

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

June 31, 2016

RECEIVED OGD

2016 JUL -5 P 2:49

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 #005H (32-25-30)
Poker Lake Unit (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 producer 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 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: _____

ECONOMIC PROJECTION

Date: 6/29/2016

Lior: 1004505

9:59:10AM

Project Name: 7-1-2015 NSAI Review For BOPCO, LP

As Of Date: 01/01/2011

Lease Name: 1004505/PLU CVX JV RR/005H/1ST

Partner: All cases

Discount Rate (%): 5.00

Reserv Cat: Proved Producing

Case Type: LEASE CASE

1004505/PLU CVX JV RR/005H/1ST

Field: CORRAL CANYON, BONE SPRING, SO

Archive Set: BOPCO 1/2016

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 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	0.755	2.711	1.640	8.811	0.691	1.501	8.062
2012	38.661	276.987	167.577	782.584	35.375	153.333	716.065
2013	23.393	292.094	176.717	949.306	21.405	161.696	868.615
2014	11.457	139.436	84.359	453.167	10.483	77.188	414.648
2015	11.163	157.358	95.202	511.413	10.214	87.109	467.943
2016	7.012	95.169	57.577	309.300	6.416	52.683	283.009
2017	7.688	103.738	62.762	337.149	7.035	57.427	308.492
2018	6.618	89.978	54.437	292.428	6.055	49.809	267.571
2019	5.829	79.688	48.211	258.986	5.333	44.113	236.972
2020	5.234	71.865	43.478	233.560	4.790	39.782	213.707

Rem	68.798	954.452	577.443	3,101.968	62.951	528.361	2,838.300
Total	186.609	2,263.475	1,369.402	7,238.671	170.747	1,253.003	6,623.384
Ult	186.609	2,263.475					

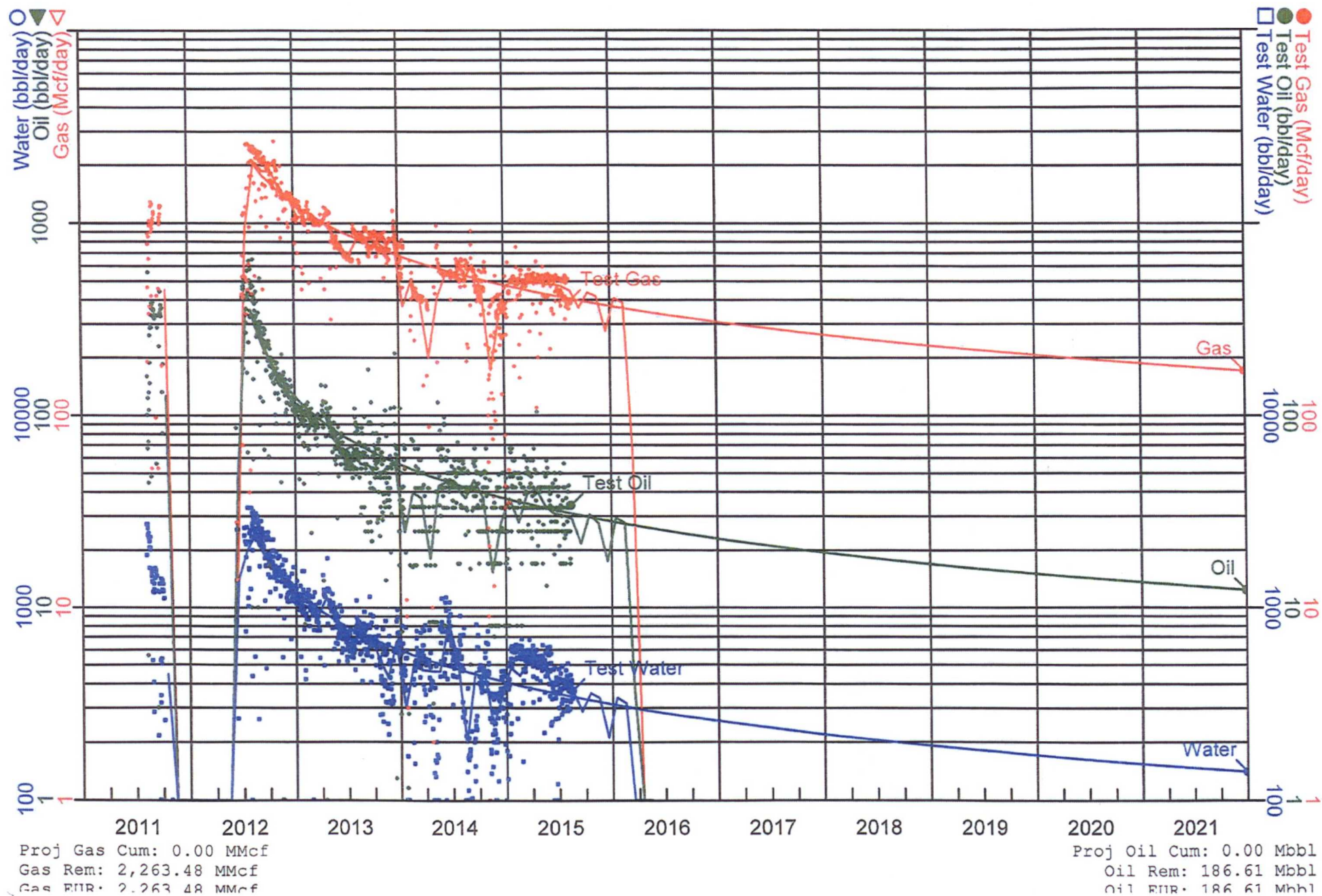
Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2011	78.91	3.19	0.75	54.51	4.79	6.05	65.35
2012	83.09	2.62	0.75	2,939.35	401.09	537.05	3,877.49
2013	89.26	3.08	0.75	1,910.49	498.35	651.46	3,060.29
2014	85.83	3.59	0.81	899.75	277.40	336.65	1,513.80
2015	45.31	2.25	0.41	462.85	195.96	190.89	849.70
2016	41.51	2.17	0.43	266.32	114.14	121.87	502.33
2017	47.67	2.63	0.49	335.36	151.11	149.68	636.15
2018	48.32	2.58	0.49	292.59	128.57	131.72	552.88
2019	49.08	2.57	0.50	261.76	113.22	117.34	492.31
2020	49.94	2.62	0.50	239.17	104.42	106.26	449.86
Rem	52.70	3.52	0.51	3,317.34	1,861.40	1,435.19	6,613.94
Total	64.30	3.07	0.57	10,979.49	3,850.44	3,784.17	18,614.10

