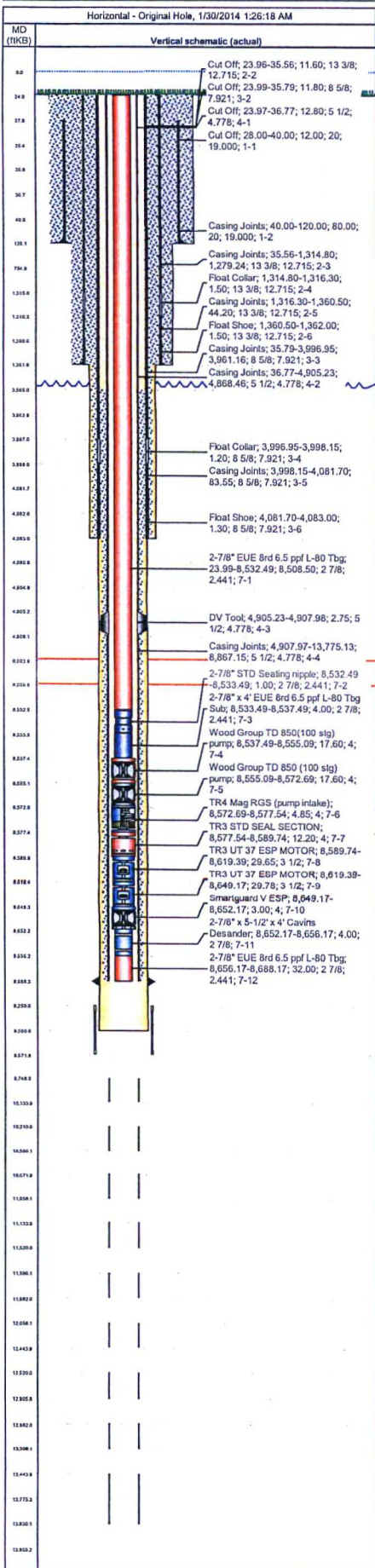
Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas

Well ID: 30-015-39508

Sect: 14 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location:



Well Information									
Orig KB Elev (ft)	Gr Elev (ft)	KB-Grd (ft)	Spud Date	On Production Date	PBTD (All) (ftKB)				
3,393.00	3,369.00	24.00	10/27/2011	2/26/2012					
Wellbore									
Wellbore Name: Lateral			Kick Off Depth (ftKB):						
Size (in)		Act Top (ftKB)			Act Btm (ftKB)				
7 7/8					8,715.0				
13,865.0									
Schematic Annotations									
Type		Depth (ftKB)			Annotation				
Casing Strings									
Csg Des	Wellbore		OD (in)	Wt (lb/ft)	Grade	Top Thread	Set @ (ftKB)		
Production	Lateral		5 1/2	20.00	L-80	LT&C	13,865.00		
Conductor	Original Hole		20	106.50	J-55	Welded	120.00		
Surface	Original Hole		13 3/8	48.00	H-40	ST&C	1,362.00		
Intermediate	Original Hole		8 5/8	32.00	J-55	LT&C	4,083.00		
Perforations									
Perf Date	Top (ftKB)	Btm (ftKB)	Zone			Current Status			
1/12/2012	9,250.0	9,672.0	Bone Spring, Original Hole			Open			
1/12/2012	9,748.0	10,134.0	Bone Spring, Original Hole			Open			
1/12/2012	10,210.0	10,596.0	Bone Spring, Original Hole			Open			
1/11/2012	10,672.0	11,058.0	Bone Spring, Original Hole			Open			
1/11/2012	11,134.0	11,520.0	Bone Spring, Original Hole			Open			
1/11/2012	11,596.0	11,982.0	Bone Spring, Original Hole			Open			
1/10/2012	12,058.0	12,444.0	Bone Spring, Original Hole			Open			
1/9/2012	12,520.0	12,906.0	Bone Spring, Original Hole			Open			
1/9/2012	12,982.0	13,368.0	Bone Spring, Original Hole			Open			
1/5/2012	13,444.0	13,830.0	Bone Spring, Original Hole			Open			
Tubing Strings									
Tubing Description		Run Date		String Length (ft)		Set Depth (ftKB)			
Tubing - Production		5/17/2013		8,664.28		8,688.27			
No.	Item Des			Jts	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	
7-1	2-7/8" EUE 8rd 6.5 ppf L-80 Tbg			267	2 7/8	6.50	L-80	24.0	
7-2	2-7/8" STD Seating nipple			1	2 7/8			8,532.5	
7-3	2-7/8" x 4" EUE 8rd 6.5 ppf L-80 Tbg Sub			1	2 7/8			8,533.5	
7-4	Wood Group TD 850(100 slg) pump			1	4			8,537.5	
7-5	Wood Group TD 850 (100 slg) pump			1	4			8,555.1	
7-6	TR4 Mag RGS (pump intake)			1	4			8,572.7	
7-7	TR3 STD SEAL SECTION			1	4			8,577.5	
7-8	TR3 UT 37 ESP MOTOR			1	3 1/2			8,589.7	
7-9	TR3 UT 37 ESP MOTOR			1	3 1/2			8,619.4	
7-10	Smartguard V ESP			1	4			8,649.2	
7-11	2-7/8" x 5-1/2" x 4" Cavins Desander			1	2 7/8			8,652.2	
7-12	2-7/8" EUE 8rd 6.5 ppf L-80 Tbg			1	2 7/8	6.50	L-80	8,656.2	
7-13	2-7/8" Bull plug & collar			1	2 7/8			8,688.2	
Cement									
Conductor Cement , 10/20/2011									
String: Conductor, 120.00ftKB			Cement Evaluation Results:						
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbf)		Top Measurement Method				
1	28.0	120.0			Circulated				
Surface Casing Cement , 10/28/2011									
String: Surface, 1,362.00ftKB			Cement Evaluation Results:						
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbf)		Top Measurement Method				
2	24.0	1,362.0			Circulated				
Intermediate Casing Cement , 10/30/2011									
String: Intermediate, 4,083.00ftKB			Cement Evaluation Results:						
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbf)		Top Measurement Method				
3	24.0	4,083.0			Volume Calculations				
Production Casing Cement , 11/1/2011									
String: Production, 13,865.00ftKB			Cement Evaluation Results:						
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbf)		Top Measurement Method				
1	4,905.0	13,865.0			Returns to Surface				
Fluid		Amount (sacks)	Class		Dens (lb/gal)		Yield (ft ³ /sack)		
Lead		10	Poz 35/65		12.40		2.06		
Tail		31			14.50		1.27		
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbf)		Top Measurement Method				
2	3,565.0	4,905.0			Volume Calculations				
Fluid		Amount (sacks)	Class		Dens (lb/gal)		Yield (ft ³ /sack)		
Lead		4	C		12.40		2.18		
Tail		2			14.80		1.33		



Schematic - Vertical Production

Well Name: PLU BIG SINKS 14-25-30 USA #1H
Field: Wildcat - Bone Spring

BOPCO, L.P. - West Texas

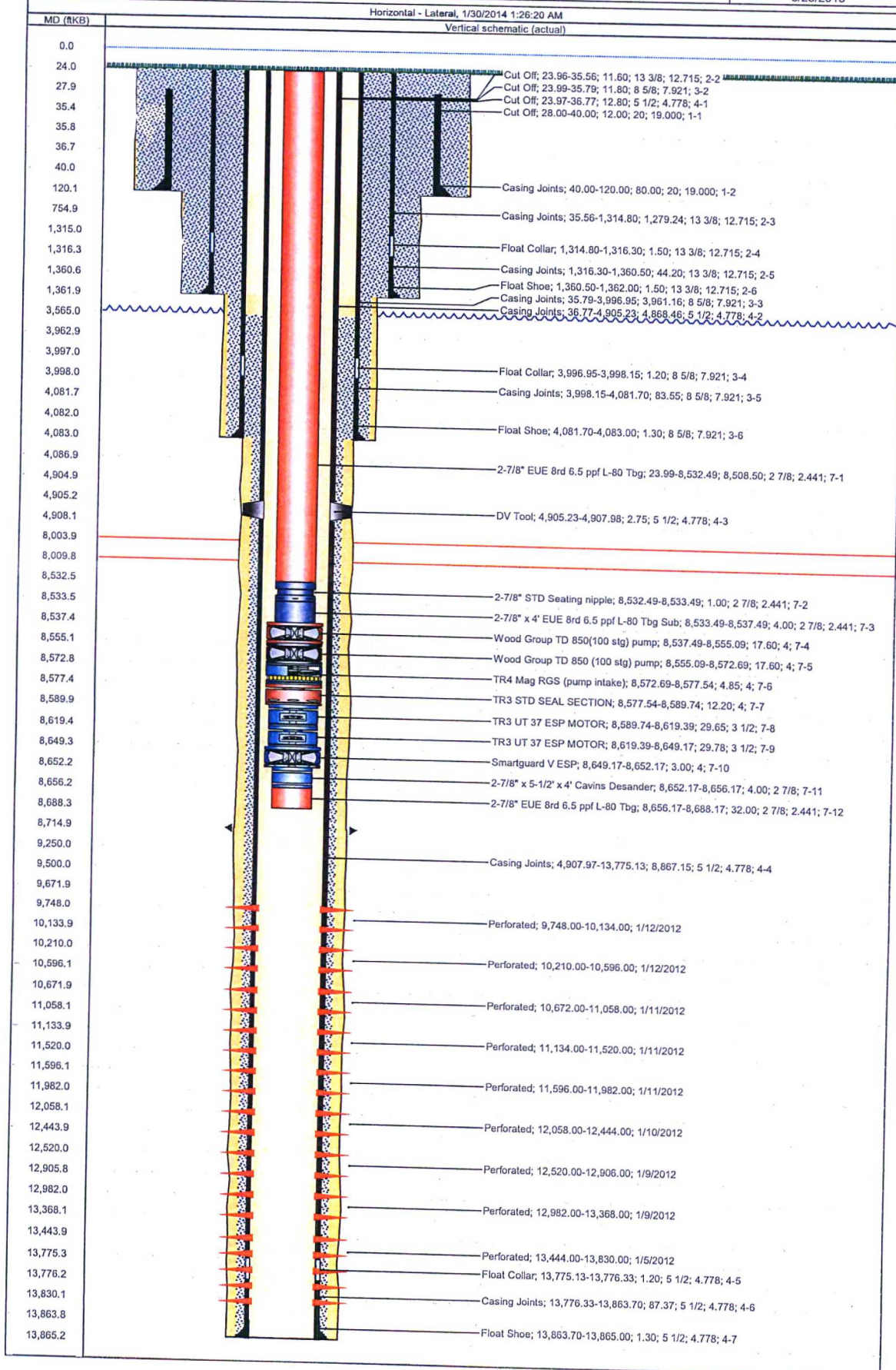
Well ID: 30-015-39508

Sect: 14 Town: 25S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Maintenance	Sub Pump	Pump Repair	8/21/2013	8/23/2013



366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 17, 2015

RECEIVED OGD

2015 JUL 20 P 1:56

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV PC #009H (PLU Pierce Canyon 16 #1H)
Lower Avalon
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon reservoir. Should you be in agreement that the Lower Avalon is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Frank McCreight
FROM: Bryce Bezant
DATE: 1/21/2014
RE: Commercial Determination
PLU Pierce Canyon 16 #1H
Poker Lake Unit (Bone Spring) Field
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Pierce Canyon 16 #1H was drilled in 2011 to a total depth of 12,992' laterally completed in the Lower Avalon reservoir. The well is producing from perforations 8,450'-12,972'. On test 9/02/2011 the well flowed at the rate of 330 BOPD, 2528 MCFD, and 1090 BWPD. This well has an expected recovery of approximately 114 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs from the LIOR were used from inception through December, 2013. Starting January, 2014 the forecasted operating expenses are \$30,000/month plus \$1.25/bbl water until the economic limit is reached. The Pierce Canyon 16 #1H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant

RBB/tah

Cc: Ross Sutton
Tom McCarthy
Andy Morrison
Steve Johnson

ECONOMIC PROJECTION

Date : 1/21/2014

Lior: 1004409

2:01:58PM

Project Name : BOPCO, L.P.
 Partner : All cases
 Lease Type : LEASE CASE
 Archive Set : 1-1-2014

As Of Date : 03/01/2011
 Discount Rate (%) : 5.00

Lease Name : 1004409/PLU PIERCE CANYON 16 STA
 Reserv Cat. : Proved Producing
 Field : CORRAL CANYON; BONE SPRING
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

1004409/PLU PIERCE CANYON 16 STATE/

Sum Oil (Mbbbl) : 0.00
 Sum Gas (MMcf) : 0.00

Risk: 0.000 Inherited/ 0.000 Compounded
 Sales

Year	Gross Wet Production		Gross Dry Gas & NGL				
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2011	18.735	110.663	62.746	298.790	14.051	47.059	224.093
2012	25.719	357.956	202.961	962.994	19.289	152.221	722.246
2013	9.798	180.424	102.300	487.145	7.349	76.725	365.359
2014	5.647	59.775	33.892	161.392	4.235	25.419	121.044

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	59.899	708.818	401.900	1,910.322	44.924	301.425	1,432.742
Jlt.	59.899	708.818					

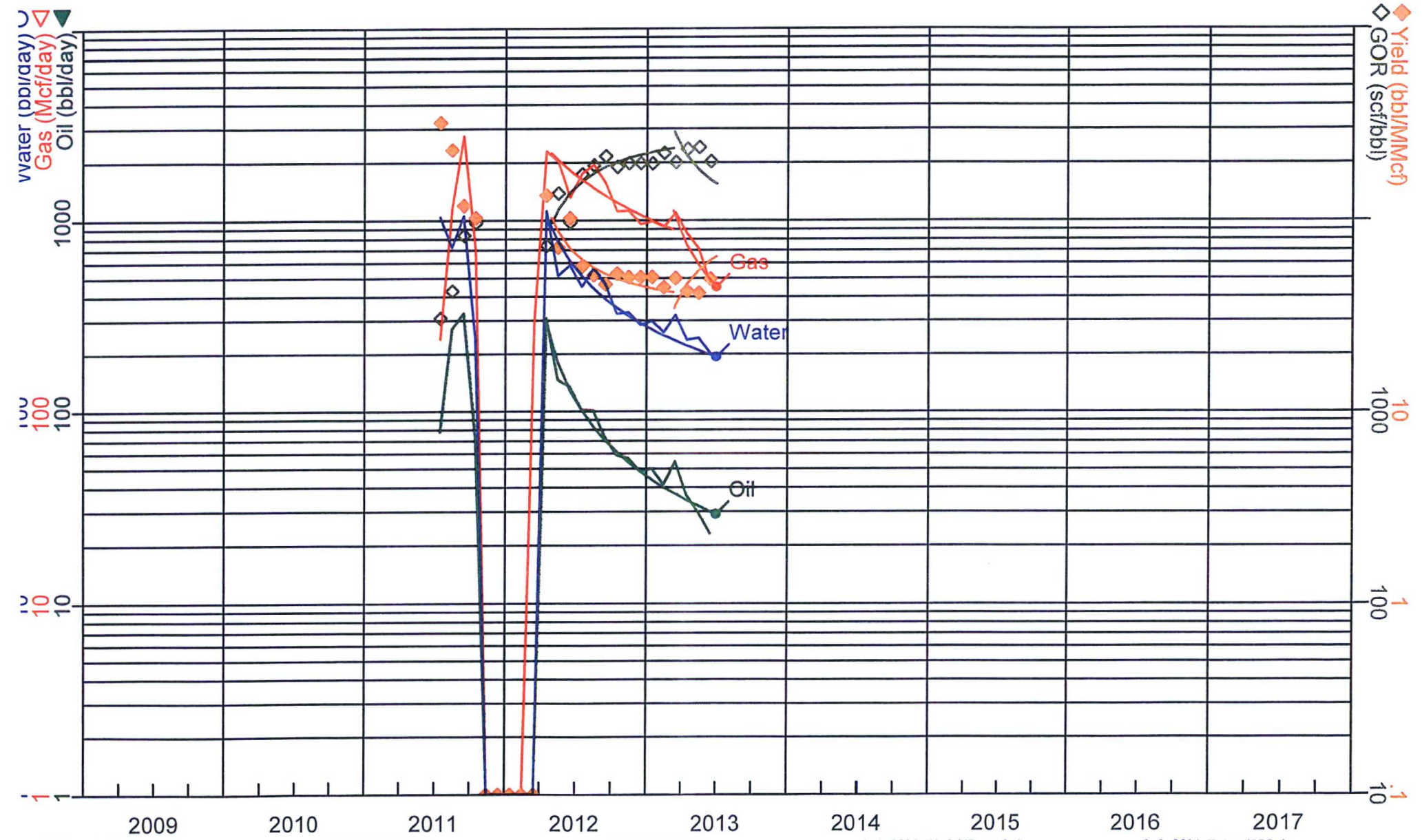
Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2011	82.93	3.88	0.73	1,165.21	182.40	162.69	1,510.30
2012	89.74	2.57	0.73	1,731.06	390.94	524.35	2,646.35
2013	91.63	3.49	0.73	673.38	267.59	265.25	1,206.22
2014	89.72	3.66	0.73	379.95	93.15	87.88	560.98

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	87.92	3.10	0.73	3,949.60	934.08	1,040.17	5,923.85

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2011	124.27	8.98	7,049.82	279.11	-5,951.87	-5,951.87	-5,890.25	-5,890.25
2012	220.23	15.60	0.00	977.24	1,433.29	-4,518.58	1,334.81	-4,555.45
2013	101.31	7.10	250.00	427.65	420.17	-4,098.41	380.32	-4,175.13
2014	46.58	3.32	0.00	388.24	122.84	-3,975.58	104.91	-4,070.21

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	492.38	34.99	7,299.82	2,072.23	-3,975.58	-3,975.58	-4,070.21	-4,070.21

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.75000000		
Initial Rate :	59,576.00 Mcf/month	Disc. Initial Invest. (m\$) :	7,180.324	5.00% :	-4,070.21
Abandonment :	4,294.61 Mcf/month	Internal ROR (%) :	>1000.0	9.00% :	-4,136.69
Initial Decline :	82.32 % year b = 1.000	ROIInvestment (disc/undisc) :	0.43 / 0.46	10.00% :	-4,152.11
Beg Ratio :	0.14 bbl/Mcf	Years to Payout :	0.00	12.00% :	-4,181.58
End Ratio :	0.10 bbl/Mcf	Abandonment Date :	11/24/2014	15.00% :	-4,222.49
Forecast Start :	04/01/2012			20.00% :	-4,282.43
		Initial	1st Rev.	30.00% :	-4,374.86
		Working Interest :	0.00000000	40.00% :	-4,436.16
		Revenue Interest :	0.75000000	50.00% :	-4,471.84
		Rev. Date :		60.00% :	-4,486.41



1-2014 Oil(ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 89,179 bbl
EUR: 89,179 bbl
1/20/2012 - 07/20/2033
Qi: 8,181 / Qact: 8,046
Qf: 55
D: 99.900 / Dmin: 5.000
R: 1.00000

1-1-2014 GOR(Formula)
{(Gas) x 1000} / {Oil}
Cum: N/A
Rem: N/A
EUR: N/A
07/01/2011 - 07/20/2033
Qi: 0 / Qact: 3,088
Qf: 10,276

1-1-2014 Gas(ARPs)
Segment: 1 of 2
Cum: 0 Mcf
Rem: 992,070 Mcf
EUR: 992,070 Mcf
04/28/2012 - 03/09/2013
Qi: 67,970 / Qact: 59,576
Qf: 27,157
D: 82.316 / Dmin: 5.000
R: 1.00000

1-1-2014 Yield(Formula)
{Oil} / {(Gas) / 1000}
Cum: N/A
Rem: N/A
EUR: N/A
07/01/2011 - 07/20/2033
Qi: 0.000 / Qact: 323.852
Qf: 97.317

1-1-2014 Water(ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 571,016 bbl
EUR: 571,016 bbl
04/16/2012 - 07/20/2033
Qi: 32,131 / Qact: 29,028
Qf: 580
D: 99.000 / Dmin: 5.000
R: 1.20000

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU Pierce Canyon 16 #1H _____ FORMATION _____ LOWER AVALON _____
 LOCATION _____ B _____ P _____ UNIT, _____ 330 _____ FEET FROM SOUTH LINE & _____ 330 _____ FEET FROM EAST LINE _____
 SECTION _____ 16 _____ TOWNSHIP _____ 25S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____, NEW MEXICO _____
 SPUD DATE 4/22/2011 _____ COMPLETION DATE 6/27/2011 _____ INITIAL PRODUCTION _____ 7/21/2011 _____
 PERFORATIONS _____ 8450-12972 _____
 BHL: 350' FNL & 890' FEL SEC 16 T25S R30E _____
 STIMULATION:

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (40788); 330 BOPD, 2528 MCFPD, 1090 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	160	
Porosity (Φ), %	19%	
Water saturation (S_w), %	17%	
Net Thickness (H), ft.	81	
Temperature (T), Fahrenheit	170	
Bottom Hole pressure (P), psia	4,723	
Recovery factor (RF), %	68%	
Recoverable gas, BCF *(See eq. below)	17.2	

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $(7758) (A) (h) (por) (1-S_w)(RF)/B_{gi}$

B_{gi} = 0.61 RB/MSCF

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 3/31/2013 48,031 BBL Oil 541,166 MCF GasINITIAL RATE (qi) 3890 MCFDECONOMIC LIMIT (qi) 10 MCFDHYPERBOLIC DECLINE RATE, dy n = 1.2, d = 99.98%/yrREMAINING MCF (Q) = 0ULTIMATE RECOVERABLE MCF 708,818

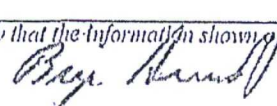
(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,196,344 (to the depth of formation completed)COMPLETION COST \$4,853,476GROSS TOTAL COST \$7,049,820

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	110.663	1510.3	415.4	-5890.3
2	357.956	2646.4	1213.1	1334.8
3	180.424	1206.2	536.1	380.3
4	59.775	561.0	438.1	104.9
5			0.0	
6			0.0	
7			0.0	
8			0.0	
9			0.0	
10				
REMAINDER			0.0	
TOTAL	708.818	5923.9	2602.6	-4070.2

WELL IS NOT COMMERCIAL

Submit To Appropriate District Office Two Copies District I 1625 N. Trench Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Huerfano Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505		Form C-105 July 17, 2008	
		1. WELL API NO.		30-045-37375	
		2. Type of Lease		<input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> FED/INDIAN	
		3. State Oil & Gas Lease No.			
WELL COMPLETION OR RECOMPLETION REPORT AND LOG					
4. Reason for filling:		5. Lease Name or Unit Agreement Name			
<input checked="" type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input type="checkbox"/> C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)		PLU PIERCE CANYON 16 ST			
7. Type of Completion:		6. Well Number:			
<input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input type="checkbox"/> OTHER		1H			
8. Name of Operator		9. OGRID			
Chesapeake Operating, Inc.		147179			
10. Address of Operator:		11. Pool name or Wildcat			
P.O. Box 18496 Oklahoma City, OK 73154		WILDCAT; BONE SPRING			
12. Location	Unit Ltr	Section	Township	Range	Lot
Surface:	P	16	25S	30E	
11H:	A	16	25S	30E	
13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released	16. Date Completed (Ready to Produce)	17. Elevations (DP and RKB, RT, GR, etc.)	
04/22/2011	05/16/2011	05/18/2011	06/27/2011	3289' GR	
18. Total Measured Depth of Well		19. Plug Back Measured Depth		20. Was Directional Survey Made?	
12992'		12992'		YES	
21. Type Electric and Other Logs Run		Mud Log			
22. Producing Interval(s), of this completion - Top, Bottom, Name					
8450'-12972'; Bone Spring					
23. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48	1072'	17 1/2"	343 sxs	
8 5/8"	32	3881'	11"	1300 sxs	
5 1/2"	23	12992'	8 3/4"	2110 sxs	
24. LINER RECORD					
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	
25. TUBING RECORD					
SIZE	DEPTH SET	PACKER SET			
2 7/8"	7817'	7826'			
26. Perforation record (interval, size, and number)					
8450'-12972'; 4 spf, 480 shots total.					
27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.					
DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED			
8450'-12972'		4,259,220 gals fresh water			
		4,895,232 lbs. sand			
		61,532 gals 15% HCL			
28. PRODUCTION					
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)		Well Status (Prod. or Shut-in)	
07/21/2011		Sub-Pump		Prod.	
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF
09/02/2011	24	30/64		330	2528
Water - Bbl.	Gas - Oil Ratio				
1090					
Flow Tubing Press. 960	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.
			330	2528	2528
29. Disposition of Gas (Sold, used for fuel, vented, etc.)					30. Test Witnessed by
Sold					
31. List Attachments					
C-104; Well-bore Schematic; Directional-Surveys; Electric Logs, Conf. Request					
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.					
33. If an on-site burial was used at the well, report the exact location of the on-site burial:					
Latitude Longitude NAD 1927 1983					
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief					
Signature		Printed Name		Title	
		Bryan Arrant		Sr. Regulatory Compl. Sp.	
				Date 10/5/2011	
E-mail Address bryan.arrant@chk.com					

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy 988'	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt 1315'	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt 3869'	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzie
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinbry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs 7680'	T. Todillo	
T. Abo	T.	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

OIL OR GAS
SANDS OR ZONES

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet

No. 2, from.....to.....feet

No. 3, from.....to.....feet

LITHOLOGY RECORD (Attach additional sheet if necessary)

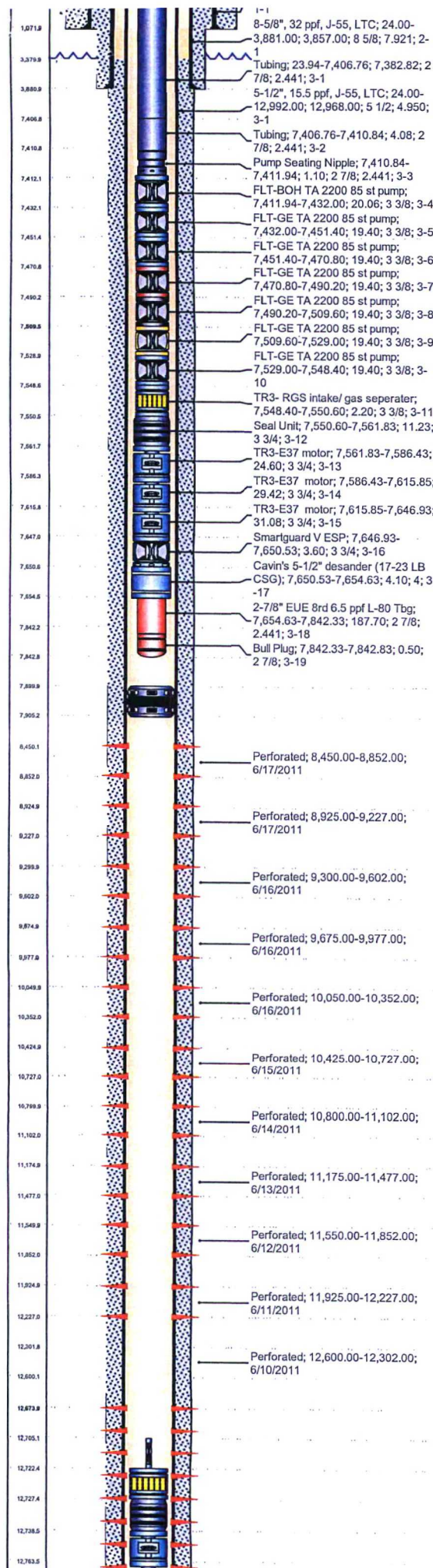
From	To	Thickness In Feet	Lithology

PLU Pierce Canyon 1G #1H
 330' FSL & 330' FEL
 Section 16, T-25-S, R-30-E
 30015373750000

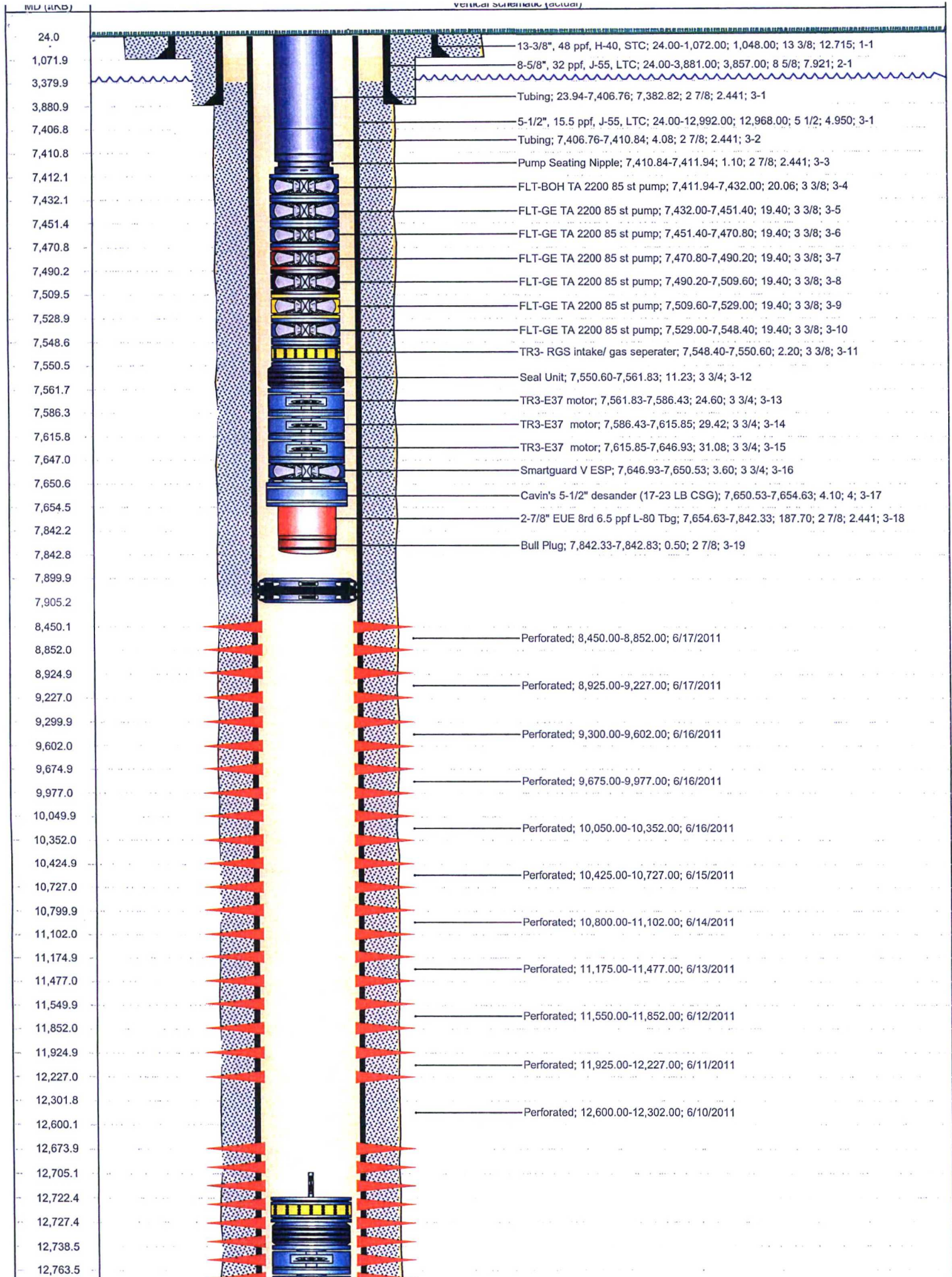
TOP	DEPTH
Rustler	988
Top of Salt	1315
Base of Salt	3869
Bell Canyon	4001
Cherry Canyon	4842
Brushy Canyon	6041
First Bone Spring Carbonate	7680
First Bone Spring Sand	8625
Second Bone Spring Carbonate	9078
Third Bone Spring Carbonate	9786

Lithology

From	To	
1310	3870	Anhydrite and Salt
3870	4730	Sand and Shale with minor Limestone
4730	5080	Sand with some Limestone and Shale
5080	7680	Sand and Shale with minor Limestone
7680	8620	Limestone and shale with minor Sands
8620	9070	Sand with some Limestone and Shale
9070	TD	Limestone and shale with minor Sands



Size (in)		Act Top (ftKB)		Act Btm (ftKB)		
17 1/2		24.0		1,072.0		
11		1,072.0		3,881.0		
8 3/4		3,881.0		12,992.0		
Schematic Annotations						
Type		Depth (ftKB)	Annotation			
Casing Strings						
Csg Des	Wellbore	OD (in)	Wt (lb/ft)	Grade	Top Thread	Set @ (ftKB)
Surface	Original Hole	13 3/8	48.00	H-40		1,072.00
Intermediate	Original Hole	8 5/8	32.00	J-55		3,881.00
Production	Original Hole	5 1/2	23.00	L-80		12,992.00
Perforations						
Perf Date	Top (ftKB)	Btm (ftKB)	Zone		Current Status	
6/17/2011	8,450.0	8,852.0	Bone Spring, Original Hole		Active (8,450.0 - 8,852.0)	
6/17/2011	8,925.0	9,227.0	Bone Spring, Original Hole		Active (8,925.0 - 9,227.0)	
6/16/2011	9,300.0	9,602.0	Bone Spring, Original Hole		Active (9,300.0 - 9,602.0)	
6/16/2011	9,675.0	9,977.0	Bone Spring, Original Hole		Active (9,675.0 - 9,977.0)	
6/16/2011	10,050.0	10,352.0	Bone Spring, Original Hole		Active (10,050.0 - 10,352.0)	
6/15/2011	10,425.0	10,727.0	Bone Spring, Original Hole		Active (10,425.0 - 10,727.0)	
6/14/2011	10,800.0	11,102.0	Bone Spring, Original Hole		Active (10,800.0 - 11,102.0)	
6/13/2011	11,175.0	11,477.0	Bone Spring, Original Hole		Active (11,175.0 - 11,477.0)	
6/12/2011	11,550.0	11,852.0	Bone Spring, Original Hole		Active (11,550.0 - 11,852.0)	
6/11/2011	11,925.0	12,227.0	Bone Spring, Original Hole		Active (11,925.0 - 12,227.0)	
6/10/2011	12,600.0	12,302.0	Bone Spring, Original Hole		Active (12,600.0 - 12,302.0)	
6/9/2011	12,674.0	12,972.0	Bone Spring, Original Hole		Active (12,674.0 - 12,972.0)	
Tubing Strings						
Tubing Description		Run Date	String Length (ft)		Set Depth (ftKB)	
Tubing - Production		8/10/2012	7,818.89		7,842.83	
No.	Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)
3-1	Tubing	234	2 7/8	6.50	L-80	23.9
3-2	Tubing	1	2 7/8	6.50	L-80	7,406.8
3-3	Pump Seating Nipple	1	2 7/8	6.50	L-80	7,410.8
3-4	FLT-BOH TA 2200 85 st pump	1	3 3/8			7,411.9
3-5	FLT-GE TA 2200 85 st pump	1	3 3/8			7,432.0
3-6	FLT-GE TA 2200 85 st pump	1	3 3/8			7,451.4
3-7	FLT-GE TA 2200 85 st pump	1	3 3/8			7,470.8
3-8	FLT-GE TA 2200 85 st pump	1	3 3/8			7,490.2
3-9	FLT-GE TA 2200 85 st pump	1	3 3/8			7,509.6
3-10	FLT-GE TA 2200 85 st pump	1	3 3/8			7,529.0
3-11	TR3- RGS intake/ gas seperater	1	3 3/8			7,548.4
3-12	Seal Unit	2	3 3/4			7,550.6
3-13	TR3-E37 motor	1	3 3/4			7,561.8
3-14	TR3-E37 motor	1	3 3/4			7,586.4
3-15	TR3-E37 motor	1	3 3/4			7,615.9
3-16	Smartguard V ESP	1	3 3/4			7,646.9
3-17	Cavin's 5-1/2" desander (17-23 LB CSG)	1	4			7,650.5
3-18	2-7/8" EUE 8rd 6.5 ppf L-80 Tbg	6	2 7/8	6.50	L-80	7,654.6
3-19	Bull Plug	1	2 7/8			7,842.3
Other Strings						
String Description		Run Date	String Length (ft)		Set Depth (ftKB)	
Fish		2/24/2012	287.09		12,992.00	
No.	Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)
1-1	ESP - GE TD 1750 100 st pump	1	0.0			12,704.9
1-2	ESP - TR4 Mag 2 GE intake/ sep	1	4			12,722.5
1-3	TR 387 DBG seal unit (tanduern)	2	3.87			12,727.4
1-4	E37 TR3 UT GE (motor)	1	3.87			12,738.6
1-5	E37 TR3 UT GE (motor)	1	3.87			12,763.4
1-6	Smartguard V ESP	1	3.87			12,794.7
1-7	Cavins desander	1	3.87			12,797.7
1-8	2-7/8" 6.5 ppf L-80 8RD Tubing	1	2 7/8	6.50	L-80	12,802.2
1-9	Bull Plug	1	2 7/8			12,991.5
Other Downhole Equipment						
Run Date	Des		OD (in)	Top (ftKB)	Btm (ftKB)	
2/24/2012	Weatherford arrow packer		4 3/4	7,900.00	7,905.30	
Cement						
Surface Casing Cement , 4/24/2011						
String: Surface, 1,072.00ftKB						
Cement Evaluation Results:						
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method		
	24.0	1,072.0		Circulated		
Fluid		Amount (sacks)	Class	Dens (lb/gal)	Yield (ft³/sack)	
Lead		343	C			
Intermediate Casing Cement , 4/28/2011						
String: Intermediate, 3,881.00ftKB						
Cement Evaluation Results:						
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method		
	24.0	3,881.0		Circulated		
Fluid		Amount (sacks)	Class	Dens (lb/gal)	Yield (ft³/sack)	
Lead		1,300	C			
Production Casing Cement , 5/18/2011						
String: Production, 12,992.00ftKB						
Cement Evaluation Results:						
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method		
1	3,380.0	12,992.0		Tagged		
Fluid		Amount (sacks)	Class	Dens (lb/gal)	Yield (ft³/sack)	
Lead		2,110	C			



DISTRICT I

1825 N. French Dr., Hobbs, NM 88240

DISTRICT II

1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised July 16, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☒ AMENDED REPORT

API Number 30-015-37375	Pool Code 96403	Pool Name Wildcat; Bone Spring
Property Code 37900	Property Name PLU PIERCE CANYON "16" STATE	Well Number 1H
OGRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3289'

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	16	25 S	30 E		330	SOUTH	330	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	25 S	30 E		350	NORTH	890	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
------------------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>PROPOSED BOTTOM HOLE LOCATION Lat - N 32.136705335° Long - W 103.880465864° NMSPCE - N 413763.79 E 681512.96 (NAD-83)</p>	<p>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. Signature: <i>Bryan Arrant</i> Date: 04/19/2011 Printed Name: bryan.arrant@chk.com Email Address:</p>
	<p>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. Date Surveyed: 04/15/2011 Signature & Seal of Professional Surveyor: <i>Gary L. Jones</i> Certificate No. Gary L. Jones 7977 BASIN SURVEYS</p>	

366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 17, 2015

RECEIVED OGD

2015 JUL 20 P 1:56

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV RR #004H (PLU Ross Ranch 20 #1H)
Lower Avalon
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Lower Avalon reservoir. Should you be in agreement that the Lower Avalon is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Frank McCreight
FROM: Bryce Bezant
DATE: 1/16/2014
RE: Commercial Determination
PLU Ross Ranch 20 #1H
Poker Lake Unit (Lower Avalon) Field
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Ross Ranch 20 #1H was drilled in 2011 to a total depth of 12,740' laterally completed in the Lower Avalon reservoir. The well is producing from perforations 8,300'-12,725'. On test 5/13/2011 the well flowed at the rate of 114 BOPD, 0 MCFD, and 1098 BWPD. This well has an expected recovery of approximately 96.7MBOE (13:1 mcf/bbl) from the current completion.

Input for the capital costs came from the AFE report and operating costs from the LIOR statement, which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. The Ross Ranch 20 #1H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant

RBB/tah

Cc: Ross Sutton
Andy Morrison
Steve Johnson

ECONOMIC PROJECTION

Date : 1/20/2014

Lior: 1004504

11:29:05AM

Project Name : BOPCO, L.P.

As Of Date : 03/01/2011

Lease Name : 1004504/PLU ROSS RANCH 20 FEDERAL/

Partner : All cases

Discount Rate (%) : 5.00

Reserv Cat : Proved Producing

Case Type : LEASE CASE

Field : UNDES BONE SPRING

Archive Set : 1-1-2014

1004504/PLU ROSS RANCH 20 FEDERAL/0

Operator : BOPCO

Cum Oil (Mbbbl) : 0.00

Reservoir : BONE SPRING

Cum Gas (MMcf) : 0.00

Co., State : EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded Sales

Year	Gross Wet Production		Gross Dry Gas & NGL				
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2011	21.252	166.449	94.377	531.105	16.470	73.142	411.607
2012	15.971	324.267	183.859	1,034.671	12.378	142.491	801.870
2013	5.089	120.057	68.072	383.078	3.944	52.756	296.885

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	42.312	610.773	346.308	1,948.854	32.792	268.389	1,510.362
Ult.	42.312	610.773					

Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2011	86.79	3.45	0.73	1,429.46	252.34	298.83	1,980.63
2012	92.01	2.68	0.73	1,138.90	381.86	582.16	2,102.92
2013	92.49	3.43	0.73	364.78	181.18	215.54	761.50

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	89.45	3.04	0.73	2,933.14	815.39	1,096.52	4,845.05

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2011	19.35	1.37	7,151.95	19.39	-5,211.43	-5,211.43	-5,275.83	-5,275.83
2012	176.90	12.31	0.00	632.05	1,281.66	-3,929.76	1,205.63	-4,070.20
2013	64.44	4.45	0.00	548.30	144.31	-3,785.46	129.39	-3,940.80

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	260.68	18.13	7,151.95	1,199.74	-3,785.46	-3,785.46	-3,940.80	-3,940.80

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.77500000		
Initial Rate :	68,646.00 Mcf/month	Disc. Initial Invest. (m\$) :	7,151.948	5.00% :	-3,940.80
Abandonment :	13,668.00 Mcf/month	Internal ROR (%) :	>1000.0	9.00% :	-4,058.93
Initial Decline :	99.70 % year b = 1.300	ROIvestment (disc/undisc) :	0.45 / 0.47	10.00% :	-4,087.65
Beg Ratio :	0.08 bbl/Mcf	Years to Payout :	0.00	12.00% :	-4,144.14
End Ratio :	0.03 bbl/Mcf	Abandonment Date :	11/30/2013	15.00% :	-4,226.56
Forecast Start :	12/01/2011			20.00% :	-4,358.02
		Initial	1st Rev.	30.00% :	-4,600.51
		Working Interest :	0.00000000	40.00% :	-4,818.49
		Revenue Interest :	0.00000000	50.00% :	-5,014.85
		Rev. Date :		60.00% :	-5,192.11



1-1-2014 Oil(ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 ReIn: 69,831 bbl
 EUR: 69,831 bbl
 11/18/2011 - 07/02/2061
 Qi: 8,810 / Qact: 3,775
 Qf: 8
 D: 99.999 / Dmin: 5.000
 B: 1.00000

1-1-2014 GOR(Formula)

$$\frac{(\text{Gas}) \times 1000}{(\text{Oil})}$$

 Cum: N/A
 Rem: N/A
 EUR: N/A
 05/01/2011 - 07/02/2061
 Qi: 0 / Qact: 120
 Qf: 36,572

1-1-2014 Gas(ARPs)
 Segment: 1 of 1
 Cum: 0 Mcf
 Rem: 1,474,976 Mcf
 EUR: 1,474,976 Mcf
 12/20/2011 - 07/02/2061
 Qi: 68,479 / Qact: 68,646
 Qf: 304
 D: 99.700 / Dmin: 5.000
 B: 1.30000

1-1-2014 Water(ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 Rem: 408,557 bbl
 EUR: 408,557 bbl
 09/12/2011 - 07/02/2061
 Qi: 34,567 / Qact: 35,465
 Qf: 75
 D: 99.996 / Dmin: 5.000
 B: 1.20000

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU Ross Ranch 20 _____ FORMATION _____ LOWER AVALON _____
 LOCATION _____ B _____ P _____ UNIT, _____ 330 _____ FEET FROM _____ SOUTH _____ LINE & _____ 330 _____ FEET FROM _____ EAST _____ LINE
 SECTION _____ 16 _____ TOWNSHIP _____ 25S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____, NEW MEXICO
 SPUD DATE _____ 2/22/2011 _____ COMPLETION DATE _____ 5/13/2011 _____ INITIAL PRODUCTION _____ 5/13/2011 _____
 PERFORATIONS _____ 8300-12725 _____

BHL: 363' FSL & 406' FWL SEC 20 T25S R30E

STIMULATION:

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (40676): 114 BOPD, 0 MCFPD, 1098 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED		SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE	
Area (A) proration unit size, acres	160	_____	_____	_____
Porosity (Φ), %	20%	_____	_____	_____
Water saturation (S_w), %	10%	_____	_____	_____
Net Thickness (H), ft.	97	_____	_____	_____
Temperature (T), Fahrenheit	133.6	_____	_____	_____
Bottom Hole pressure (P), psia	3,552	_____	_____	_____
Recovery factor (RF), %	60%	_____	_____	_____
Recoverable gas, BCF *(See eq. below)	21.3	_____	_____	_____

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $(7758) (A) (h) (por) (1-S_w)(RF)/B_{gi}$

B_{gi} = 0.61 RB/MSCF

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 3/31/2013 39,258 BBL Oil 529,676 MCF GasINITIAL RATE (qi) 2251 MCFDECONOMIC LIMIT (qi) 10 MCFDHYPERBOLIC DECLINE RATE, dy n = .75, d = 96.11%/yrREMAINING MCF (Q) = 0ULTIMATE RECOVERABLE MCF 610,773

(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,717,741 (to the depth of formation completed)COMPLETION COST \$4,434,209GROSS TOTAL COST \$7,151,950

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	166.449	1980.6	40.1	-5275.8
2	324.267	2102.9	821.1	1205.6
3	120.057	761.5	617.2	129.4
4				
5				
6				
7				
8				
9				
10			0.0	
REMAINDER				
TOTAL	610.773	4845.1	1478.4	-3940.8

WELL IS NOT COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

2. Name of Operator CHESAPEAKE OPERATING INC Contact: LYNDEE SONGER
E-Mail: lyndee.songer@chk.com

3. Address OKLAHOMA CITY, OK 73154-0496 3a. Phone No. (include area code)
Ph: 405-935-2411

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface NWNW 100FNL 400FWL
At top prod interval reported below Sec 20 T25S R30E Mer NMP
At total depth SWSW 364FSL 406FWL

5. Lease Serial No. NMLC064894

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. NMNM71016X

8. Lease Name and Well No. PLU ROSS RANCH 20 FEDERAL 1H

9. API Well No. 30-015-38357-00-S1

10. Field and Pool, or Exploratory CORRAL CANYON ; BS, SOUTH

11. Sec., T, R, M., or Block and Survey or Area Sec 20 T25S R30E Mer NMP

12. County or Parish EDDY 13. State NM

14. Date Spudded 02/22/2011 15. Date T.D. Reached 03/16/2011 16. Date Completed
☐ D & A ☒ Ready to Prod. 05/13/2011

17. Elevations (DF, KB, RT, GL)* 3199 GL

18. Total Depth: MD 12740 TVD 8127 19. Plug Back T.D. MD 12402 TVD 7789 20. Depth Bridge Plug Set. MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CBL;HDL GR ZDL CN SL GR

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	800		750		0	
11.000	8.625 J-55	32.0	0	3625		2105			
7.875	5.500 L-80	20.0	0	12740	4876	1853		2080	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875		7546						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf Status
A) BONE SPRING			8300 TO 12725		480	OPEN, Bone Spring
B) AVALON SAND	8300	12725				
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc

Depth Interval	Amount and Type of Material
8300 TO 12725	FRAC W/ 60,000 GAL 15% HCL, 100,082 BBL, 4,800,000# SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity
05/13/2011	05/13/2011	24	→	114.0	0.0	1098.0		

Choke Size Tbg Press Flwg SI Csg Press 24 Hr Rate Oil BBL Gas MCF Water BBL Gas Oil Ratio Well Status

SI 313.0 → 114 0 1098 POW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
05/13/2011	05/13/2011	24	→	114.0	0.0	1098.0			Flows From Well

Choke Size Tbg Press Flwg SI Csg Press 24 Hr Rate Oil BBL Gas MCF Water BBL Gas Oil Ratio Well Status

SI 313.0 → 114 0 1098 POW

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #110709 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tog Press Flwg SI	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth

3791-4420 Mostly Sand with minor Shale & Limestone
4420-4810 Mostly Limestone with Shale & Sandstone
5061-6250 Mostly Sand and Shale with minor Limestone
6250-6540 Mostly Limestone with Shale & Sandstone
6540-7431 Mostly Sand and Shale with minor Limestone

1. Electrical/Mechanical Logs (1 full set req'd.)	2. Geologic Report	3. DST Report	4. Directional Survey
5. Sundry Notice for plugging and cement verification	6. Core Analysis	7. Other	