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	4.25	0.20	5,979.00	593.15	-6,511.24	-6,511.24	-6,369.40	-6,369.40
2012	240.25	11.63	0.00	2,532.95	1,092.66	-5,418.59	984.12	-5,385.29
2013	175.02	9.18	0.00	2,204.36	671.73	-4,746.85	599.04	-4,786.24
2014	85.82	4.54	0.00	1,412.55	10.88	-4,735.97	10.38	-4,775.86
2015	48.38	2.55	0.00	682.31	116.47	-4,619.50	94.62	-4,681.24
2016	27.94	1.51	250.00	598.76	-375.89	-4,995.39	-286.87	-4,968.11
2017	35.77	1.91	0.00	608.24	-9.77	-5,005.16	-6.93	-4,975.04
2018	30.95	1.66	0.00	592.92	-72.64	-5,077.80	-50.25	-5,025.29
2019	27.55	1.48	0.00	299.94	163.35	-4,914.46	107.63	-4,917.66
2020	25.25	1.35	0.00	265.74	157.52	-4,756.93	99.18	-4,818.48
Rem	382.99	19.84	0.00	8,557.65	-2,346.55	-2,346.55	-130.55	-130.55
Total	1,084.17	55.84	6,229.00	18,348.58	-7,103.49	-7,103.49	-4,949.03	-4,949.03

Major Phase:	Gas	Working Int:	1.00000000	Present Worth Profile (M\$)	
Perfs:	0	Revenue Int:	0.91500000		
Initial Rate:	65.226.00 Mcf/month	Disc. Initial Invest. (m\$):	6,048.835	5.00%:	-4,949.03
Abandonment:	449.68 Mcf/month	Internal ROR (%):	>1000.0	9.00%:	-4,757.00
Initial Decline:	80.00 % year b = 1.200	ROI Investment (disc/undisc):	0.18 / 0.00	10.00%:	-4,750.70
Beq Ratio:	0.16 bbl/Mcf	Years to Payout:	0.00	12.00%:	-4,753.77
End Ratio:	0.07 bbl/Mcf	Abandonment Date:	12/31/2060	15.00%:	-4,772.21
Forecast Start:	08/01/2012			20.00%:	-4,799.66
		Initial	1st Rev.	30.00%:	-4,808.45
		Working Interest:	0.00000000	40.00%:	-4,778.41
		Revenue Interest:	0.91500000	50.00%:	-4,730.52
		Rev. Date:		60.00%:	-4,674.14