Date 06/16/2011

**** DELETED ** DELETED ** DELETED ** DELETED ** DELETED ** DELETED ** DELETED ** DELETED ****

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-38357	Pool Code 13354	Pool Name Corral Canyon S (Bone Spring)
Property Code 309430	Property Name PLU ROSS RANCH "20" FEDERAL	Well Number 1H
OGRID No. 260737	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3199'

Surface Location

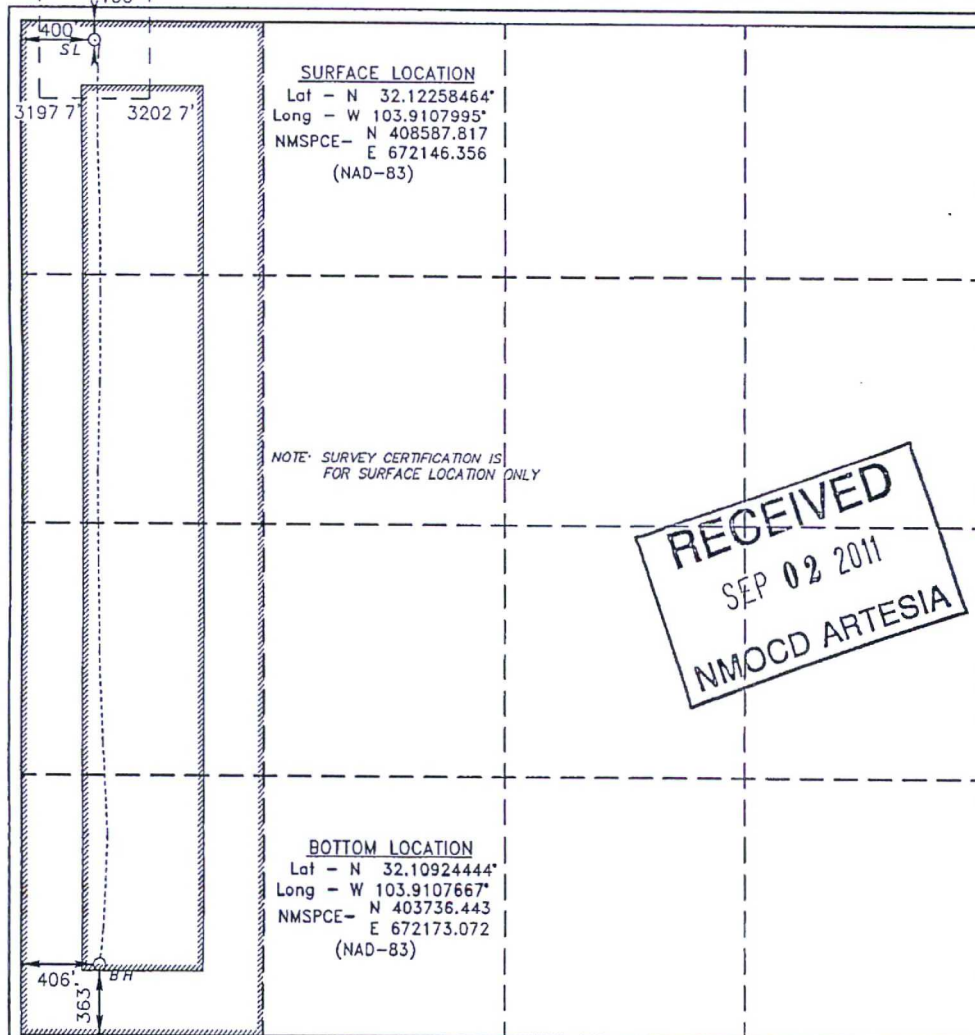
UL or lot No. D	Section 20	Township 25 S	Range 30 E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 400	East/West line WEST	County EDDY
---------------------------	----------------------	-------------------------	----------------------	---------	-----------------------------	----------------------------------	-----------------------------	-------------------------------	-----------------------

Bottom Hole Location If Different From Surface

UL or lot No. M	Section 20	Township 25 S	Range 30 E	Lot Idn	Feet from the 363	North/South line SOUTH	Feet from the 406	East/West line WEST	County EDDY
---------------------------	----------------------	-------------------------	----------------------	---------	-----------------------------	----------------------------------	-----------------------------	-------------------------------	-----------------------

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
-----------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



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.

Sandra J. Belt 8-31-11
Signature Date

Sandra J. Belt
Printed Name

SURVEYOR CERTIFICATION

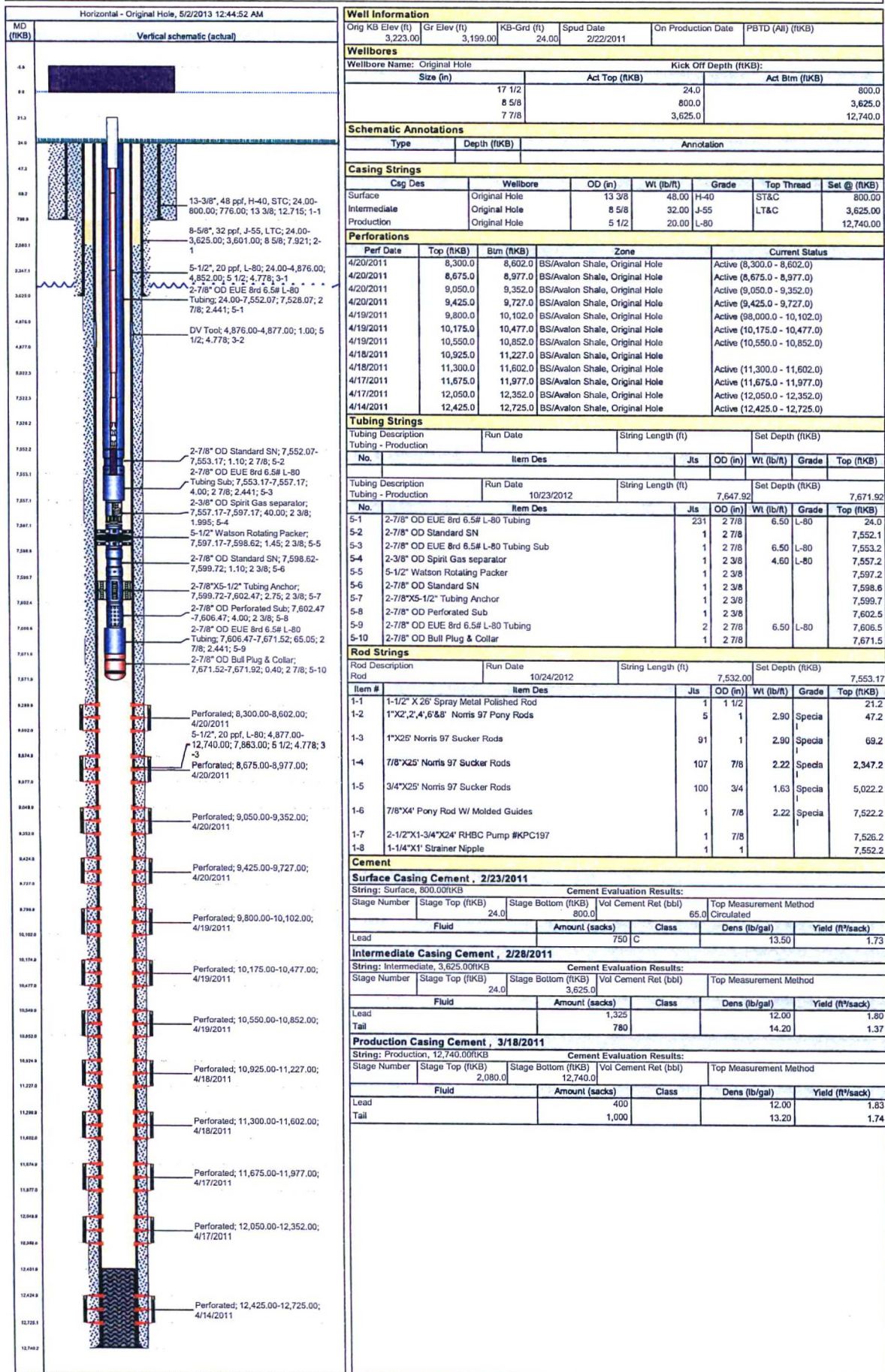
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief

Date Surveyed
Signature & Seal of
Professional Surveyor
7977



Certificate No. Gary L. Jones 7977

Basin Surveys

**010.Downhole Profile - Vertical Wells****BOPCO, L.P. - West Texas****Well Name: PLU ROSS RANCH 20 FEDERAL #1H****Well ID: 30-015-38357****Field: Corral Canyon****Sect: 20 Town: 25S Rng: 30E County: Eddy State: New Mexico****Surface Location: 100' FNL & 400' FWL**



035.Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: PLU ROSS RANCH 20 FEDERAL #1H

Well ID: 30-015-38357

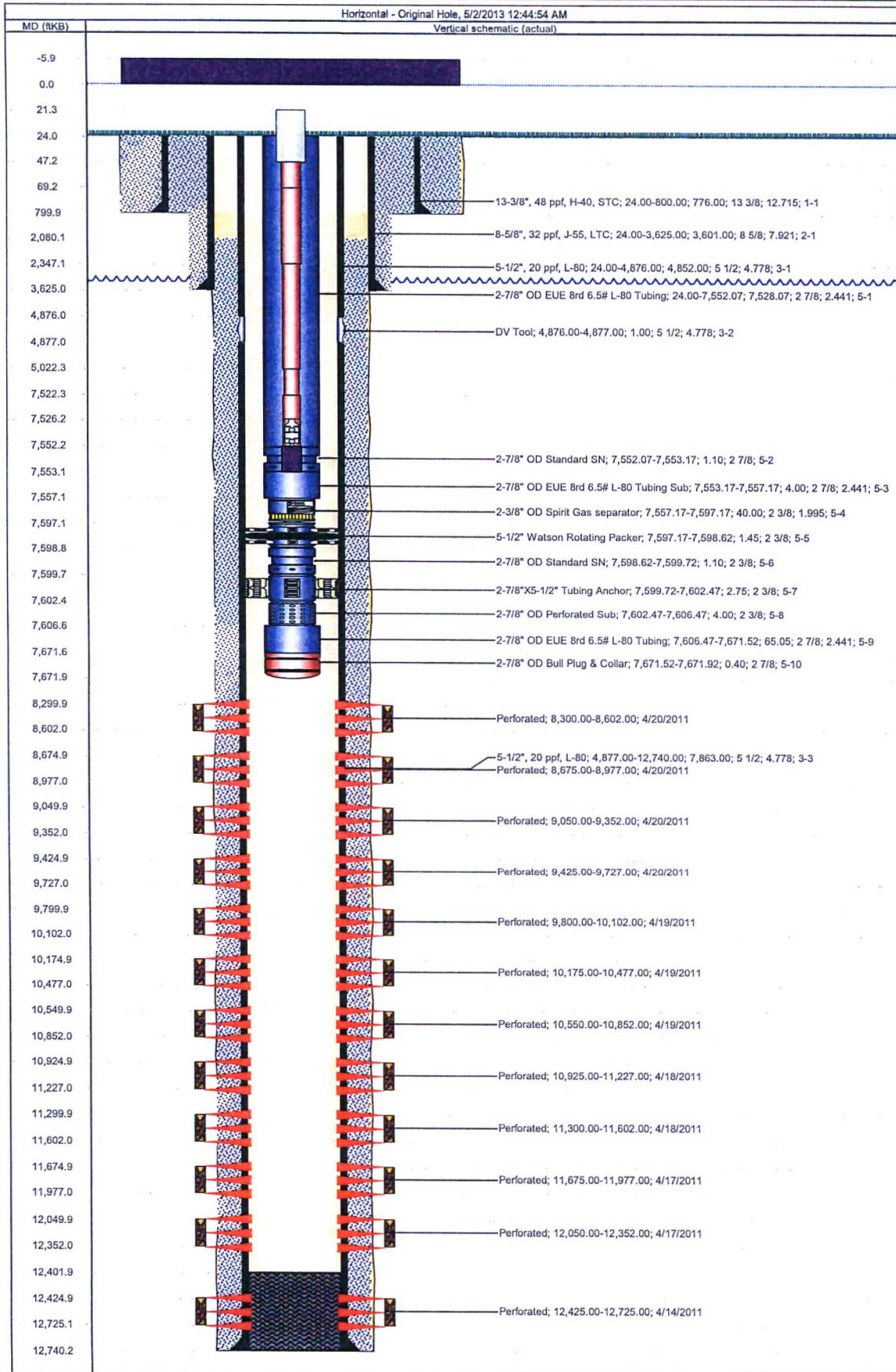
Field: Corral Canyon

Sect: 20 Town: 25S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Completion/Workover	Lift Change	Install Rod & Beam Lift	10/22/2012	10/27/2010



BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 17, 2015

RECEIVED OOD
2015 JUL 20 P 1:55

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV BS #011H (PLU Big Sinks 15-25-30 ST #1H)
Bone Spring
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the Bone Spring reservoir. Should you be in agreement that the Bone Spring is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Frank McCreight
FROM: Bryce Bezant
DATE: 1/20/2014
RE: Commercial Determination
PLU Big Sinks 15-25-30 ST #1H
Poker Lake Unit (Bone Spring) Field
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 15-25-30 ST #1H was drilled in 2012 to a total depth of 13,575' laterally completed in the Bone Spring reservoir. The well is producing from perforations 8,363'-13,534'. On test 5/23/2012 the well flowed at the rate of 442 BOPD, 1602 MCFD, and 1094 BWPD. This well has an expected recovery of approximately 41 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs inclusive of water expense were used through December, 2013. Starting January, 2014 operating costs of \$30,000/month plus \$1.25/bbl water expense were used until the economic limit was reached. The Big Sinks 15-25-30 ST #1H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant

RBB/tah

Cc: Ross Sutton
Andy Morrison
Steve Johnson

ECONOMIC PROJECTION

Date : 1/21/2014

Lior: 1004610

3:39:56PM

Project Name : BOPCO, L.P.
 Partner : All cases
 Lease Type : LEASE CASE
 Archive Set : 1-1-2014

As Of Date : 01/01/2012
 Discount Rate (%) : 5.00

1004610/PLU BIG SINKS 15-25-30 USA/

Lease Name : 1004610/PLU BIG SINKS 15-25-30 USA/
 Reserv Cat. : Proved Producing
 Field : WILDCAT BIG SINKS; B.S. 96654
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2012	13.733	128.577	55.674	336.143	10.643	43.147	260.511
2013	7.903	96.224	41.665	259.804	6.125	32.290	201.348
2014	0.977	13.473	5.834	36.378	0.757	4.521	28.193

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	22.613	238.274	103.173	632.324	17.525	79.959	490.051
Ult.	22.613	238.274					

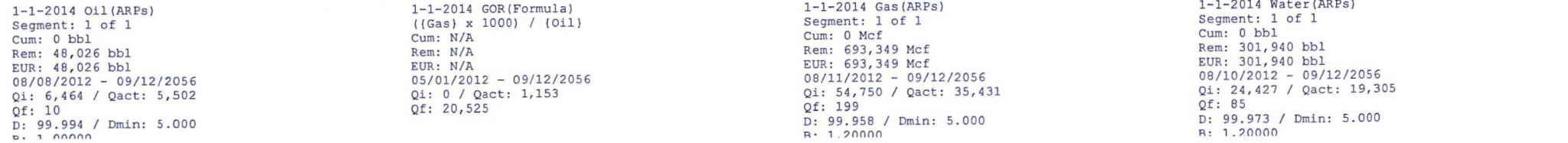
Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	88.28	2.89	0.73	939.61	124.63	190.17	1,254.42
2013	93.25	3.43	0.73	571.14	110.86	146.98	828.99
2014	90.36	3.65	0.73	68.42	16.49	20.58	105.49

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	90.11	3.15	0.73	1,579.18	251.98	357.74	2,188.90

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	103.44	7.43	5,585.35	669.24	-5,111.04	-5,111.04	-5,082.25	-5,082.25
2013	68.76	4.90	417.00	471.53	-133.19	-5,244.23	-130.27	-5,212.52
2014	8.78	0.62	250.00	89.98	-243.89	-5,488.12	-219.74	-5,432.25

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	180.98	12.94	6,252.35	1,230.75	-5,488.12	-5,488.12	-5,432.25	-5,432.25

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)				
Perfs :	0	Revenue Int :	0.77500000					
Initial Rate :	35,431.00 Mcf/month	Disc. Initial Invest. (m\$) :	6,159.842	5.00% :	-5,432.25			
Abandonment :	5,492.94 Mcf/month	Internal ROR (%) :	>1000.0	9.00% :	-5,388.98			
Initial Decline :	99.96 % year b = 1.200	ROI Investment (disc/undisc) :	0.12 / 0.12	10.00% :	-5,378.35			
Seg Ratio :	0.16 bbl/Mcf	Years to Payout :	0.00	12.00% :	-5,357.30			
End Ratio :	0.07 bbl/Mcf	Abandonment Date :	03/12/2014	15.00% :	-5,326.24			
Forecast Start :	08/01/2012			20.00% :	-5,275.75			
		Initial	1st Rev.	2nd Rev.	30.00% :	-5,179.10		
		Working Interest :	1.00000000	0.00000000	40.00% :	-5,087.39		
		Revenue Interest :	0.77500000	0.00000000	50.00% :	-4,999.82		
		Rev. Date :			60.00% :	-4,915.77		



WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU Big Sinks 15-25-30 ST _____ FORMATION _____ BONE SPRING _____
 LOCATION _____ B _____ P _____ UNIT, _____ 350 _____ FEET FROM SOUTH LINE & _____ 1980 _____ FEET FROM EAST LINE _____
 SECTION _____ 15 _____ TOWNSHIP _____ 25S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____, NEW MEXICO _____
 SPUD DATE _____ 2/29/2012 _____ COMPLETION DATE _____ 5/9/2012 _____ INITIAL PRODUCTION _____ 5/23/2012 _____
 PERFORATIONS _____ 8363-13534 _____
 BHL: 226' FNL & 1936' FWL SEC 15 T25S R30E _____

STIMULATION:

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (5/24/2012): 442 BOPD, 1602 MCFPD, 1094 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	160.5	
Porosity (Φ), %	7%	
Water saturation (S_w), %	22%	
Net Thickness (H), ft.	112	
Temperature (T), Fahrenheit	136	
Bottom Hole pressure (P), psia	4,313	
Recovery factor (RF), %	39%	
Recoverable gas, BCF *(See eq. below)	4.8	

*Sometimes unable to match performance due to volumetric uncertainty and limited drainage in unconventional reservoirs.

Formula = $(7758) (A) (h) (por) (1-S_w)(RF)/B_{gi}$

$B_{gi} = 0.62$

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 11/30/2013 21,169 BBL Oil 218,456 MCF GasINITIAL RATE (qi) 1,505ECONOMIC LIMIT (qi) 131HYPERBOLIC DECLINE RATE, dy n = 0, d = 100.2%/yrREMAINING MCF (Q) = 0ULTIMATE RECOVERABLE MCF 238,274

(Attach plot showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,234,140 (to the depth of formation completed)COMPLETION COST \$3,351,210GROSS TOTAL COST \$5,585,350

YEAR	GROSS MCF MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	128.577	1254.4	780.1	-5082.3
2	96.224	829.0	545.2	-130.3
3	13.473	105.5	99.4	-219.7
4			0.0	
5			0.0	
6			0.0	
7			0.0	
8			0.0	
9			0.0	
10			0.0	
REMAINDER				
TOTAL	238.274	2188.9	1424.7	-5432.3

WELL IS NOT COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Serial No. NMLC063873A	
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr Other _____		6. If Indian, Allottee or Tribe Name	
2. Name of Operator CHESAPEAKE OPERATING INC		7. Unit or CA Agreement Name and No 89100Q303X	
Contact: ERIN CARSON E-Mail: erin.carson@chk.com		8. Lease Name and Well No. PLU BIG SINKS 15 25 30 USA 1H	
3. Address OKLAHOMA CITY, OK 73154-0496		9. API Well No. 30-015-39693-00-S1	
3a. Phone No. (include area code) Ph 405-935-2896		10. Field and Pool, or Exploratory WILDCAT <i>Page Sink; P.S. 96654</i>	
4. Location of Well (Report location clearly and in accordance with Federal requirements) At surface Sec 22 T25S R30E Mer NMP NENW 10FNL 1980FWL At top prod interval reported below Sec 15 T25S R30E Mer NMP NENW 62FSL 1947FWL At total depth Sec 15 T25S R30E Mer NMP NENW 226FNL 1936FWL		11. Sec., T., R., M., or Block and Survey or Area Sec 22 T25S R30E Mer NMP	
14. Date Spudded 02/29/2012		15. Date T.D. Reached 03/17/2012	
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod 05/09/2012		17. Elevations (DF, KB, RT, GL)* 3339 GL	
18. Total Depth: MD 13575 TVD 8449		19. Plug Back T.D.: MD TVD	
20. Depth Bridge Plug Set. MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) 3339 GL	
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)			

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J-55	48.0	0	1163		1500		30	
11.000	8.625 J-55	32.0	0	3881		1999		29	
7.875	5.500 L-80	20.0	3881	13575		2050		3381	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING			8363 TO 13534			OPEN
B) AVALON SAND	8363	13534				
C)						
D)						

26. Perforation Record

Depth Interval	Amount and Type of Material
8363 TO 13534	PROPPANT- 2,409,893 LBS, ACID- 23,600 GAL; CLEAN FLUID- 50,141 BBL

RECLAMATION
DUE 11-9-12

27. Acid, Fracture, Treatment, Cement Squeeze, Etc

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity
05/23/2012	05/24/2012	24	→	442.0	1602.0	1094.0		
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status
40/64	SI	640	→	442	1602	1094	3624	POW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity
05/23/2012	05/24/2012	24	→	442.0	1602.0	1094.0		
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status
40	SI	640	→	442	1602	1094		POW

ACCEPTED FOR RECORD

PRODUCTION METHOD

FLOW FROM WELL

JUN 17 2012

BUREAU OF LAND MANAGEMENT

CARLSBAD FIELD OFFICE

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #139812 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

28c Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
			→						

29 Disposition of Gas(Sold, used for fuel, vented, etc.)
CAPTURED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31 Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas Depth
RUSTLER	1079				
TOP SALT	1417				
BASE OF SALT	3753				
BELL CANYON	3985				
CHERRY CANYON	4893				
BRUSHY CANYON	6107				
BONE SPRING	7762				

32 Additional remarks (include plugging procedure):

CONFIDENTIAL

LOGS SENT VIA UPS OVERNIGHT

CHK PN 640122

33 Circle enclosed attachments:

- | | | | |
|---|-------------------|--------------|-----------------------|
| 1 Electrical/Mechanical Logs (1 full set req'd.) | 2 Geologic Report | 3 DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7 Other | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)

Electronic Submission #139812 Verified by the BLM Well Information System.
For CHESAPEAKE OPERATING INC, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 06/14/2012 (12KMS2322SE)

Name (please print) ERIN CARSON

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 06/06/2012

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.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 593-6161 Fax: (505) 503-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 746-1283 Fax: (505) 746-5725

DISTRICT III
300 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 354-6170 Fax: (505) 354-9179

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3150 Fax: (505) 476-2162

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-39693	Pool Code 96403	Pool Name WILDCAT; BONE SPRING
Property Code 38939	Property Name PLU BIG SINKS 15 25 30 USA	Well Number 1H
GRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3339'

Surface Location

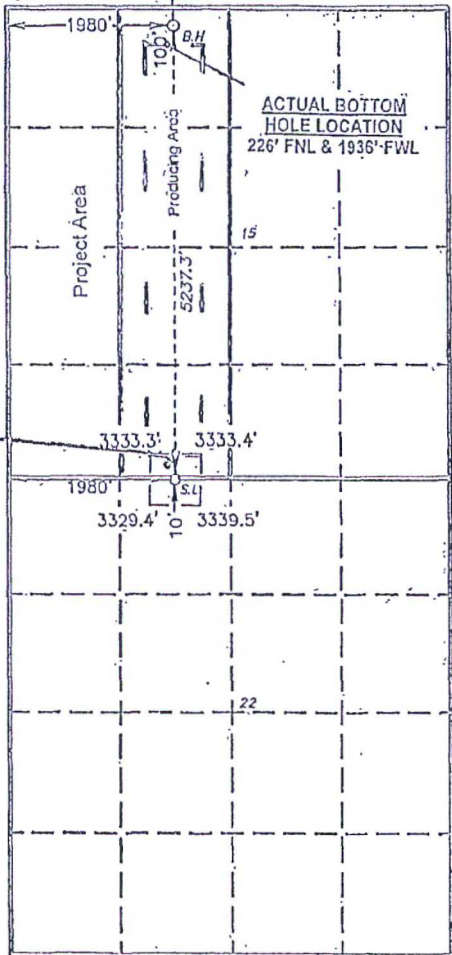
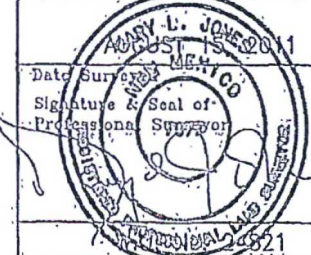
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	25 S	30 E		10	NORTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

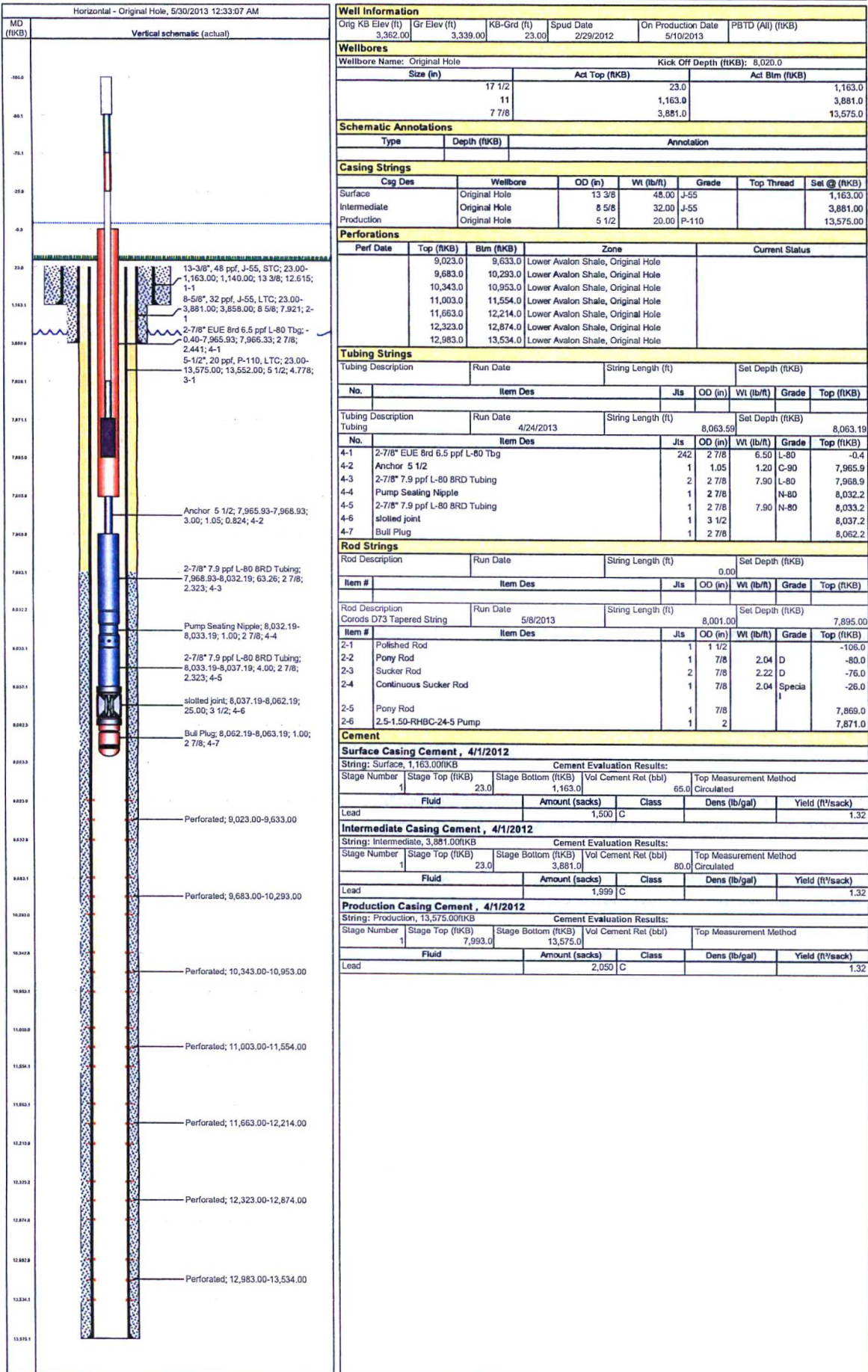
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	15	25 S	30 E		226	NORTH	1936	WEST	EDDY

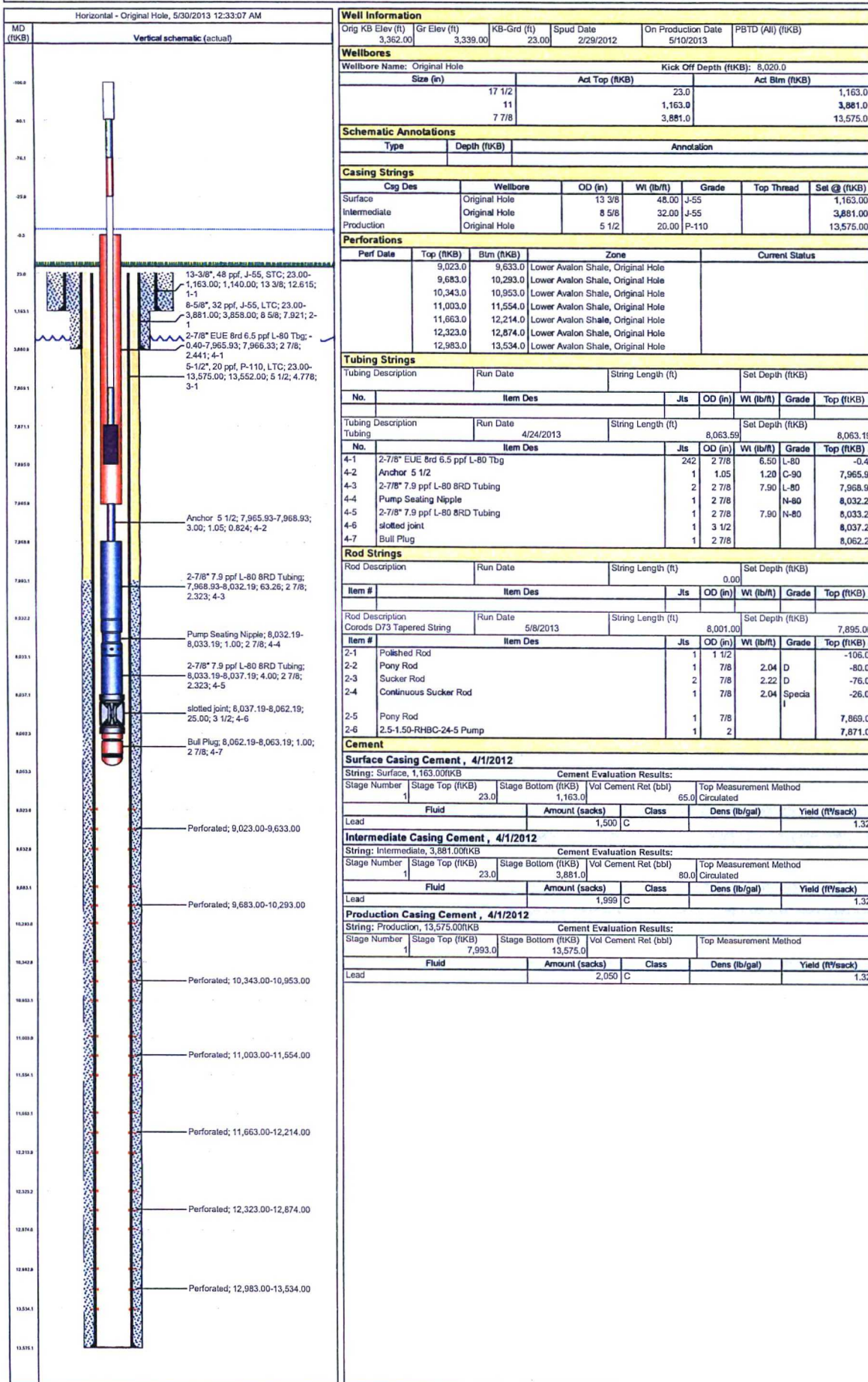
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
163.02			

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

<p>PROPOSED BOTTOM HOLE LOCATION Lat - N 32.13746604' Long - W 103.87119257' NMSPC - E 684362.151 (NAD-83) Lat - N 32.13734203' Long - W 103.87071040' NMSPC - E 643994.474 (NAD-27)</p> <p>FIRST PERFORATION 62' FSL & 1947' FWL</p> <p>SURFACE LOCATION Lat - N 32.12306940' Long - W 103.8711942' NMSPC - E 684404.128 (NAD-83) Lat - N 32.12294525' Long - W 103.87071260' NMSPC - E 643218.961 (NAD-27)</p>		<p>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.</p> <p><i>Bryan Arrant</i> 6/1/2012 Signature Date Bryan Arrant</p> <p>Printed Name bryan.arrant@clik.com Email Address</p> <p>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.</p> <p> Date Surveyed Signature & Seal of Professional Surveyor</p> <p>Certificate No. Gary L. Jones 7977 BASIN SURVEYS 24821</p>
---	---	--

AS DRILLED LAND PLAT

**010.Downhole Profile - Vertical Wells****BOPCO, L.P. - West Texas****Well Name: PLU BIG SINKS 15-25-30 USA #1H****Well ID: 30-015-39693****Field: Wildcat - Bone Spring****Sect: 15 Town: 25S Rng: 30E County: Eddy State: New Mexico****Surface Location: 10' FNL & 1980' FWL**

**010.Downhole Profile - Vertical Wells****Well Name: PLU BIG SINKS 15-25-30 USA #1H****Field: Wildcat - Bone Spring****BOPCO, L.P. - West Texas****Well ID: 30-015-39693****Sect: 15 Town: 25S Rng: 30E County: Eddy State: New Mexico****Surface Location: 10' FNL & 1980' FWL**



3do

Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

August 20, 2015

BOPCO, L.P.
201 Main Street, Suite 2900
Fort Worth, Texas 76102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV BS Well No. 010H (30-015-39846)
Commercial Well Determinations
Bone Spring Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the commercial determination data for the PLU CVX JV BS Well No. 010H located in Section 24-24S-30E..

The Bureau of Land Management's letter of July 21, 2015 concurred with your determination that the above mentioned well is capable of producing unitized substances in paying quantities from the Bone Spring formation.

Please be advised that the Commissioner of Public Lands concurs with BOPCO's determination that the PLU CVXJV BS Well No. 010H (30-015-39846-00-S1) is a commercial well in the Bone Spring formation and is entitled to participate in the Bone Spring Participating Area. This concurrence is subject to like approval by the Bureau of Land Management.

Please submit an application for the appropriate expansion of the Bone Spring Participating Area to this office and the BLM for approval.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/pm

cc: Reader File,
NMOCD Attention: Mr. Daniel Sanchez
TRD-Attention: Ms. Billie Luther
RMD-Attn: Mr. Danny Martinez
BLM Carlsbad - Attn: Mr. Ed Fernandez



366

Aubrey Dunn
COMMISSIONER

State of New Mexico
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www.nmstatelands.org

August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Big Sinks #015H (14-24-30)
Commercial Well Determinations
Poker Lake Unit 1st Bone Spring Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #015H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #015H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

A handwritten signature in black ink, appearing to read "Aubrey Dunn", is written over the typed name and title.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Big Sinks #017H (7-25-31)
Commercial Well Determinations
Poker Lake Unit 1st Bone Spring Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Big Sinks #017H is a non-commercial 1st Bone Spring Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
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State of New Mexico
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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Ross Ranch #006H (21-25-30)
Commercial Well Determinations
Poker Lake Unit Lower Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Ross Ranch #006H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Remuda Basin #002H (32-23-30)
Commercial Well Determinations
Poker Lake Unit Lower Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Remuda Basin #002H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
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TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Pierce Canyon #010H (20-24-30)
Commercial Well Determinations
Poker Lake Unit Upper Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 10, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Pierce Canyon #010H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

A handwritten signature in black ink, appearing to read "Aubrey Dunn", is written over the typed name and title.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Big Sinks #016H (3-25-30)
Commercial Well Determinations
Poker Lake 1st Bone Spring Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #016H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #016H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Big Sinks #012H (34-24-30)
Commercial Well Determinations
Poker Lake Unit 1st Bone Spring Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #012H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #016H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Pierce Canyon 011H (21-24-30)
Commercial Well Determinations
Poker Lake Unit Upper Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Pierce Canyon 011H is not capable of producing unitized substances in paying quantities from the Upper Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Pierce Canyon #011H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Big Sinks #014H (19-24-31)
Commercial Well Determinations
Poker Lake Unit 1st Bone Spring Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Big Sinks #014H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Big Sinks #014H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Phantom Banks 002H (3-26-30)
Commercial Well Determinations
Poker Lake Unit Upper Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX Phantom Banks 002H is not capable of producing unitized substances in paying quantities from the Upper Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX Phantom Banks 002H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Aubrey Dunn", is written over the typed name.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Phantom Banks #003H (4-26-31)
Commercial Well Determinations
Poker Lake Unit Lower Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Phantom Banks #003H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Phantom Banks #003H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



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August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Pierce Canyon #008H (7-24-30)
Commercial Well Determinations
Poker Lake Unit Lower Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management, by their letter of July 21, 2015 advised this office that they concur with your determination that the PLU CVX JV Pierce Canyon #008H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV Pierce Canyon #008H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

A handwritten signature in black ink, appearing to read "Aubrey Dunn", is written over the typed name.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
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www.nmstatelands.org

August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Remuda Basin #001H (4-24-30)
Commercial Well Determinations
Poker Lake Unit 1st Bone Spring Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 14, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Remuda Basin #001H is a non-commercial 1st Bone Spring Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez

2015 AUG 20 PM 3:04
PLU CVX JV Remuda Basin #001H



Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

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P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

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Fax (505) 827-5766
www.nmstatelands.org

August 19, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV Pierce Canyon #012H (16-24-30)
Commercial Well Determinations
Poker Lake Unit Upper Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the non-commercial determination data for the above referenced well.

Please be advised that the Commissioner of Public Lands concurs with your determination that the PLU CVX JV Pierce Canyon #012H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,



AUBREY DUNN

COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



366

Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

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COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

August 20, 2015

BOPCO, L.P.
201 Main Street, Suite 2900
Fort Worth, Texas 76102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV BS Well No. 013H (30-015-40155)
Commercial Well Determinations
Bone Spring Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of February 20, 2015 together with the commercial determination data for the PLU CVX JV BS Well No. 013H located in Section 35-24S-30E.

The Bureau of Land Management's letter of July 21, 2015 concurred with your determination that the above mentioned well is capable of producing unitized substances in paying quantities from the Bone Spring formation.

Please be advised that the Commissioner of Public Lands concurs with BOPCO's determinations that the PLU CVX JV BS Well No. 013H (30-015-40155) is a commercial well in the Bone Spring formation and is entitled to participate in the Bone Spring Participating Area. This concurrence is subject to like approval by the Bureau of Land Management.

Please submit an application for the appropriate expansion of the Bone Spring Participating Area to this office and the BLM for approval.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/pm

cc: Reader File,
NMOCD Attention: Mr. Daniel Sanchez
TRD-Attention: Ms. Billie Luther
RMD-Attn: Mr. Danny Martinez
BLM Carlsbad - Attn: Mr. Ed Fernandez

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 24, 2015

366
RECEIVED OOD
2015 JUL 27 P 2:09

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Phantom Banks #004H (25-25-30)
1st Bone Spring Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1st Bone Spring Shale. Should you be in agreement that the 1st Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/15/2015
RE: Commercial Determination
PLU CVX JV Phantom Banks #004H (25-25-30)
Poker Lake Unit (1st Bone Spring Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Phantom Banks #004H was drilled in 2012 to a total depth of 14,160' laterally completed in the 1st Bone Spring Shale reservoir. The well is producing from perforations 9,126'-14,160'. On test 4/1/2013 the well flowed at the rate of 456 BOPD, 977 MCFD, and 2335 BWPD. This well has an expected recovery of approximately 90 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Phantom Banks #004H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 7/21/2015

Lior: 1004705

3:54:03PM

Project Name : 1-1-2015 NSAI Review For BOPCO, LP
Partner : All cases
Case Type : LEASE CASE
Archive Set : NS0115

As Of Date : 10/01/2012
Discount Rate (%) : 5.00
1004705/PLU CVX JV PB/004H/1ST

Lease Name : 1004705/PLU CVX JV PB/004H/1ST
Reserv Cat. : Proved Producing
Field : WILDCAT G-05 S2630110;BONE SPRING
Operator : BOPCO
Reservoir : BONE SPRING
Co., State : EDDY, NM

Cum Oil (mbbls) : 0.00
Cum Gas (mmcf) : 0.00

Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMCF)	Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbbl)	Gas (MMCF)	NGL (MGal)
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2013	31.614	203.819	90.088	786.741	26.477	75.449	658.896
2014	10.542	107.082	47.330	365.478	8.829	39.639	306.088
2015	6.035	24.402	10.786	94.191	5.055	9.033	78.885
2016	4.434	13.731	6.069	53.002	3.714	5.083	44.389
2017	3.531	9.565	4.228	36.920	2.957	3.541	30.920
2018	2.960	7.360	3.253	28.411	2.479	2.725	23.794
2019	2.553	5.969	2.639	23.042	2.138	2.210	19.298

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	61.669	371.929	164.392	1,387.786	51.648	137.679	1,162.270
Ult.	61.669	371.929					

Year	Average Price			Net Revenue			
	Oil \$/BBL	Gas \$/MCF	NGL \$/Gal	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	0.00	0.00	0.00	0.000	0.000	0.000	0.000
2013	86.60	3.50	0.75	2,292.876	263.840	494.172	3,050.888
2014	85.28	4.11	0.88	752.869	163.048	270.350	1,186.267
2015	50.53	2.57	0.44	255.399	23.239	34.567	313.205
2016	55.69	2.89	0.46	206.804	14.704	20.573	242.081
2017	57.03	3.06	0.46	168.646	10.843	14.331	193.819
2018	58.44	3.14	0.46	144.868	8.543	11.028	164.439
2019	59.72	3.20	0.46	127.683	7.062	8.944	143.689

Rem	0.00	0.00	0.00	0.000	0.000	0.000	0.000
Total	76.46	3.57	0.73	3,949.145	491.279	853.964	5,294.388

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	0.000	0.000	6,675.840	0.000	-6,675.840	-6,675.840	-6,675.840	-6,675.840
2013	227.379	6.021	0.000	1,780.890	1,036.598	-5,639.242	1,005.492	-5,670.348
2014	96.780	2.328	0.000	1,066.500	20.658	-5,618.584	25.879	-5,644.469
2015	25.553	0.621	250.000	628.692	-591.660	-6,210.244	-512.097	-6,156.565
2016	19.750	0.481	0.000	143.384	78.466	-6,131.778	65.501	-6,091.064
2017	15.813	0.385	0.000	136.289	41.333	-6,090.446	32.864	-6,058.200
2018	13.416	0.327	0.000	132.535	18.162	-6,072.284	13.768	-6,044.432
2019	11.723	0.286	0.000	129.843	1.837	-6,070.447	1.354	-6,043.078

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	410.412	10.449	6,925.840	4,018.133	-6,070.447	-6,070.447	-6,043.078	-6,043.078

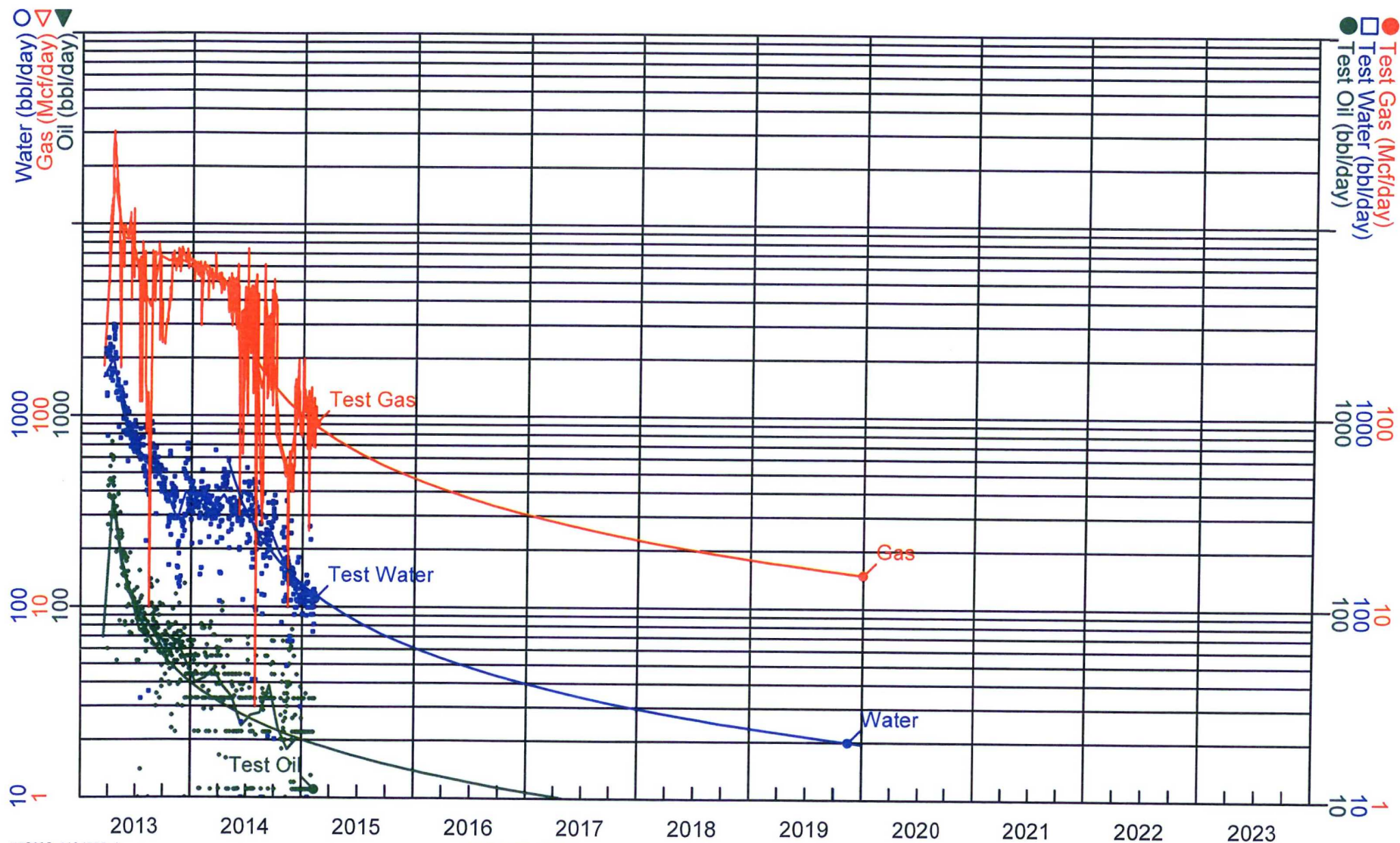
Major Phase : Gas
Perfs : 0
Initial Rate : 15.07 mmcf/month
Abandonment : 0.46 mmcf/month
Initial Decline : 99.50 % year b = 1.000
Beg Ratio : 0.08 bbl/mmcf
End Ratio : 0.44

Working Int : 1.00000000
Revenue Int : 0.83750000
Disc. Initial Invest. (m\$) : 6,889.212
Internal ROR (%) : >1000.0
ROI Investment (disc/undisc) : 0.12 / 0.12
Years to Payout : 0.00
Abandonment Date : 12/30/2019

Present Worth Profile (M\$)

5.00% : -6,043.08
9.00% : -6,026.03
10.00% : -6,022.34
12.00% : -6,015.61
15.00% : -6,006.96
20.00% : -5,995.89
30.00% : -5,983.51
40.00% : -5,980.30
50.00% : -5,983.07
60.00% : -5,989.69

	Initial	1st Rev.	2nd Rev.
Working Interest :	1.00000000	0.00000000	0.00000000
Revenue Interest :	0.83750000	0.00000000	0.00000000
Rev. Date :			



NS0115 Oil(ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 67,679 bbl
EUR: 67,679 bbl
04/15/2013 - 12/02/2022
Qi: 10,950 / Qact: 11,221
Qf: 148
D: 100.000 / Dmin: 8.000
B: 1.20000

NS0115 Gas(ARPs)
Segment: 1 of 1
Cum: 0 Mcf
Rem: 384,910 Mcf
EUR: 384,910 Mcf
04/25/2014 - 12/02/2022
Qi: 14,139 / Qact: 15,071
Qf: 304
D: 99.500 / Dmin: 8.000
B: 1.00000

NS0115 Water(Formula)
{Gas} x {WGR}
Cum: 0 bbl
Rem: 395,704 bbl
EUR: 395,704 bbl
03/01/2013 - 12/02/2022
Qi: 0 / Qact: 17,457
Qf: 395

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU CVX JV PHANTOM BANKS #004H (25-25-30) _____ FORMATION _____ BONE SPRING _____
 LOCATION _____ UNIT, _____ 150 _____ FEET FROM _____ SOUTH _____ LINE & _____ 2280 _____ FEET FROM _____ WEST _____ LINE
 SECTION _____ 25 _____ TOWNSHIP _____ 25S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____, NEW MEXICO
 SPUD DATE _____ 5/17/2012 _____ COMPLETION DATE _____ 7/24/2012 _____ INITIAL PRODUCTION _____ 5/23/2012 _____
 PERFORATIONS _____ 9126-14160 _____
 BHL: 150' FNL & 2034' FWL SEC 35 T25S R30E _____
 STIMULATION: _____

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (4/1/2013): 456 BOPD, 977 MCFPD, 2335 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED		POTENTIALLY PRODUCTIVE	
Area (A) proration unit size, acres	160	_____	_____	_____
Porosity (Φ), %	8.8%	_____	_____	_____
Water saturation (Sw), %	23%	_____	_____	_____
Net Thickness (H), ft.	65	_____	_____	_____
Temperature (T), Fahrenheit	140	_____	_____	_____
Bottom Hole pressure (P), psia	4,370	_____	_____	_____
Recovery factor (RF), %	12%	_____	_____	_____
Recoverable oil, MBO *(See eq. below)	305.1	_____	_____	_____

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((7758 \text{ rb/ac-ft}) (\text{por}) (1-S_w) / (\text{Boi rbo/stb})(RF)(A) (h)) / 1000 \text{ bo/Mbo}$ Boi = 2.15 rb/stb

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 5/31/2015 44,914 BBL Oil 322,785 MCF Gas
INITIAL RATE (qi) 360 BOPD
ECONOMIC LIMIT (qi) 4.8 BOPD
HYPERBOLIC DECLINE RATE, dy n = 1.2, d = 99%/yr
REMAINING MBO (Q) = 17
ULTIMATE RECOVERABLE MBO 62

(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,670,436 (to the depth of formation completed)

COMPLETION COST \$4,005,504

GROSS TOTAL COST \$6,675,840

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-6675.8
2	31.614	3050.9	2014.3	1005.5
3	10.542	1186.3	1165.6	25.9
4	6.035	313.2	654.9	-512.1
5	4.434	242.1	163.6	65.5
6	3.531	193.8	152.5	32.9
7	2.960	164.4	146.3	13.8
8	2.553	143.7	141.9	1.4
9			0.0	
10			0.0	
REMAINDER			0.0	
TOTAL	61.669	5294.4	4439.0	-6043.1

WELL IS NOT COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUN 18 2013

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG ARTESIA

Lease Serial No.
NMLC063079A

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____		7. Unit or CA Agreement Name and No. 891000303X	
2. Name of Operator BOPCO LP		8. Lease Name and Well No. PLU PHANTOM BANKS 25 25 30 USA 1H	
3. Address MIDLAND, TX 79702		9. API Well No. 30-015-40756-00-S1	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface SESW 150FSL 2280FWL 32.094179 N Lat, 103.835506 W Lon At top prod interval reported below SESW 446FSL 2210FWL 32.094179 N Lat, 103.835506 W Lon At total depth NENW 150FNL 2034FWL		10. Field and Pool, or Exploratory WC G-05 S26 30010	
14. Date Spudded 11/29/2012		15. Date T.D. Reached 12/21/2012	
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 03/27/2013		17. Elevations (DF, KB, RT, GL)* 3340 GL	
18. Total Depth: MD 14160 TVD 9294		19. Plug Back T.D.: MD 14140 TVD 9294	
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CBL CNL BOREHOLEPROF SGR PHOTODENS CN SGR AI GR	
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)			

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	1320		1800		0	
11.000	8.625 J-55	32.0	0	4015		2400			
7.875	5.500 P-110	17.0	0	14160		2030		4600	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8801							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) 1ST BONE SPRING	9126	14160	9853 TO 14143		216	open
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9853 TO 14143	49864 bbls fluid, 2653287# Propan, 9 stages

RECLAMATION
DUE 9-27-13

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
03/30/2013	04/01/2013	24	→	456.0	977.0	2335.0	45.0		ELECTRIC PUMP SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→	456	977	2335	2143	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #209030 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

JUN 16 2013

ACCEPTED FOR RECORD

an

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
CAPTURED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				RUSTLER	909
				BASE OF SALT	4000
				BELL CANYON	4234
				CHERRY CANYON	4960
				BRUSHY CANYON	6581
				BONE SPRING	7924

32. Additional remarks (include plugging procedure):

PLEASE HOLD COMPLETION CONFIDENTIAL

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #209030 Verified by the BLM Well Information System.

For BOPCO LP, sent to the Carlsbad

Committed to AFMSS for processing by JOHNNY DICKERSON on 05/31/2013 (13JLD0912SE)

Name (please print) TRACIE CHERRY

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 05/30/2013

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.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

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

Effective 06/01/14

¹ API Number 30-015-40756	² Pool Code 97814	³ Pool Name WC G-05 S2630010; Bone Spring
⁴ Property Code 313363	⁵ Property Name Poker Lake Unit CVX JV PB	⁶ Well Number 4H
⁷ OGRID No. 260737	⁸ Operator Name BOPCO, LP	⁹ Elevation 3340

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
N	25	25S	30E		150	South	2280	West	Eddy

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
C	35	2S	30E		150	North	2034	West	Eddy

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Tracie J Cherry</i> 06/04/14 Signature Date</p> <p>Tracie J Cherry Printed Name</p> <p>ticherry@basspet.com E-mail Address</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p>
	<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
	<p>Certificate Number</p>



Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

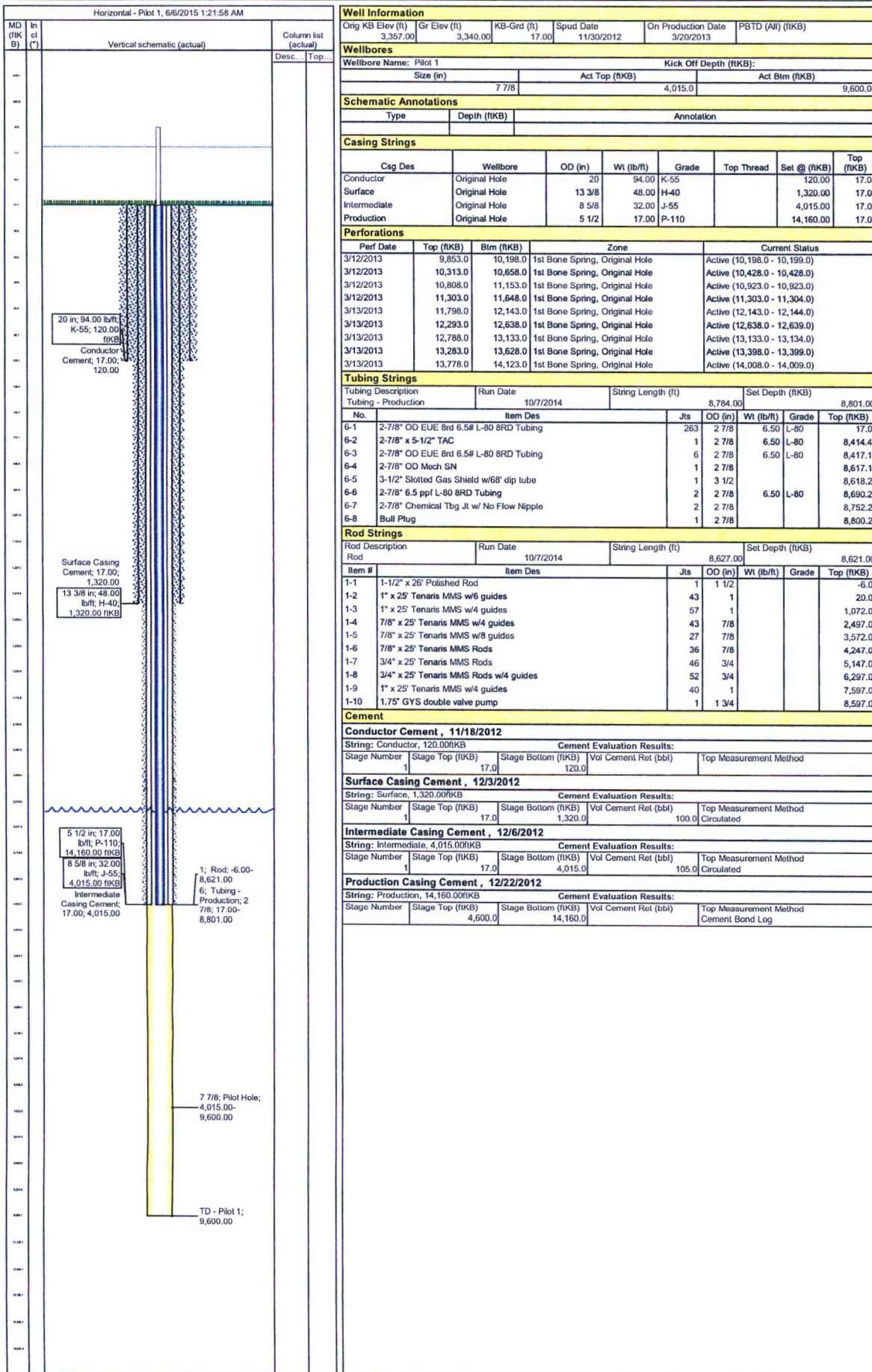
Well Name: POKER LAKE UNIT CVX JV PB #004H (25-25-30)

Well ID: 30-015-40756

Field: Wildcat - Bone Spring

Sect: 25 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location: 150' FSL & 2280' FWL, Sec 25, T25S-R30E





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV PB #004H (25-25-30)

Well ID: 30-015-40756

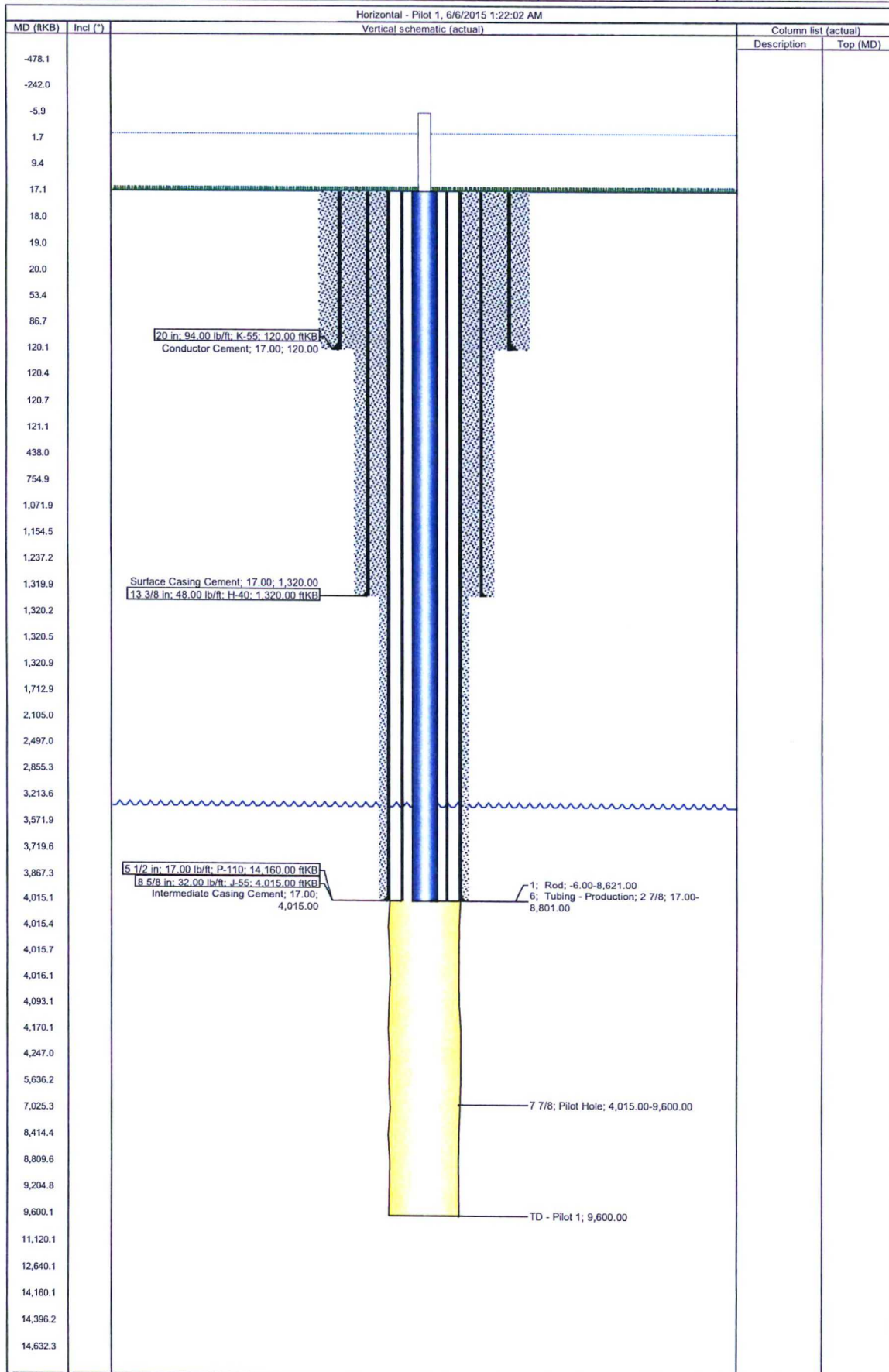
Field: Wildcat - Bone Spring

Sect: 25 Town: 25S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Completion/Workover	Lift Change	Other Stimulation	10/7/2014	10/17/2014



366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 24, 2015

RECEIVED OGD

2015 JUL 27 P 2:09

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Ross Ranch #007H (33-25-30)
1st Bone Spring Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1st Bone Spring Shale. Should you be in agreement that the 1st Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

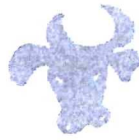
Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/16/2015
RE: Commercial Determination
PLU CVX JV Ross Ranch #007H (33-25-30)
Poker Lake Unit (1st Bone Spring Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Ross Ranch Banks #007H was drilled in 2013 to a total depth of 13,448' laterally completed in the 1st Bone Spring Shale reservoir. The well is producing from perforations 8,451'-13,448'. On test 4/20/2013 the well flowed at the rate of 456 BOPD, 3603 MCFD, and 2858 BWPD. This well has an expected recovery of approximately 116 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Ross Ranch #007H will not be a commercial well and should not be incorporated into a participating area.


R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 7/21/2015

Lior: 1004508

8:42:19AM

Project Name : 1-1-2015 NSAI Review For BOPCO, LP
 Partner : All cases
 Case Type : LEASE CASE
 Archive Set : NS0115

As Of Date : 01/01/2013
 Discount Rate (%) : 5.00
 1004508/PLU CVX JV RR/007H/1ST

Lease Name : 1004508/PLU CVX JV RR/007H/1ST
 Reserv Cat. : Proved Producing
 Field : CORRAL CANYON; BONE SPRING
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

Cum Oil (mbbls) : 0.00
 Cum Gas (mmcf) : 0.00

Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbl)	Wet Gas (MMCF)	Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbl)	Gas (MMCF)	NGL (MGal)
2013	24.711	181.907	80.403	696.704	20.510	66.734	578.264
2014	16.379	116.339	51.422	392.045	13.594	42.680	325.397
2015	15.588	73.833	32.634	282.782	12.938	27.086	234.709
2016	8.601	33.658	14.877	128.911	7.138	12.348	106.996
2017	6.121	22.891	10.118	87.673	5.081	8.398	72.769
2018	4.825	17.667	7.809	67.665	4.005	6.481	56.162
2019	4.013	14.511	6.414	55.578	3.331	5.324	46.130

Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	80.238	460.807	203.677	1,711.359	66.597	169.052	1,420.428
Ult.	80.238	460.807					

Year	Average Price			Net Revenue			
	Oil \$/BBL	Gas \$/MCF	NGL \$/Gal	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2013	87.83	3.52	0.75	1,801.385	235.125	433.698	2,470.208
2014	80.18	3.93	0.80	1,089.974	167.800	261.118	1,518.891
2015	49.95	2.57	0.44	646.214	69.668	102.865	818.746
2016	55.67	2.89	0.46	397.396	35.719	49.590	482.704
2017	57.02	3.06	0.46	289.688	25.719	33.726	349.133
2018	58.43	3.14	0.46	234.034	20.323	26.030	280.386
2019	59.72	3.20	0.46	198.900	17.015	21.380	237.294

Rem	0.00	0.00	0.00	0.000	0.000	0.000	0.000
Total	69.94	3.38	0.65	4,657.590	571.368	928.406	6,157.364

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2013	182.058	8.009	5,799.545	1,112.958	-4,632.361	-4,632.361	-4,638.535	-4,638.535
2014	112.095	4.924	0.000	1,226.400	175.473	-4,456.888	164.175	-4,474.360
2015	59.925	2.656	250.000	687.842	-181.676	-4,638.565	-154.168	-4,628.528
2016	35.190	1.566	0.000	240.892	205.055	-4,433.509	173.411	-4,455.117
2017	25.433	1.133	0.000	226.787	95.780	-4,337.730	77.129	-4,377.988
2018	20.414	0.910	0.000	219.944	39.119	-4,298.611	30.036	-4,347.953
2019	17.269	0.770	0.000	215.810	3.445	-4,295.166	2.583	-4,345.370

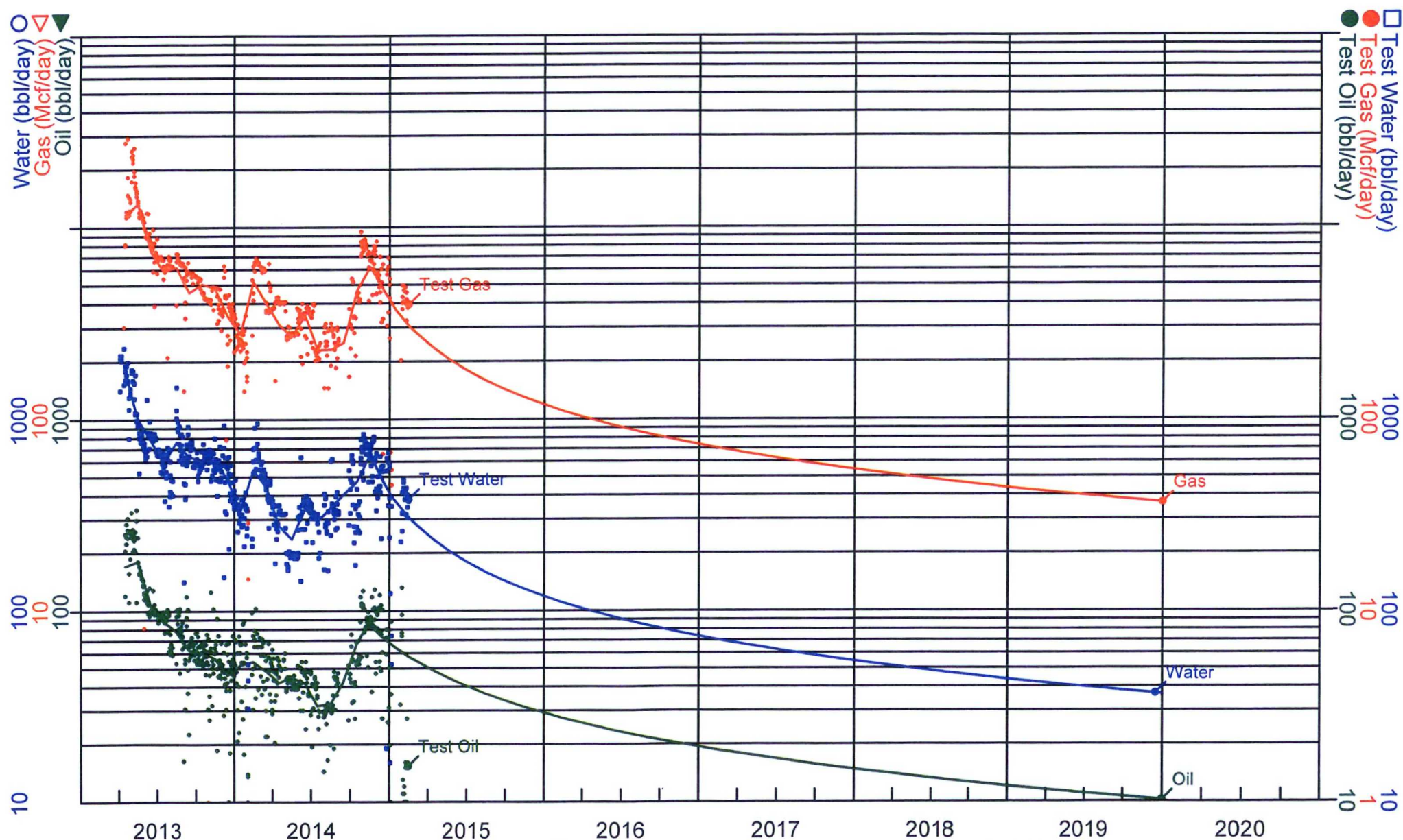
Rem	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	452.384	19.967	6,049.545	3,930.633	-4,295.166	-4,295.166	-4,345.370	-4,345.370

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0	Revenue Int :	0.83000000		
Initial Rate :	18.61	Disc. Initial Invest. (m\$) :	5.996.220	5.00% :	-4,345.37
Abandonment :	1.11	Internal ROR (%) :	>1000.0	9.00% :	-4,378.20
Initial Decline :	99.00	ROI Investment (disc/undisc) :	0.28 / 0.29	10.00% :	-4,385.57
Beg Ratio :	0.14	Years to Payout :	0.00	12.00% :	-4,399.43
End Ratio :	0.28	Abandonment Date :	12/31/2019	15.00% :	-4,418.25
				20.00% :	-4,445.16
				30.00% :	-4,486.46
				40.00% :	-4,516.26
				50.00% :	-4,538.42
				60.00% :	-4,555.31

	Initial	1st Rev.	2nd Rev.
Working Interest :	1.00000000	0.00000000	0.00000000
Revenue Interest :	0.83000000	0.00000000	0.00000000
Rev. Date :			

1004508/PLU CVX JV RR/007H/1ST
Oper: BOPCO
Major Phase: Gas

Field: CORRAL CANYON; BONE SPRING
EDDY, NM
ECL Date: 12/31/2019



NS0115 Oil (ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 107,783 bbl
EUR: 107,783 bbl
11/15/2014 - 11/16/2033
Qi: 2,562 / Qact: 2,674
Qf: 86
D: 85.000 / Dmin: 8.000
B: 1.20000

NS0115 Gas (ARPs)
Segment: 1 of 1
Cum: 0 Mcf
Rem: 558,427 Mcf
EUR: 558,427 Mcf
11/23/2014 - 11/16/2033
Qi: 18,495 / Qact: 18,610
Qf: 304
D: 99.000 / Dmin: 8.000
B: 1.20000

NS0115 Water (Formula)
(Gas) x (WGR)
Cum: 0 bbl
Rem: 593,156 bbl
EUR: 593,156 bbl
04/01/2013 - 11/16/2033
Qi: 0 / Qact: 46,346
Qf: 304

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL PLU CVX JV ROSS RANCH #007H (33-25-30) FORMATION BONE SPRING
 LOCATION UNIT, 150 FEET FROM NORTH LINE & 660 FEET FROM WEST LINE
 SECTION 33 TOWNSHIP 25S RANGE 30E COUNTY Eddy NEW MEXICO
 SPUD DATE 1/26/2013 COMPLETION DATE 4/10/2013 INITIAL PRODUCTION 4/14/2013
 PERFORATIONS 8451-13448
 BHL: 312' FSL & 647' FWL SEC.33 T25S.R30E

STIMULATION:

ACID _____

FRACTURE See Attached

POTENTIAL (4/20/2013): 456 BOPD, 3603 MCFPD, 2858 BWPD

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	<u>160</u>	<u> </u>
Porosity (Φ), %	<u>8.8%</u>	<u> </u>
Water saturation (Sw), %	<u>23%</u>	<u> </u>
Net Thickness (H), ft.	<u>65</u>	<u> </u>
Temperature (T), Fahrenheit	<u>140</u>	<u> </u>
Bottom Hole pressure (P), psia	<u>4,370</u>	<u> </u>
Recovery factor (RF), %	<u>12%</u>	<u> </u>
Recoverable oil, MBO *(See eq. below)	<u>305.1</u>	<u> </u>

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((7758 \text{ rb/ac-ft}) (\text{por}) (1-S_w)/(\text{Boi rbo/stb})(\text{RF})(A) (h))/1000 \text{ bo/Mbo}$ Boi = 2.15 rb/stb

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 4/30/2015 42,761 BBL Oil 323,488 MCF Gas
INITIAL RATE (qi) 84 BOPD
ECONOMIC LIMIT (ql) 2 BOPD
HYPERBOLIC DECLINE RATE, dy n = 1.2, d = 85%/yr
REMAINING MBO (Q) = 37
ULTIMATE RECOVERABLE MBO 80

(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,319,818 (to the depth of formation completed)

COMPLETION COST \$3,479,727

GROSS TOTAL COST \$5,799,545

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	24.711	2470.2	1303.0	-4638.5
2	16.379	1518.9	1343.4	164.2
3	15.588	818.7	750.4	-154.2
4	8.601	482.7	277.6	173.4
5	6.121	349.1	253.4	77.1
6	4.825	280.4	241.3	30.0
7	4.013	237.3	233.8	2.6
8			0.0	
9			0.0	
10			0.0	
REMAINDER			0.0	
TOTAL	80.238	6157.4	4403.0	-4345.4

WELL IS NOT COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM05039A

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____		7. Unit or CA Agreement Name and No. 891000303X	
2. Name of Operator BOPCO LP		8. Lease Name and Well No. PLU ROSS RANCH 33 25 30 USA 1H	
3. Address MIDLAND, TX 79702		9. API Well No. 30-015-40762-00-S1	
3a. Phone No. (include area code) Ph: 432-221-7379		10. Field and Pool, or Exploratory CORRAL CANYON	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface NWNW 150FNL 660FWL 32.093199 N Lat, 103.892629 W Lon At top prod interval reported below NWNW 622FNL 649FWL 32.093199 N Lat, 103.892629 W Lon At total depth SWSW 312FSL 647FWL		11. Sec., T., R., M., or Block and Survey or Area Sec 33 T25S R30E Mer NMP	
14. Date Spudded 01/26/2013		15. Date T.D. Reached 02/11/2013	
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 04/10/2013		17. Elevations (DF, KB, RT, GL)* 3197 GL	
18. Total Depth: MD 13448 TVD 8866		19. Plug Back T.D.: MD TVD	
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CALIPER	
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)			

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	1147		1125		0	
11.000	8.625 J-55	32.0	0	3695		1550		0	
7.875	5.500 HCP-110	17.0	0	13447	5022	1900		2620	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8226							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) 1ST BONE SPRING	8451	13448	9050 TO 13409		216	open
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9050 TO 13409	FRAC USING 49121 BBLS FLUID, 2454461# PROPANT

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
04/14/2013	04/20/2013	24	→	456.0	3603.0	2858.0	42.6	0.81	ELECTRIC PUMP SUBSURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL 456	Gas MCF 3603	Water BBL 2858	Gas:Oil Ratio 7901	Well Status POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #210488 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

RECEIVED
JUN 21 2013
MIDLAND, TEXASRECLAMATION
DUE 10-10-13

ACCEPTED FOR RECORD

JUN 19 2013

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

ml

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
CAPTURED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				RUSTLER	980
				BELL CANYON	3750
				CHERRY CANYON	4682
				BRUSHY CANYON	5689
				BONE SPRING	7525
				1ST BONE SPRING	8451

32. Additional remarks (include plugging procedure):
PLEASE HOLD CONFIDENTIAL

Base of 1st Bone Spring not logged.

No electric logs run. Logs from PLU Ross Rand 28 25 30 #1H were used; wells share the same pad.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #210488 Verified by the BLM Well Information System.
For BOPCO LP, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 06/18/2013 (13KMS6477SE)

Name (please print) TRACIE J CHERRY

Title REGULATORY ANALYST

Signature _____ (Electronic Submission)

Date 06/12/2013

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

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 30-015-40762	² Pool Code 13354	³ Pool Name Corral Canyon; Bone Spring, South
⁴ Property Code 313372	⁵ Property Name Poker Lake Unit CVX JV RR	⁶ Well Number 7H
⁷ OGRID No. 260737	⁸ Operator Name BOPCO, LP	⁹ Elevation 3197

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
D	33	25S	30E		150	North	660	West	Eddy

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
M	33	25S	30E		312	South	647	West	Eddy

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

				<p>¹⁷ OPERATOR CERTIFICATION</p> <p>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 released 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.</p> <p><i>Tracie J Cherry</i> <i>08/04/14</i> Signature Date</p> <p>Tracie J Cherry Printed Name</p> <p>tjcherry@basspet.com E-mail Address</p>
				<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p>
				<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
				<p>Certificate Number</p>



Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV RR #007H (33-25-30)

Well ID: 30-015-40762

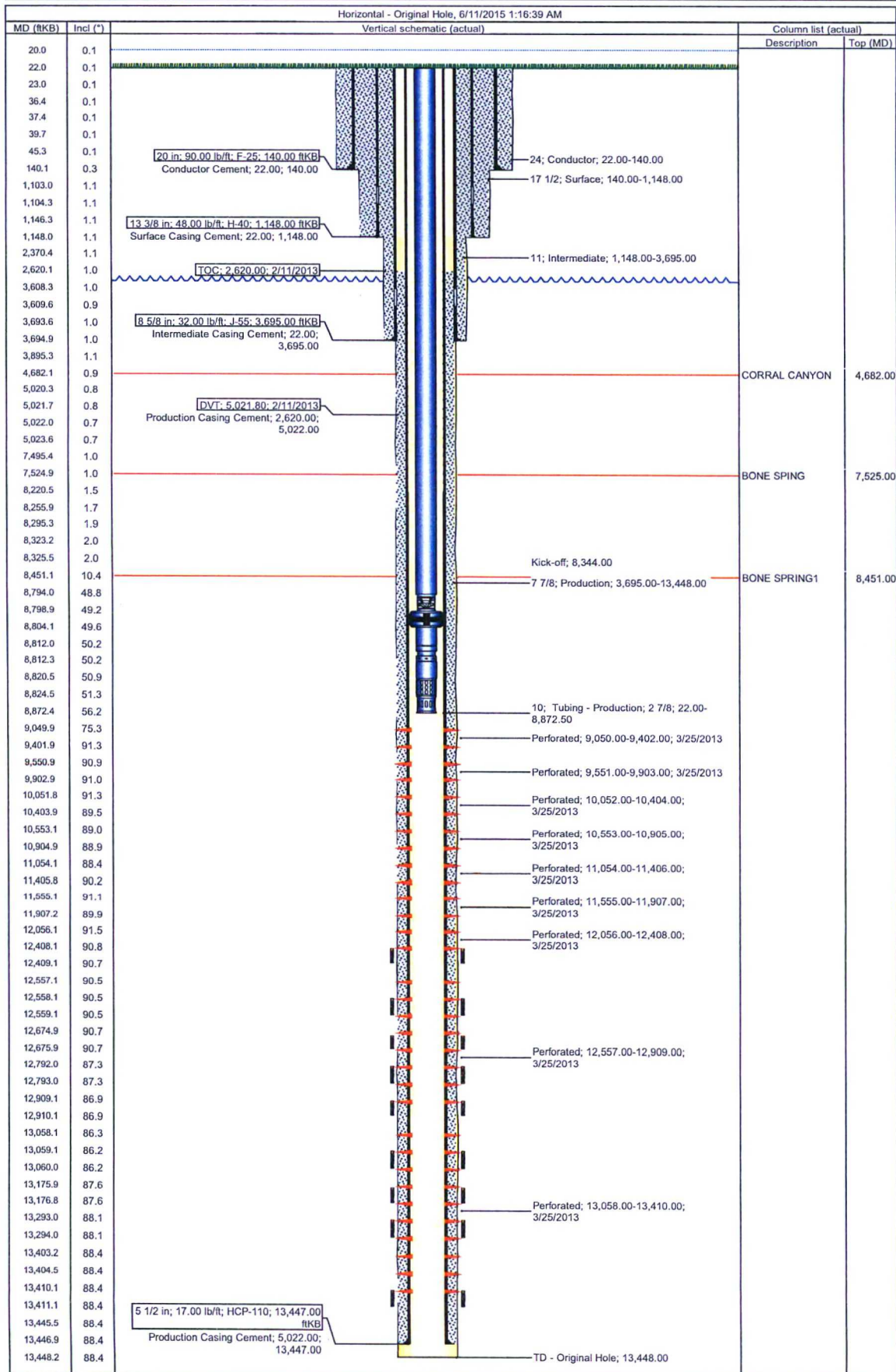
Field: Corral Canyon

Sect: 33 Town: 25S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Completion/Workover	Lift Change		5/11/2015	5/15/2015





Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV RR #007H (33-25-30)

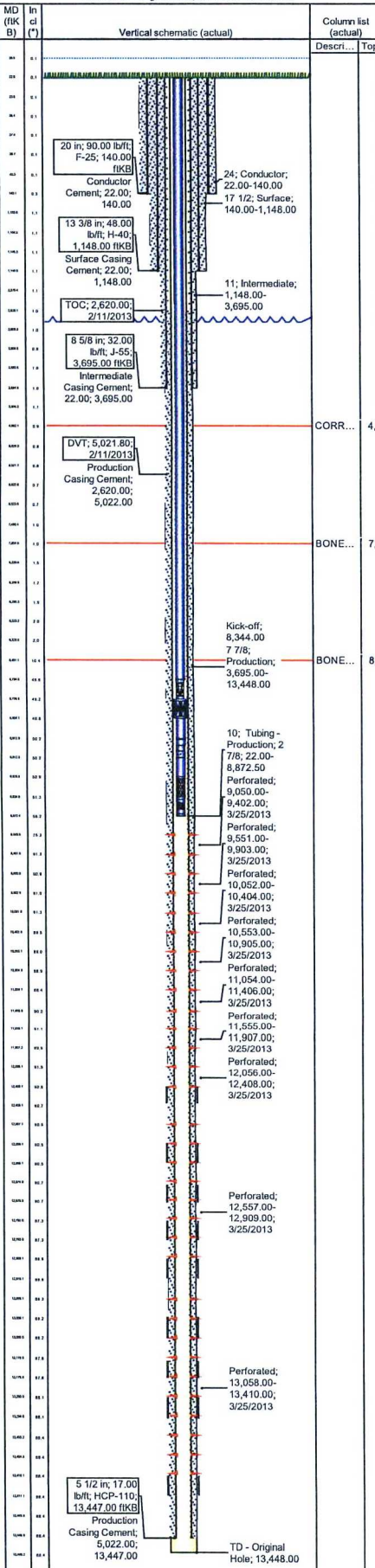
Well ID: 30-015-40762

Field: Corral Canyon

Sect: 33 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location: 150' FNL & 660' FWL, Sec 33, T25S-R30E

Horizontal - Original Hole, 6/11/2015 1:16:35 AM



Well Information									
Orig KB Elev (ft)	Gr Elev (ft)	KB-Grd (ft)	Spud Date	On Production Date	PBTD (All) (ftKB)				
3,219.00	3,197.00	22.00	1/26/2013	4/2/2013					
Wellbores									
Wellbore Name: Original Hole			Kick Off Depth (ftKB): 8,344.0						
Size (in)		Act Top (ftKB)		Act Blm (ftKB)					
24		22.0		140.0		140.0			
17 1/2		140.0		1,148.0		1,148.0			
11		1,148.0		3,695.0		3,695.0			
7 7/8		3,695.0		13,448.0		13,448.0			
Schematic Annotations									
Type	Depth (ftKB)	Annotation							
Casing Strings									
Csg Des	Wellbore	OD (in)	Wt (lb/ft)	Grade	Top Thread	Set @ (ftKB)	Top (ftKB)		
Conductor	Original Hole	20	90.00	F-25		140.00	22.0		
Surface	Original Hole	13 3/8	48.00	H-40	ST&C	1,148.00	22.0		
Intermediate	Original Hole	8 5/8	32.00	J-55	LT&C	3,695.00	22.0		
Production	Original Hole	5 1/2	20.00	HCP-110	Buttress	13,447.00	22.0		
Perforations									
Perf Date	Top (ftKB)	Blm (ftKB)	Zone			Current Status			
3/25/2013	9,050.0	9,402.0	1st Bone Spring, Original Hole			Active (9,050.0 - 9,051.0)			
3/25/2013	9,551.0	9,903.0	1st Bone Spring, Original Hole			Active (9,551.0 - 9,552.0)			
3/25/2013	10,052.0	10,404.0	1st Bone Spring, Original Hole			Active (10,052.0 - 10,053.0)			
3/25/2013	10,553.0	10,905.0	1st Bone Spring, Original Hole			Active (10,553.0 - 10,554.0)			
3/25/2013	11,054.0	11,406.0	1st Bone Spring, Original Hole			Active (11,054.0 - 11,055.0)			
3/25/2013	11,555.0	11,907.0	1st Bone Spring, Original Hole			Active (11,555.0 - 11,556.0)			
3/25/2013	12,056.0	12,408.0	1st Bone Spring, Original Hole			Active (12,056.0 - 12,057.0)			
3/25/2013	12,557.0	12,909.0	1st Bone Spring, Original Hole			Active (12,557.0 - 12,558.0)			
3/25/2013	13,058.0	13,410.0	1st Bone Spring, Original Hole			Active (13,058.0 - 13,059.0)			
Tubing Strings									
Tubing Description		Run Date	String Length (ft)		Set Depth (ftKB)				
Tubing - Production		5/14/2015	8,850.50		8,872.50				
No.	Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)			
10-1	2-7/8" 6.5 ppf L-80 8RD Tubing	272	2 7/8	6.50	L-80	22.0			
10-2	Jet Pump	1	2 1/2			8,794.0			
10-3	Weatherford Model "R" 5-1/2" Packer	1	4 5/8			8,799.0			
10-4	2-7/8" 6.5 ppf L-80 8RD Tubing Sub	1	2 7/8	6.50	L-80	8,804.0			
10-5	2-7/8" X Landing Nipple w/2.313 X Profile	1	2 7/8			8,812.0			
10-6	2-7/8" 6.5 ppf L-80 8RD Tubing Sub	1	2 7/8	6.50	L-80	8,812.5			
10-7	4" Perf Sub	1	2 7/8			8,820.5			
10-8	48" OSI Chemical Screen w/scale inhibitor	1	2 7/8			8,824.5			
Other Downhole Equipment									
Run Date	Des	OD (in)	Top (ftKB)	Blm (ftKB)					
1/27/2015	1/4 SS Cap String	1/4	20.00	8,323.00					
Rod Strings									
Rod Description		Run Date	String Length (ft)		Set Depth (ftKB)				
Rod		5/1/2014	8,303.30		8,325.30				
Item #	Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Top (ftKB)			
1-1	1 1/2" X 26' polished rod	1	1 1/2			22.0			
1-2	1" x 25' Temaris MMS Steel rod w/ 4 guides/rod	93	1	2.90		45.3			
1-3	7/8" x 25' Temaris MMS Steel rod w/ 4 guides/rod	61	7/8	2.22	D 97	2,370.3			
1-4	7/8" x 25' Temaris MMS Steel rod	45	7/8			3,895.3			
1-5	3/4" x 25' Temaris MMS Steel rod	99	3/4	1.63		5,020.3			
1-6	1" x 25' Temaris MMS Steel rod w/ 4 guides/rod	32	1	2.90		7,495.3			
1-7	250-175-RHBM-30-6-10 Panacea	1	1 1/2			8,295.3			
Cement									
Conductor Cement, 12/19/2012									
String: Conductor, 140.00ftKB					Cement Evaluation Results:				
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method					
1	22.0	140.0		Circulated					
Surface Casing Cement, 1/27/2013									
String: Surface, 1,148.00ftKB					Cement Evaluation Results:				
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method					
1	22.0	1,148.0	110.0	Circulated					
Fluid		Amount (sacks)	Class	Dens (lb/gal)	Yield (ft ³ /sack)				
Lead		800	C	13.70	1.65				
Tail		325	C	14.60	1.37				
Intermediate Casing Cement, 1/31/2013									
String: Intermediate, 3,695.00ftKB					Cement Evaluation Results:				
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method					
1	22.0	3,695.0	85.0	Circulated					
Fluid		Amount (sacks)	Class	Dens (lb/gal)	Yield (ft ³ /sack)				
Lead		1,350	C	12.30	1.81				
Tail		200	c	14.20	1.37				
Production Casing Cement, 2/11/2013									
String: Production, 13,447.00ftKB					Cement Evaluation Results:				
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method					
1	5,022.0	13,447.0	55.0	Temperature Log					
Fluid		Amount (sacks)	Class	Dens (lb/gal)	Yield (ft ³ /sack)				
Lead		450	H	12.40	2.19				
Tail		1,050	H	14.50	1.27				
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Vol Cement Ret (bbl)	Top Measurement Method					
2	2,620.0	5,022.0	0.0	Circulated					
Fluid		Amount (sacks)	Class	Dens (lb/gal)	Yield (ft ³ /sack)				
Lead		300	H	12.40	2.09				
Tail		100	H	14.50	1.29				

366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 24, 2015

RECEIVED OOD

2015 JUL 27 P 2:09

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV Phantom Banks #005H (22-25-30)
1st Bone Spring Shale
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is not a commercial well in the 1st Bone Spring Shale. Should you be in agreement that the 1st Bone Spring Shale is not commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Ross Sutton
FROM: Bryce Bezant
DATE: 7/15/2015
RE: Commercial Determination
PLU CVX JV Phantom Banks #005H (22-25-30)
Poker Lake Unit (1st Bone Spring Shale)
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Phantom Banks #005H was drilled in 2013 to a total depth of 13,482' laterally completed in the 1st Bone Spring Shale reservoir. The well is producing from perforations 8,451'-13,482'. On test 3/24/2013 the well flowed at the rate of 134 BOPD, 342 MCFD, and 2626 BWPD. This well has an expected recovery of approximately 156 MBOE (13:1 mcf/bbl) from the current completion.

The capital investment was taken from the AFE report and operating costs from the LIOR statement which included water hauling charges. The most recent strip price file was utilized adjusting for current area differentials. The Phantom Banks #005H will not be a commercial well and should not be incorporated into a participating area.



R. Bryce Bezant, P.E.

RBB/tah

Cc: Travis Mears
Tom McCarthy
Steve Johnson

ECONOMIC PROJECTION

Date : 7/21/2015

Lior: 1004704

11:04:06AM

Project Name : 1-1-2015 NSAI Review For BOPCO, LP
 Partner : All cases
 Case Type : LEASE CASE
 Archive Set : NS0115

As Of Date : 10/01/2012
 Discount Rate (%) : 5.00
 1004704/PLU CVX JV PB/005H/1ST

Lease Name : 1004704/PLU CVX JV PB/005H/1ST
 Reserv Cat. : Proved Producing
 Field : CORRAL DRAW; BONE SPRING
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

Cum Oil (mbbls) : 0.00
 Cum Gas (mmcf) : 0.00

Risk: 0.000 Inherited/ 0.000 Compounded

Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMCF)	Dry Gas (MMCF)	NGL (MGal)	Oil (Mbbbl)	Gas (MMCF)	NGL (MGal)
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2013	40.427	209.698	92.687	847.180	33.593	77.017	703.956
2014	23.376	68.732	30.380	277.677	19.424	25.244	230.733
2015	11.127	25.547	11.292	103.210	9.246	9.383	85.761
2016	8.268	17.038	7.531	68.833	6.870	6.258	57.196
2017	6.623	12.966	5.731	52.383	5.503	4.762	43.527
2018	5.572	10.585	4.679	42.763	4.630	3.888	35.533
2019	4.830	8.994	3.976	36.338	4.013	3.303	30.194
2020	4.287	7.871	3.479	31.798	3.562	2.891	26.422
2021	3.843	6.983	3.086	28.210	3.194	2.565	23.441

Rem	18.297	32.902	14.543	110.438	15.203	12.084	110.438
Total	126.650	401.316	177.382	1,621.298	105.239	147.393	1,347.202
Ult.	126.650	401.316					

Year	Average Price			Net Revenue			
	Oil \$/BBL	Gas \$/MCF	NGL \$/Gal	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2012	0.00	0.00	0.00	0.000	0.000	0.000	0.000
2013	87.15	3.50	0.75	2,927.735	269.401	527.967	3,725.103
2014	86.80	4.10	0.87	1,686.046	103.539	200.782	1,990.367
2015	50.55	2.57	0.44	467.349	24.158	37.584	529.091
2016	55.69	2.89	0.46	382.596	18.105	26.509	427.209
2017	57.03	3.06	0.46	313.844	14.581	20.174	348.599
2018	58.44	3.13	0.46	270.573	12.187	16.469	299.229
2019	59.72	3.20	0.46	239.686	10.557	13.994	264.237
2020	60.79	3.29	0.46	216.527	9.518	12.246	238.291
2021	61.46	3.40	0.46	196.292	8.711	10.864	215.868
Rem	62.06	3.81	0.46	943.512	46.072	51.185	1,040.768
Total	72.64	3.51	0.68	7,644.159	516.830	917.774	9,078.762

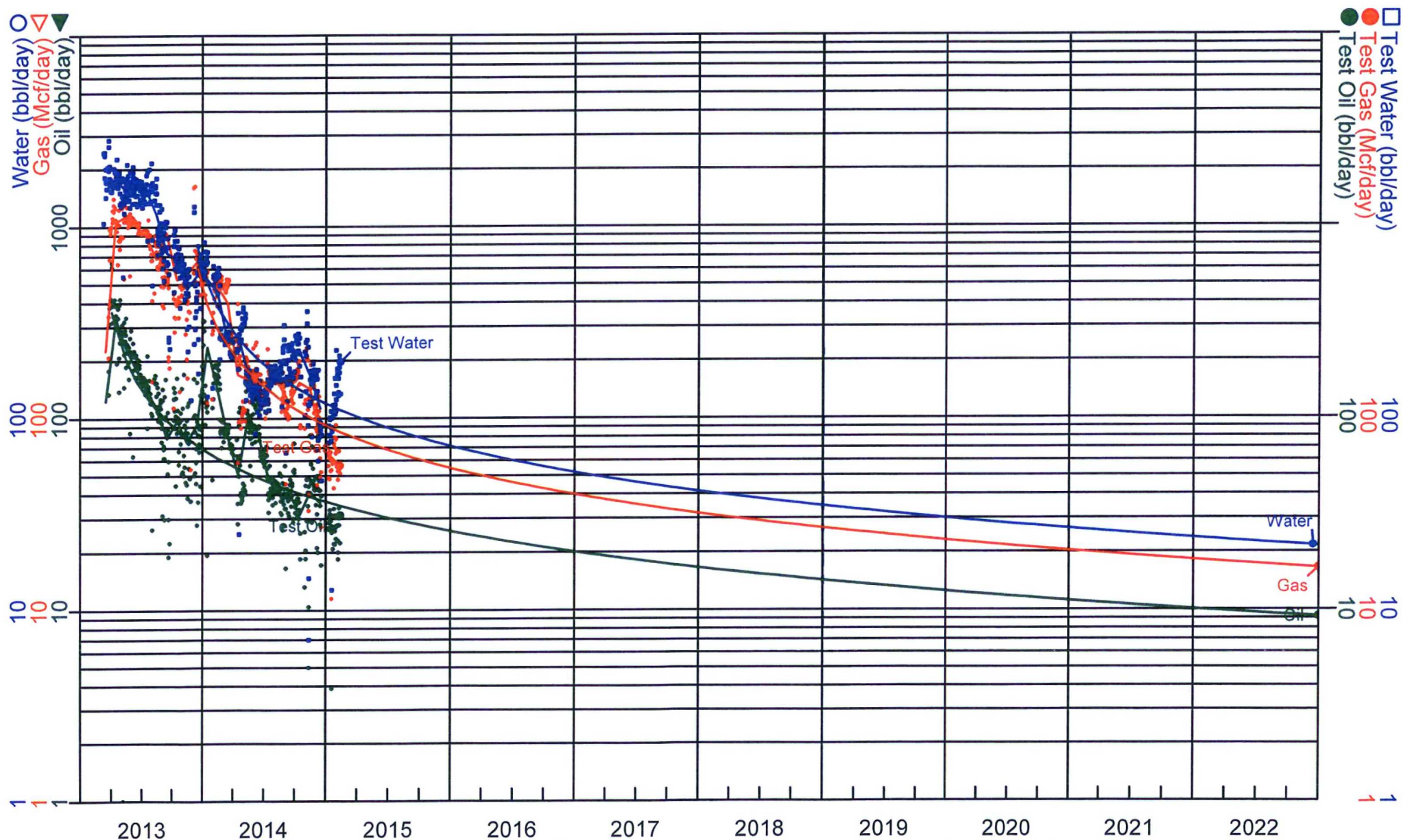
Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2012	0.000	0.000	6,010.320	0.000	-6,010.320	-6,010.320	-6,010.320	-6,010.320
2013	9.332	0.411	0.000	1,482.070	2,233.291	-3,777.029	2,157.685	-3,852.635
2014	144.699	6.460	250.000	621.600	967.608	-2,809.421	898.714	-2,953.921
2015	38.302	1.718	0.000	173.899	315.173	-2,494.248	275.744	-2,678.177
2016	30.882	1.387	0.000	159.408	235.533	-2,258.716	196.427	-2,481.750
2017	25.185	1.132	0.000	152.473	169.809	-2,088.907	134.831	-2,346.919
2018	21.609	0.972	0.000	148.418	128.230	-1,960.676	96.959	-2,249.960
2019	19.075	0.858	0.000	145.710	98.594	-1,862.082	70.998	-2,178.962
2020	17.199	0.774	0.000	143.796	76.522	-1,785.560	52.482	-2,126.479
2021	15.579	0.701	0.000	142.283	57.304	-1,728.256	37.428	-2,089.051
Rem	75.138	3.380	0.000	917.979	44.271	44.271	31.582	31.582
Total	396.999	17.792	6,260.320	4,087.636	-1,683.985	-1,683.985	-2,057.470	-2,057.470

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0	Revenue Int :	0.83094000		
Initial Rate :	18.42	Disc. Initial Invest. (m\$) :	6,242.704	5.00% :	-2,057.47
Abandonment :	0.30	Internal ROR (%) :	>1000.0	9.00% :	-2,303.18
Initial Decline :	99.90	ROIInvestment (disc/undisc) :	0.67 / 0.73	10.00% :	-2,358.61
Beg Ratio :	0.14	Years to Payout :	0.00	12.00% :	-2,463.24
End Ratio :	0.56	Abandonment Date :	08/13/2028	15.00% :	-2,606.25
				20.00% :	-2,813.72
				30.00% :	-3,143.24
				40.00% :	-3,395.32
				50.00% :	-3,596.19
				60.00% :	-3,761.19

	Initial	1st Rev.	2nd Rev.
Working Interest :	1.00000000	0.00000000	0.00000000
Revenue Interest :	0.83094000	0.00000000	0.00000000
Rev. Date :			

1004704/PLU CVX JV PB/005H/1ST
Oper: BOPCO
Major Phase: Gas

Field: CORRAL DRAW; BONE SPRING
EDDY, NM
ECL Date: 08/13/2028



NS0115 Oil(ARPs)
Segment: 1 of 1
Cum: 0 bbl
Rem: 126,650 bbl
EUR: 126,650 bbl
04/03/2013 - 08/13/2028
Qi: 0,958 / Qact: 9,258
Qf: 169
D: 99.900 / Dmin: 8.500
B: 1.20000

NS0115 Gas(ARPs)
Segment: 1 of 1
Cum: 0 Mcf
Rem: 401,316 Mcf
EUR: 401,316 Mcf
12/17/2013 - 08/13/2028
Qi: 18,495 / Qact: 18,416
Qf: 304
D: 99.900 / Dmin: 8.500
B: 1.20000

NS0115 Water(Formula)
{Gas} x {WGR}
Cum: 0 bbl
Rem: 551,598 bbl
EUR: 551,598 bbl
03/01/2013 - 08/13/2028
Qi: 0 / Qact: 39,039
Qf: 395

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU CVX JV PHANTOM BANKS #005H (22-25-30) _____ FORMATION _____ BONE SPRING _____

LOCATION _____ UNIT, _____ 325 _____ FEET FROM _____ NORTH _____ LINE & _____ 1980 _____ FEET FROM _____ WEST _____ LINE _____

SECTION _____ 22 _____ TOWNSHIP _____ 25S _____ RANGE _____ 30E _____ COUNTY _____ Eddy _____, NEW MEXICO _____

SPUD DATE _____ 12/1/2013 _____ COMPLETION DATE _____ 3/20/2013 _____ INITIAL PRODUCTION _____ 3/24/2013 _____

PERFORATIONS _____ 8451-13482 _____

BHL: 333' FSL & 1974' FWL SEC 22 T25S R30E _____

STIMULATION: _____

ACID _____

FRACTURE _____ See Attached _____

POTENTIAL _____ (3/24/2013): 134 BOPD, 342 MCFPD, 2626 BWPD _____

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED	POTENTIALLY PRODUCTIVE
Area (A) proration unit size, acres	160	
Porosity (Φ), %	8.8%	
Water saturation (Sw), %	23%	
Net Thickness (H), ft.	65	
Temperature (T), Fahrenheit	140	
Bottom Hole pressure (P), psia	4,370	
Recovery factor (RF), %	12%	
Recoverable oil, MBO *(See eq. below)	305.1	

*Sometimes unable to match performance due to volumetric uncertainty or low recovery efficiency of shale gas wells.

Formula = $((7758 \text{ rb/ac-ft}) (\text{por}) (1-S_w) / (\text{Boi rbo/stb})(RF)(A) (h)) / 1000 \text{ bo/Mbo}$ Boi = 2.15 rb/stb

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 5/31/2015 44,914 BBL Oil 322,785 MCF Gas

INITIAL RATE (qi) 360 BOPD

ECONOMIC LIMIT (qi) 4.8 BOPD

HYPERBOLIC DECLINE RATE, dy n = 1.2, d = 99%/yr

REMAINING MBO (Q) = 17

ULTIMATE RECOVERABLE MBO 62

(Attach plot showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,670,436 (to the depth of formation completed)

COMPLETION COST \$4,005,504

GROSS TOTAL COST \$6,675,840

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.000	0.0	0.0	-6010.3
2	40.427	3725.1	1491.8	2157.7
3	23.376	1990.4	772.8	898.7
4	11.127	529.1	213.9	275.7
5	8.268	427.2	191.7	196.4
6	6.623	348.6	178.8	134.8
7	5.572	299.2	171.0	97.0
8	4.830	264.2	165.6	71.0
9	4.287	238.3	161.8	52.5
10	3.843	215.9	158.6	37.4
REMAINDER	18.297	1040.8	996.5	31.6
TOTAL	126.650	9078.8	4502.4	-2057.5

WELL IS NOT COMMERCIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

AUG 20 2013

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT

Lease Serial No.
NMLC063875A

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____		7. Unit or CA Agreement Name and No. 891000303X	
2. Name of Operator BOPCO LP		8. Lease Name and Well No. PLU PHANTOM BANKS 22 25 30 USA 1H	
3. Address MIDLAND, TX 79702		9. API Well No. 30-015-40763-00-S1	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface NENW 325FNL 1980FWL 32.122077 N Lat, 103.870708 W Lon At top prod interval reported below NENW 789FNL 1995FWL 32.122077 N Lat, 103.870708 W Lon At total depth SESW 333FSL 1974FWL		10. Field and Pool, or Exploratory CORRAL CANYON	
14. Date Spudded 12/01/2013		15. Date T.D. Reached 12/19/2012	
16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 03/20/2013		17. Elevations (DF, KB, RT, GL)* 3241 GL	
18. Total Depth: MD 13482 TVD 9086		19. Plug Back T.D.: MD TVD	
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CBL GR CCL CNL GR CCL	
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)			

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J-55	54.5	0	1312		1600		0	
11.000	8.625 J-55	32.0	0	3958		1450		0	
7.875	5.500 HCP-110	17.0	0	12471	5038	2150		2850	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8666							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) AVALON SAND	8451	13482	9274 TO 13445	342.000	216	OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9274 TO 13445	FRAC USING 2450990# SAND, 47918 BBLs FLUID ACROSS 9 STAGES

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
03/24/2013	03/24/2013	24	→	134.0	342.0	2626.0	42.0		ELECTRIC PUMP SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→	134	342	2626	2552	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #215149 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

RECLAMATION
DUE 9-20-13

APPLIED FOR RECORD
AUG 18 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
CAPTURED

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				RUSTLER	1204
				SALADO	1502
				RAMSEY	3754
				BELL CANYON	3972
				CHERRY CANYON	4906
				BRUSHY CANYON	5919
				BONE SPRING	7755

32. Additional remarks (include plugging procedure):
WELL not logged. Formation tops from logs PLU Big Sinks 15-25-30 USA #1

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #215149 Verified by the BLM Well Information System.

For BOPCO LP, sent to the Carlsbad

Committed to AFMSS for processing by KURT SIMMONS on 08/07/2013 (13KMS6920SE)

Name (please print) TRACIE J CHERRY

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 07/29/2013

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.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

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

Effective 04/01/14

¹ API Number 30-015-40763	² Pool Code 96238	³ Pool Name Corral Canyon; Bone Spring
⁴ Property Code 313363	⁵ Property Name Poker Lake Unit CVX JV PB	
⁷ OGRID No. 260737	⁸ Operator Name BOPCO, LP	⁶ Well Number 5H ⁹ Elevation 3241

¹⁰ Surface Location									
UL or lot no. C	Section 22	Township 25S	Range 30E	Lot Idn	Feet from the 325	North/South line North	Feet from the 1980	East/West line West	County Eddy

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. N	Section 22	Township 25S	Range 30E	Lot Idn	Feet from the 333	North/South line South	Feet from the 1974	East/West line West	County Eddy

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ 	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. <i>Tracie J Cherry</i> <i>04/01/14</i> Signature Date Tracie J Cherry Printed Name tjcherry@basspet.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.
	Date of Survey Signature and Seal of Professional Surveyor:
	Certificate Number



Downhole Profile - Vertical Wells

Well Name: POKER LAKE UNIT CVX JV PB #005H (22-25-30)

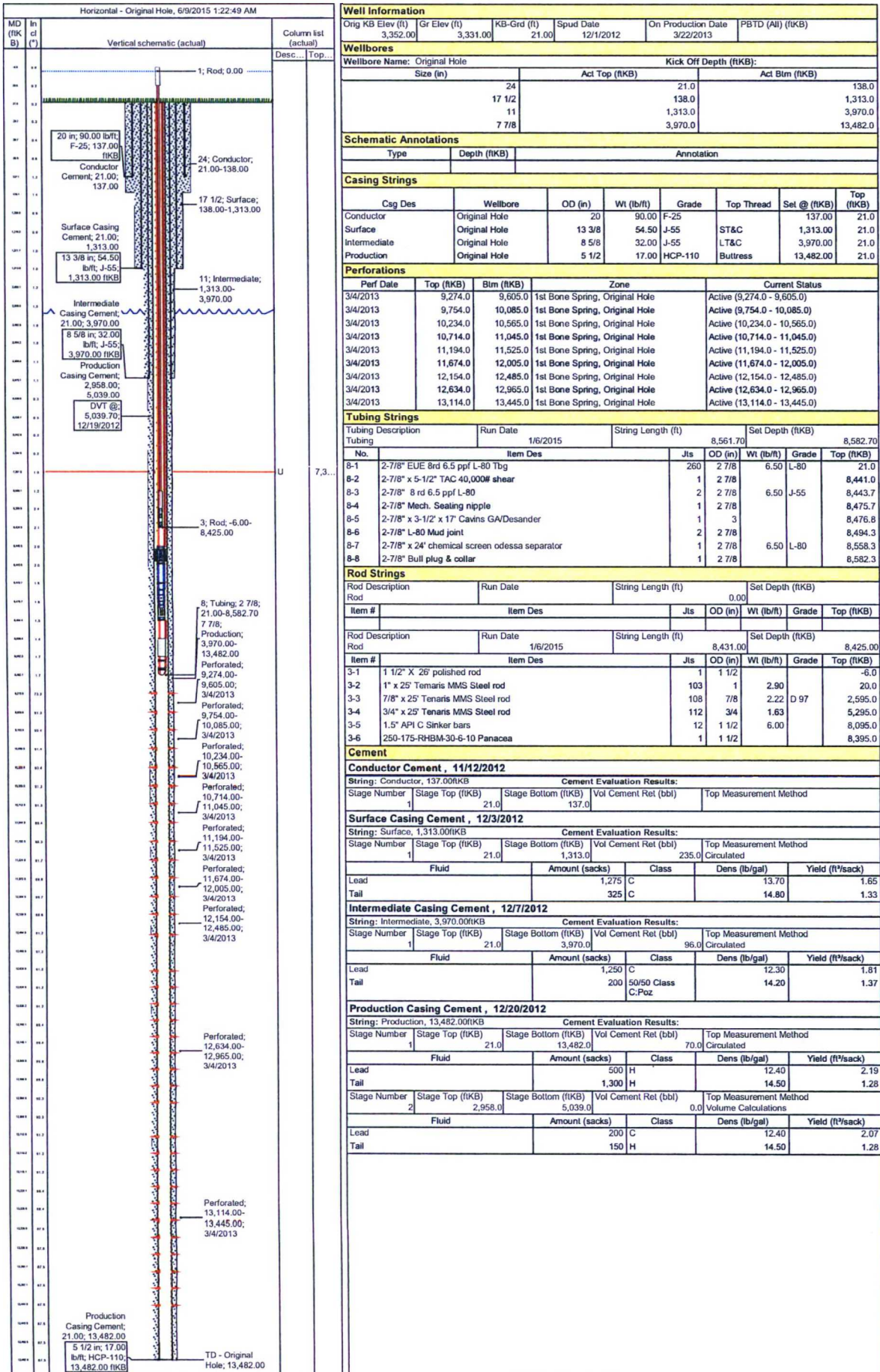
Field: Corral Canyon

BOPCO, L.P. - West Texas

Well ID: 30-015-40763

Sect: 22 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location: 325' FNL & 1980' FWL, Sec 22, T25S-R30E





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV PB #005H (22-25-30)

Well ID: 30-015-40763

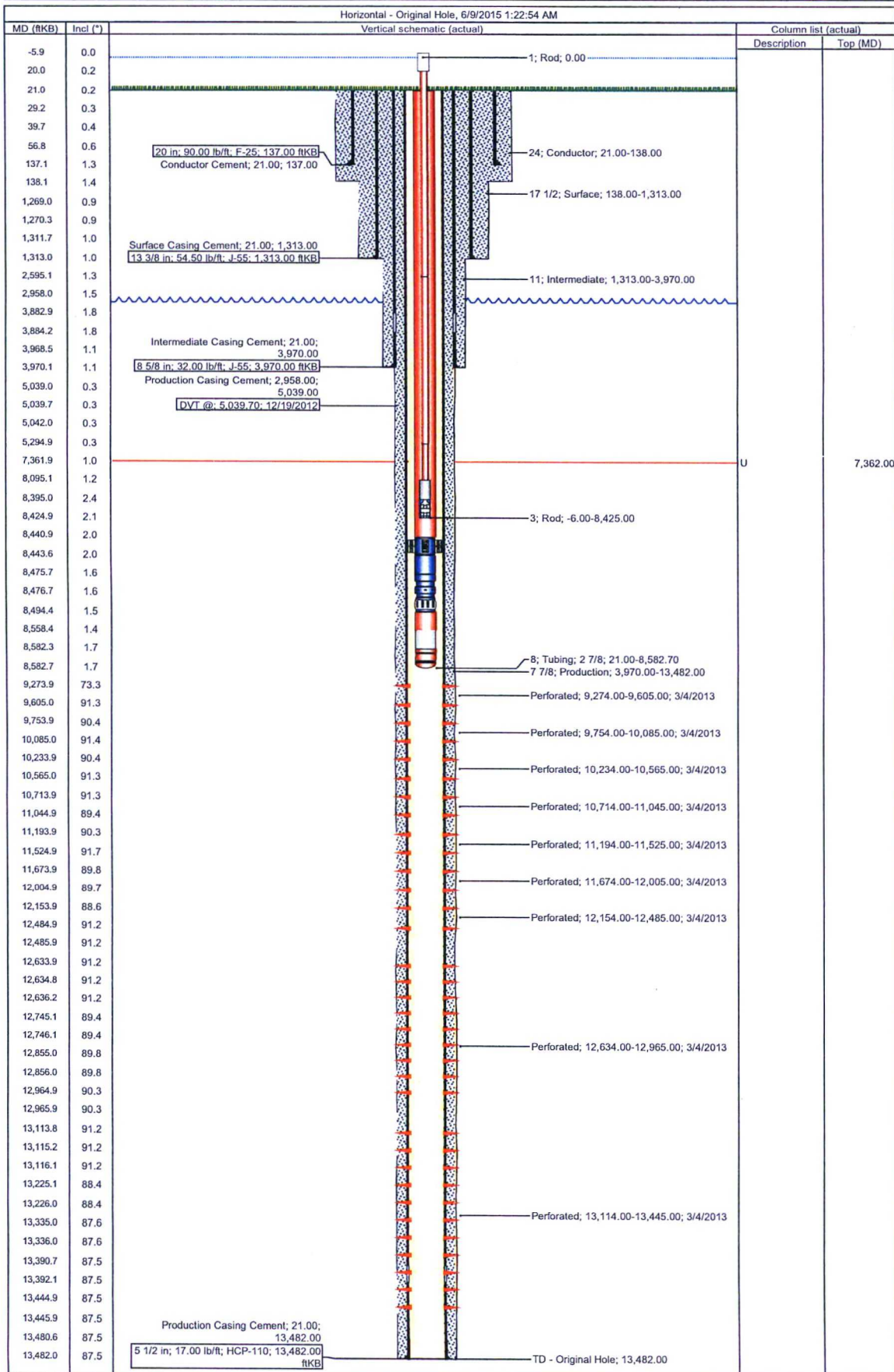
Field: Corral Canyon

Sect: 22 Town: 25S Rng: 30E Eddy Co., State: New Mexico

Blk: Survey:

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Job Start Date	Job End Date
Maintenance	Tubing		12/30/2014	1/7/2015





R: 247
C: 445

Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148

SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

August 21, 2015

Conoco Phillips Company
P. O. Box 4289
Farmington, New Mexico 87499-4289

Attention: Ms. Valerie Wells

Re: San Juan 28-7 Unit #152E
San Juan 28-7 Unit #155G
Commercial Determination
Mesaverde Formation
San Juan County, New Mexico

2015 AUG 27 P 3:08
1200870000

Dear Ms. Wells:

Thank you for your letter of April 23, 2015 with data that supports your commercial determination regarding the following San Juan 28-7 Unit Wells:

Well Name and Number	Dedication	Completion Date	Determination
San Juan 28-7 Unit # 152E	W/2 Sec. 21-27N-7W	03/06/2013	Commercial
San Juan 28-7 Unit #155G	W/2 Sec. 21-27N-7W	03/06/2015	Commercial

On August 07, 2015 the Bureau of Land Management (BLM) advised this office that they concurred with your determination of the commerciality for the above-mentioned Mesaverde wells.

The Commissioner of Public Lands concurs with the BLM and your determination that the above mentioned well is a commercial wells in the Mesaverde formation and should be included in the Mesaverde participating area.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
OCD-Attention: Mr. Daniel Sanchez
BLM Farmington-Attn.: Mr. Hewitt
TRD-Attn.: Ms. Judy Vigil
RMD



Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148

SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

August 21, 2015

Conoco Phillips Company
3401 E. 30th St.
Farmington, New Mexico 87402

Attention: Ms. Valerie Wells

Re: San Juan 28-7 Unit #217N
Commercial Determination
Mesaverde Formation
San Juan County, New Mexico

Dear Ms. Wells:

Thank you for your letter of April 23, 2015 with data that supports your commercial determination regarding the following San Juan 28-7 Unit #217NWell:

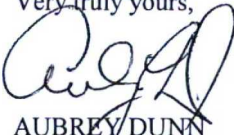
Well Name and Number	Dedication	Completion Date	Determination
San Juan 28-7 Unit #217N	N/2 Sec. 28-27N-07W	12/12/2012	Non-Commercial

On May 04, 2015 the Bureau of Land Management (BLM) advised this office that they concurred with your determination of the commerciality for the above-mentioned Mesaverde Formation well.

The Commissioner of Public Lands concurs with the BLM and your determination that the above mentioned well is a non-commercial well in the Mesaverde formation.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
OCD-Attention: Mr. Daniel Sanchez
BLM Farmington-Attn.: Mr. Hewitt
TRD-Attn.: Ms. Judy Vigil
RMD

2015 AUG 27 P 3:09
RECEIVED OCD

366

BOPCO, L.P.
201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400

July 17, 2015

RECEIVED OGD
2015 JUL 20 P 1:55

FEDERAL EXPRESS

Bureau of Land Management
Carlsbad District Office
620 E. Green St.
Carlsbad, New Mexico 88220
Attn: Mr. Ed Fernandez

New Mexico State Land Office
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501
Attention: Mr. Pete Martinez

New Mexico Oil Conservation Division
1220 St. Francis
Santa Fe, New Mexico 87505
Attention: Mr. William Jones

Re: Commercial Determination
PLU CVX JV BS #007H (PLU Big Sinks 2-25-30 ST #1H)
Bone Spring
Eddy County, New Mexico

Gentlemen:

Please find attached hereto one (1) copy of Bass' commercial determination worksheets and exhibits which indicate that the subject well is a commercial well in the Bone Spring reservoir. Should you be in agreement that the Bone Spring is commercial, please signify by executing one (1) copy of this letter in the space provided below and returning same to the undersigned at your earliest convenience.

Thank you very much and should you have any questions or comments in regard to the attached commercial determination, please do not hesitate to contact the undersigned.

Very truly yours,



R. Travis Mears

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____



INTER-OFFICE MEMORANDUM

TO: Frank McCreight
FROM: Bryce Bezant
DATE: 1/20/2014
RE: Commercial Determination
PLU Big Sinks 2-25-30 ST #1H
Poker Lake Unit (Bone Spring) Field
Eddy County, New Mexico

Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The Big Sinks 2-25-30 ST #1H was drilled in 2011 to a total depth of 13,811' laterally completed in the Bone Spring reservoir. The well is producing from perforations 9,400'-13,811'. On test 12/28/2011 the well flowed at the rate of 499 BOPD, 1183 MCFD, and 1430 BWPD. This well has an expected recovery of approximately 185 MBOE (13:1 mcf/bbl) from the current completion.

The most recent strip price file was utilized adjusting for current area differentials. Plant yields are 3.2 gpm with a gas sales fraction of 56.7%. Actual operating costs inclusive of water expense were used through December, 2013. Starting January, 2014 operating costs of \$30,000/month plus \$1.25/bbl water expense were used until the economic limit was reached. The Big Sinks 2-25-30 ST #1H will be a commercial well and should be incorporated into a participating area.


R. Bryce Bezant

RBB/tah

Cc: Ross Sutton
Andy Morrison
Steve Johnson

ECONOMIC PROJECTION

Date : 1/20/2014

Lior: 1004607

3:10:01PM

Project Name : BOPCO, L.P.
 Partner : All cases
 Lease Type : LEASE CASE
 Archive Set : 1-1-2014

As Of Date : 03/01/2011
 Discount Rate (%) : 5.00

Lease Name : 1004607/PLU BIG SINKS 02-25-30 ST/0C
 Reserv Cat. : Proved Producing
 Field : WILDCAT G-05 S263010;BONE SPRING
 Operator : BOPCO
 Reservoir : BONE SPRING
 Co., State : EDDY, NM

1004607/PLU BIG SINKS 02-25-30 ST/0

Cum Oil (Mbbbl) : 0.00
 Cum Gas (MMcf) : 0.00

Risk: 0.000 Inherited/ 0.000 Compounded
 Sales

Year	Gross Wet Production		Gross Dry Gas & NGL				
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2011	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2012	101.252	464.761	263.519	1,254.855	78.470	204.228	972.512
2013	27.426	262.672	148.935	709.214	21.255	115.425	549.641

Item	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	128.678	727.433	412.455	1,964.069	99.725	319.652	1,522.154
Net	128.678	727.433					

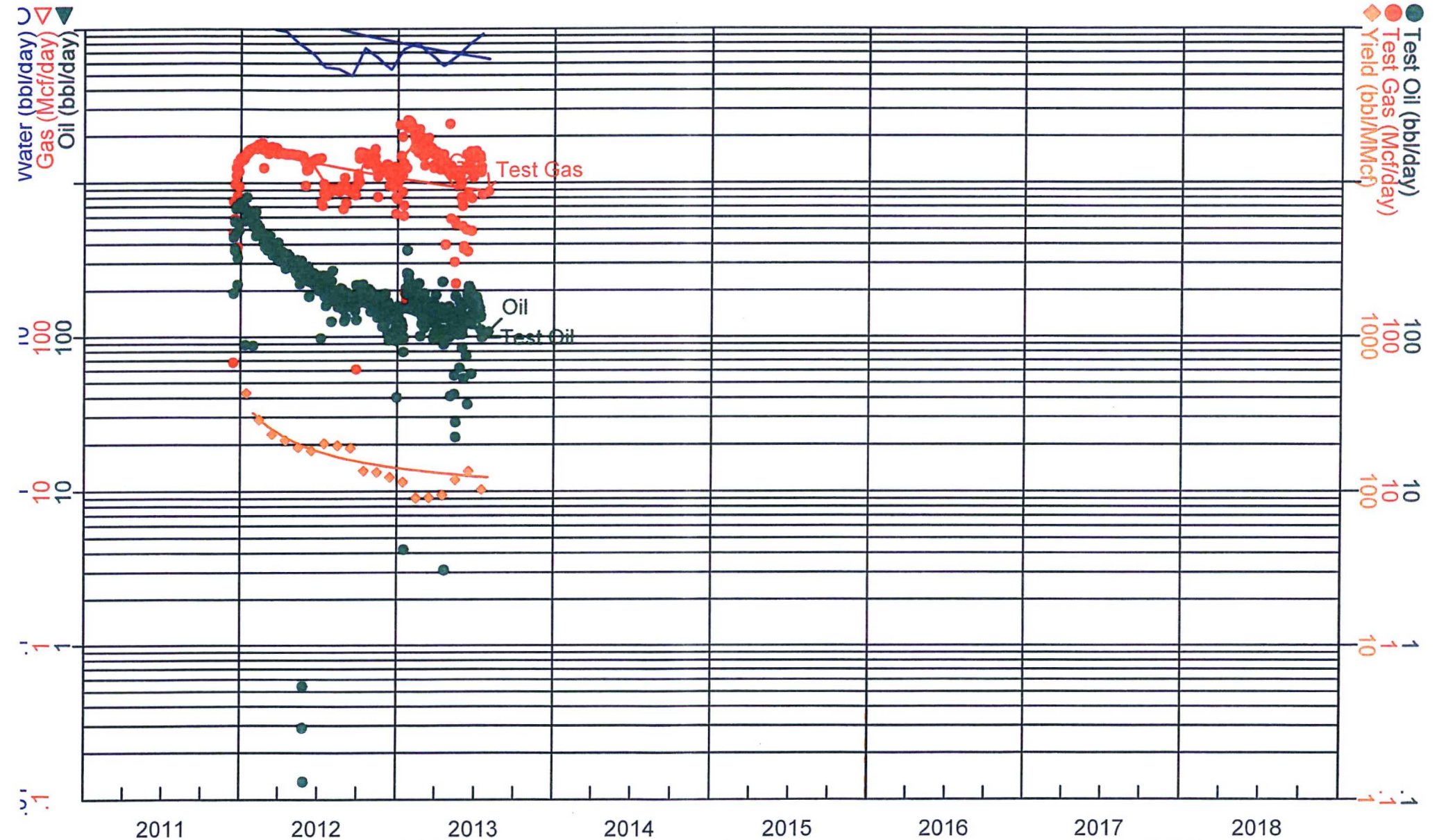
Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	92.11	2.64	0.73	7,227.53	539.48	706.04	8,473.05
2013	91.03	3.47	0.73	1,934.78	400.77	399.04	2,734.59

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	91.88	2.94	0.73	9,162.31	940.25	1,105.08	11,207.64

Year	Expenditures				Future Net Revenue			
	Total Sev Taxes (M\$)	Total Adv Taxes (M\$)	Net Investments (M\$)	Total Net Opcosts (M\$)	Annual (M\$)	Cumulative (M\$)	Disc. Ann. CF 5.00 % (M\$)	Cum. Disc. CF 5.00 % (M\$)
2011	0.00	0.00	6,334.00	0.00	-6,334.00	-6,334.00	-6,144.44	-6,144.44
2012	558.54	40.66	0.00	1,476.98	6,396.87	62.87	6,026.01	-118.43
2013	226.40	16.20	0.00	911.72	1,580.27	1,643.14	1,421.34	1,302.91

Rem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	784.94	56.85	6,334.00	2,388.70	1,643.14	1,643.14	1,302.91	1,302.91

Major Phase :	Gas	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0 0	Revenue Int :	0.77500000		
Initial Rate :	47,890.00 Mcf/month	Disc. Initial Invest. (m\$) :	6,144.441	5.00% :	1,302.91
Abandonment :	33,507.00 Mcf/month	Internal ROR (%) :	31.10	9.00% :	1,054.59
Initial Decline :	49.00 % year b = 1.200	ROInvestment (disc/undisc) :	1.21 / 1.26	10.00% :	995.63
Beq Ratio :	0.29 bbl/Mcf	Years to Payout :	1.82	12.00% :	881.28
End Ratio :	0.10 bbl/Mcf	Abandonment Date :	07/31/2013	15.00% :	718.39
Forecast Start :	02/01/2012			20.00% :	468.54
		Initial	1st Rev.	30.00% :	41.60
		Working Interest :	0.00000000	40.00% :	-302.06
		Revenue Interest :	0.00000000	50.00% :	-576.45
		Rev. Date :		60.00% :	-793.25



1-1-2014 Oil(ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 Rem: 423,818 bbl
 EUR: 423,818 bbl
 01/09/2012 - 05/21/2085
 Qi: 21,202 / Qact: 20,329
 Qf: 27
 D: 98,885 / Dmin: 5.000
 R: 1.20000

1-1-2014 Yield(Formula)
 {Oil} / ({Gas} / 1000)
 Cum: N/A
 Rem: N/A
 EUR: N/A
 01/01/2012 - 05/21/2085
 Qi: 0.000 / Qact: 429.471
 Qf: 89.031

1-1-2014 Gas(ARPs)
 Segment: 1 of 1
 Cum: 0 Mcf
 Rem: 3,828,277 Mcf
 EUR: 3,828,277 Mcf
 02/01/2012 - 05/21/2085
 Qi: 51,708 / Qact: 47,890
 Qf: 304
 D: 49,000 / Dmin: 5.000
 R: 1.20000

1-1-2014 Water(ARPs)
 Segment: 1 of 1
 Cum: 0 bbl
 Rem: 2,551,384 bbl
 EUR: 2,551,384 bbl
 01/21/2012 - 05/21/2085
 Qi: 48,694 / Qact: 51,597
 Qf: 193
 D: 67,210 / Dmin: 5.000
 R: 1.20000

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL _____ PLU Big Sinks 2-25-30 ST _____ FORMATION _____ BONE SPRING _____
 LOCATION B P UNIT, 350 FEET FROM SOUTH LINE & 1980 FEET FROM EAST LINE
 SECTION 2 TOWNSHIP 25S RANGE 30E COUNTY Eddy, NEW MEXICO
 SPUD DATE 9/24/2011 COMPLETION DATE 11/30/2011 INITIAL PRODUCTION 12/20/2011
 PERFORATIONS 9400-13785
 BHL: 380' FNL & 427' FEL SEC 27 T24S R30E

STIMULATION:

ACID _____

 FRACTURE See Attached

POTENTIAL (12/28/2011): 499 BOPD, 1183 MCFPD, 1430 BWPD

(Attach Copy of C-105. Attach Copy of Wellbore Sketch of Completed Well.)

VOLUMETRIC CALCULATION

	SANDS PERFORATED		SANDS NOT PERFORATED BUT POTENTIALLY PRODUCTIVE	
Area (A) proration unit size, acres	160.5	_____	_____	_____
Porosity (Φ), %	7%	_____	_____	_____
Water saturation (Sw), %	22%	_____	_____	_____
Net Thickness (H), ft.	112	_____	_____	_____
Temperature (T), Fahrenheit	136	_____	_____	_____
Bottom Hole pressure (P), psia	4,313	_____	_____	_____
Recovery factor (RF), %	39%	_____	_____	_____
Recoverable gas, BCF *(See eq. below)	4.8	_____	_____	_____

*Sometimes unable to match performance due to volumetric uncertainty and limited drainage in unconventional reservoirs.

Formula = $(7758) (A) (h) (por) (1-S_w)(RF)/B_{gi}$ Bgi = 0.62

Continued

PERFORMANCE DATA

(If sufficient history exists, attach plot of oil production rate v time.)

CUMULATIVE PRODUCTION TO 6/30/2012 69,826 BBL Oil 269,239 MCF GasINITIAL RATE (qi) 1,505ECONOMIC LIMIT (qi) 131HYPERBOLIC DECLINE RATE, dy n = 0, d = 100.2%/yrREMAINING MCF (Q) = 0ULTIMATE RECOVERABLE MCF 727,433

(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,533,600 (to the depth of formation completed)COMPLETION COST \$3,800,400GROSS TOTAL COST \$6,334,000

<u>YEAR</u>	<u>GROSS MCF MMCF</u>	<u>BFIT NET INCOME (\$M)</u>	<u>OPERATING COST (\$M) INCL SEV & AD VAL TAX</u>	<u>5% NET BFIT DISCOUNTED CASH FLOW</u>
ZERO				
1	<u>0.000</u>	<u>0.0</u>	<u>0.0</u>	<u>-6144.1</u>
2	<u>101.252</u>	<u>8473.1</u>	<u>2076.2</u>	<u>6026.0</u>
3	<u>27.426</u>	<u>2734.6</u>	<u>1154.3</u>	<u>1421.3</u>
4			<u>0.0</u>	
5			<u>0.0</u>	
6			<u>0.0</u>	
7			<u>0.0</u>	
8			<u>0.0</u>	
9			<u>0.0</u>	
10			<u>0.0</u>	
REMAINDER				
TOTAL	128.678	11207.6	3230.5	1303.2

WELL IS COMMERCIAL

Submit To Appropriate District Office Two Copies District I 1625 N French Dr., Hobbs, NM 88240 District II 811 S First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S St Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised August 1, 2011 1. WELL API NO. <div style="text-align: center;">30-015-39344</div> 2. Type of Lease <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FLE <input type="checkbox"/> ILL/INDIAN 3. State Oil & Gas Lease No.
--	--	---

WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: <input checked="" type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input type="checkbox"/> C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13 K NMAC)						5. Lease Name or Unit Agreement Name PLU BIG SINKS 2 25 30 ST. 6. Well Number. <div style="text-align: center;">1H</div>				
7. Type of Completion: <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input type="checkbox"/> OTHER										
8. Name of Operator Chesapeake Operating, Inc. BOPCO						9. OGRID <div style="text-align: center;">147179</div>				
10. Address of Operator P.O. Box 18496 Oklahoma City, OK 73154						11. Pool name or Wildcat WILDCAT; BONE SPRING				

12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	O	2	25S	30E		350'	S	1980'	E	EDDY
BII:	2 B	2	25S	30E	2	100'	N	1971'	E	EDDY

13. Date Spudded 09/24/2011	14. Date T.D. Reached 10/17/2011	15. Date Rig Released 10/19/2011	16. Date Completed (Ready to Produce) 11/30/2011	17. Elevations (DIP and RKB, RT, GR, etc.) 3553' GR
18. Total Measured Depth of Well 13811'		19. Plug Back Measured Depth 13811'		20. Was Directional Survey Made? Yes
21. Type Electric and Other Logs Run Laterolog/Induction log				

22. Producing Interval(s), of this completion - Top, Bottom, Name 9400'-13785' (OA)				
--	--	--	--	--

23 CASING RECORD (Report all strings set in well)				
CASING SIZE	WEIGHT L.B./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD AMOUNT PULLED
13 3/8"	48#	756'	17 1/2"	850 sxs
8 5/8"	32#	3995'	11"	1550 sxs
5 1/2"	20#	13811'	7 7/8"	1148 sxs

24. LINER RECORD				25. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	8642'	8631'

26. Perforation record (interval, size, and number) 9400'-13811' (OA)	<div style="border: 2px solid black; padding: 5px;"> RECEIVED FEB 15 2012 NMOCD ARTESIA </div>	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED 9400'-13811' 4,019,257 lbs sand 3,609,732 bbs fresh water 25,000 gals 10% & 15 % HCL Acid
--	---	--

28 PRODUCTION							
Date First Production 12/20/2011		Production Method (Flowing, gas lift, pumping - Size and type pump)			Well Status (Prod or Shut-in) Prod.		
Date of Test 12/28/2011	Hours Tested 24	Choke Size 14/63	Prod'n For Test Period	Oil - Bbl 499	Gas - MCF 1183	Water - Bbl. 1430	Gas - Oil Ratio
Flow Tubing Press. 650	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl. 499	Gas - MCF 1183	Water - Bbl. 1430	Oil Gravity - API - (Corr)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.) Flared	30. Test Witnessed By
--	-----------------------

31. List Attachments C-104	
-------------------------------	--

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit	
33. If an on-site burial was used at the well, report the exact location of the on-site burial.	

Latitude	Longitude	NAD 1927 1983
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief		
Signature <i>Bryan Arrant</i>	Printed Name Bryan Arrant	Title Regulatory Specialist II Date 02/13/2012
E-mail Address bryan.arrant@chk.com		

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico			Northwestern New Mexico	
T. Anhy	975'	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	1046'	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	4027'	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates		T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers		T. Devonian	T. Cliff House	T. Leadville
T. Queen		T. Silurian	T. Menefee	T. Madison
T. Grayburg		T. Montoya	T. Point Lookout	T. Elbert
T. San Andres		T. Simpson	T. Mancos	T. McCracken
T. Glorieta		T. McKee	T. Gallup	T. Ignacio Otzie
T. Paddock		T. Ellenburger	Base Greenhorn	T. Granite
T. Blincoy		T. Gr. Wash	T. Dakota	
T. Tubb		T. Delaware Sand	T. Morrison	
T. Drinkard		T. Bone Springs 7850	T. Todilto	
T. Abo		T. B Canyon	T. Entrada	
T. Wolfcamp		T. C Canyon	T. Wingate	
T. Penn		T. By Canyon	T. Chinle	
T. Cisco (Bough C)		T.	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....

No. 3, from.....to.....

No. 2, from.....to.....

No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....

No. 2, from.....to.....feet.....

No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-39344	Pool Code 96403 1	Pool Name Wildcat; Bone Spring
Property Code 38760	Property Name PLU BIG SINKS 2 25 30 STATE	Well Number 1H
OGRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3353'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	2	25 S	30 E		350	SOUTH	1980	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B-2	2	25 S	30 E		100	NORTH	1980	EAST	EDDY
Dedicated Acres 160.50	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div>RECEIVED AUG 22 2011 NMOCD ARTESIA</div>	<p>PROPOSED BOTTOM HOLE LOCATION</p> <p>Lot - N 32.16685029° Long - W 103.8493046° NMSPCE- N 424771.947 E 691109.069 (NAD-83)</p>	<p>Project Area</p> <p>Producing Area</p> <p>4897.3'</p> <p>1980'</p> <p>100'</p> <p>BH</p> <p>350'</p> <p>SL</p> <p>1980'</p>	<p>OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Bryan Arrant</i> 08/18/2011 Signature Date Bryan Arrant Printed Name bryan.arrant@chk.com Email Address</p>
	<p>Penetration Point & SURFACE LOCATION</p> <p>Lot - N 32.15340489° Long - W 103.8494179° NMSPCE- N 419880.580 E 691095.992 (NAD-83)</p>		<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p><i>GARY L. JONES</i> Date Surveyed Signature & Seal of Professional Surveyor W.S. 25149</p> <p>Certificate No. Gary L. Jones 7977 BASIN SURVEYS 25149</p>



Drilling Engineer: Chris Gray

Superintendent: Rolando Davila

Geologist: Chris Persellin

Well Name: PLU Big Sinks 2-25-30 State 1H
Target: First Bone Spring Shale
County, State: Eddy, NM

Surface Location: 350' FSL 1980' FEL, Section 2, Township 25S, Range 30 E

BH Location: 100' FNL 1980' FEL, Section 2, Township 25S, Range 30 E

SHL Latitude: 32.153405 SHL North: 419881
SHL Longitude: -103.849418 SHL East: 691096
BHL Latitude: 32.16685029 BHL North: 424772
BHL Longitude: -103.8493046 BHL East: 691109
Coordinates: NAD 83 Coordinates: NMSPCE

Drilling Rig: Patterson 62
Directional-Surface: Ryan
Directional-Curve: Ryan

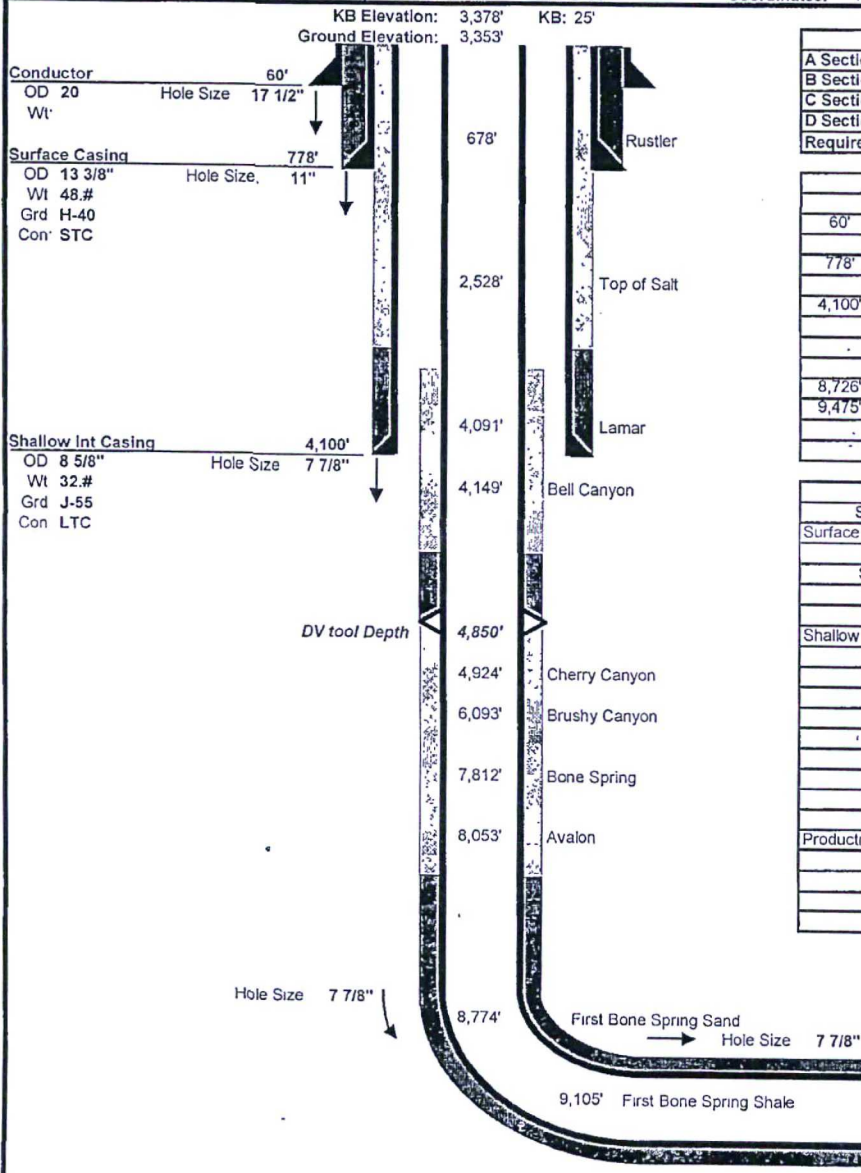
Drilling Mud: Nova

Cement: Schlumberger

Wellhead: Sunbelt

Property Number: 641196

AFE Number: 157879



Wellhead Equipment	
A Section	13-3/8" x 13-5/8" 5K SOW
B Section	13-5/8" 5K X 11" 5K
C Section	11" 5K X 7-1/16" 10K
D Section	N/A
Required BOP Stack	13-5/8" 5K- Double, Annular, Rot Head, W/Orbit Vah

Mud					
Depth	Type	Weight	F. Vis	FL	
60' - 778'	Spud Mud	8.4 - 8.7	32 - 34	NC - NC	
778' - 4,100'	Brine	9.8 - 10.1	28 - 29	NC - NC	
4,100' - 8,726'	Cut Brine	8.4 - 9	28 - 30	NC - NC	
8,726' - 9,475'	Cut Brine	8.4 - 9	28 - 30	NC - NC	
9,475' - 14,197'	Cut Brine	8.4 - 9	28 - 30	NC - NC	

Cement							
Slurry	Top	Btm	Wt	Yld	%Exc	Bbl	Sx
Surface							
Single Slurry	25'	778'	13.5	1.73	150	237	768
Shallow Int							
Lead	25'	3,600'	12.0	1.8	150	383	1196
Tail	3,600'	4,100'	14.2	1.37	150	59	243
Production							
1st Lead	4,850'	8,700'	12.4	2.09	75	208	559
1st Tail	8,700'	14,197'	14.5	1.24	75	299	1353
2nd Lead	3,600'	4,600'	12.4	2.19	200	62	159
2nd Tail	4,600'	4,850'	14.8	1.33	200	23	98

Type	Logs	Interval	Vendor
Mudlog	2 man unit	Int Csg to EOC	Suttles
OH	Triple Combo (Dual Induction)	Curve to Int Csg	TBD
LWD	MWD/Gamma	Curve/Lateral	Ryan

Directional Plan					
Target Line:	9202' TVD w/89.8 deg inclination				
Target Window:	10' above and 10' below				
	MD	INC	AZM	TVD	VS
KOP	8,726'	0.00	0.00	8,726'	0'
EOB	9,475'	89.80	0.15	9,204'	476'
TD	13,890'	89.80	0.15	9,219'	4,891'
Hardlines:	Lateral- Actual lease lines Vertical- Actual Lease Lines				
Notes:	Please note SHL and BHL distance from lease lines				



Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

October 21, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV RR #004H
Commercial Well Determinations
Lower Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV RR #004H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV RR #004H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
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SANTA FE, NEW MEXICO 87504-1148

RECEIVED CCD
OCT 29 2015
P 3:03
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Fax (505) 827-5766
www.nmstatelands.org

October 21, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV BS #008H
Commercial Well Determinations
1st Bone Spring Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV BS #008H is not capable of producing unitized substances in paying quantities from the 1st Bone Spring formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV BS #008H is a non-commercial 1st Bone Spring formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
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Aubrey Dunn
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www.nmstatelands.org

October 21, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV BS #009H
Commercial Well Determinations
Upper Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV BS #009H is not capable of producing unitized substances in paying quantities from the Upper Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV BS #009H is a non-commercial Upper Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Aubrey Dunn", is written over the typed name and title.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk

cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
COMMISSIONER

State of New Mexico
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Fax (505) 827-5766
www.nmstatelands.org

October 21, 2015

BOPCO, LP
201 Main St., Suite 2900
Fort Worth, TX 73102-3131

Attention: Mr. R. Travis Mears

Re: PLU CVX JV PC #009H
Commercial Well Determinations
Lower Avalon Shale Formation
Eddy County, New Mexico

Dear Mr. Mears:

We are in receipt of your letter of July 17, 2015 together with the non-commercial determination data for the above referenced well.

The Bureau of Land Management advised this office that they concur with your determination that the PLU CVX JV PC #009H is not capable of producing unitized substances in paying quantities from the Lower Avalon Shale formation and is to be produced on a lease basis.

Please be advised that the Commissioner of Public Lands concurs with yours and the Bureau of Land Management's determinations that the PLU CVX JV PC #009H is a non-commercial Lower Avalon Shale formation well and should be produced on a lease or communitization basis.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,


AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attn: Mr. Daniel Sanchez
TRD-Santa Fe, Attn: Ms. Judy Vigil
BLM Carlsbad – Attn: Mr. Ed Fernandez



Aubrey Dunn
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Fax (505) 827-5766
www.nmstatelands.org

October 20, 2015

BOPCO, L.P.
201 Main Street, Suite 2900
Fort Worth, Texas 76102-3131

Attention: Mr. Andy Morrison

Re: PLU CVX JV BS #007H (PLU Big Sinks 2-25-30 ST #1H)
API (30-015-39344)
Commercial Well Determinations
Bone Spring Formation
Eddy County, New Mexico

Dear Mr. Morrison:

We are in receipt of your letter of July 17, 2015 together with the commercial determination data for the PLU CVX JV BS #007H (PLU Big Sinks 2-25-30 ST #1H) located in Section 02-25S-30E.

The Bureau of Land Management, advised this office that the PLU Big Sinks 2-25-30 ST#H was determined to be capable of producing in paying quantities from the Bone Spring formation

Please be advised that the Commissioner of Public Lands concurs with the Bureau of Land Management's determinations that the PLU Big Sinks 2-25-30 ST #1H a commercial well in the Bone Spring formation and is entitled to participate in the Bone Spring Participating Area

Please submit an application for the appropriate expansion of the Bone Spring Participating Area to this office for approval.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

A handwritten signature in black ink, appearing to read "Aubrey Dunn", is written over the typed name and title.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

AD/sk
cc: Reader File,
OCD-Attention: Mr. Daniel Sanchez
BLM Carlsbad, Attention: Mr. Ed Fernandez
TRD-Santa Fe, Attention: Ms. Judy Vigil