1004505/FLD CVA JV KR/003H/1S1
Oper: BOPCO
Major Phase: Gas

Field: CORRAL CANYON; BONE SPRING, SOUTH
EDDY, NM
ECL Date: 12/31/2060



WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL PLU CVX JV ROSS RANCH #005H (RR 32) FORMATION BONE SPRING
 LOCATION UNIT 175 FEET FROM SOUTH LINE & 440 FEET FROM EAST LINE
 SECTION 32 TOWNSHIP 25S RANGE 30E COUNTY Eddy NEW MEXICO
 SPUD DATE 12/29/2012 COMPLETION DATE 4/3/2013 INITIAL PRODUCTION 4/8/2013
 PERFORATIONS 9000-13558
 BHL: 350' FNL & 405' FEL SEC 32 T25S R30E

STIMULATION:

ACID _____

 FRACTURE See Attached

POTENTIAL (9/5/2011): 357 BOPD, 1090 MCFPD, 1547 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 (S _w), %	<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 = $((7758 \text{ rb/ac-ft}) (\text{por}) (1-S_w) / (\text{Boi rbo/stb})(RF)(A) (h)) / 1000 \text{ bo/Mbo}$ Boi = 2.15 rb/stb

Continued

PERFORMANCE DATA

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

CUMULATIVE PRODUCTION TO	5/31/2015	87,826	BBL Oil	900,869	MCF Gas
INITIAL RATE (qi)		355	BOPD		
ECONOMIC LIMIT (qi)		1			
HYPERBOLIC DECLINE RATE, dy		n = 1.2, d = 99%/yr			
REMAINING MBO (Q) =		99			
ULTIMATE RECOVERABLE MBO		187			

(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,391,600 (to the depth of formation completed)

COMPLETION COST \$3,587,400

GROSS TOTAL COST \$5,979,000

YEAR	GROSS OIL MBO	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	0.755	65.4	597.6	-6369.4
2	38.661	3877.5	2784.8	984.1
3	23.393	3060.3	2388.6	599.0
4	11.457	1513.8	1502.9	10.4
5	11.163	849.7	733.2	94.6
6	7.012	502.3	628.2	-286.9
7	7.688	636.2	645.9	-6.9
8	6.618	552.9	625.5	-50.3
9	5.829	492.3	329.0	107.6
10	5.234	449.9	282.3	99.2
REMAINDER	68.798	6613.9	8960.5	-130.6
TOTAL	186.608	18614.1	19488.6	-4949.0

WELL IS NOT COMMERCIAL

Submit To Appropriate District Office Two Copies 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 Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 July 17, 2008								
		1. WELL API NO. 30-015-37938								
		2. Type of Lease ☒ STATE ☐ FEE ☐ FED/INDIAN								
		3. State Oil & Gas Lease No.								
WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ 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 ROSS RANCH 32 STATE								
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER		RECEIVED OCT 11 2011 NMOCD ARTESIA								
8. Name of Operator Chesapeake Operating, Inc.										
10. Address of Operator P.O. Box 18496 Oklahoma City, OK 73154-0496		9. OGRID 147179 11. Pool name or Wildcat CORRAL CANYON; BONE SPING, SOUTH								
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	P	32	25S	30E		175'	S	400'	E	Eddy
BH:	A	32	25S	30E		350'	N	405'	E	Eddy
13. Date Spudded 04/14/2011	14. Date T.D. Reached 05/28/2011		15. Date Rig Released 07/11/2011		16. Date Completed (Ready to Produce) 08/01/2011			17. Elevations (DF and RKB, RT, GR, etc.) 3172' GR		
18. Total Measured Depth of Well 13558'			19. Plug Back Measured Depth 13558'			20. Was Directional Survey Made? Yes		21. Type Electric and Other Logs Run ARRAY COMP TRUE RES..		
22. Producing Interval(s), of this completion - Top, Bottom, Name 9000'-13537' (OA) BONE SPRING										
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# H-40		1075'		17 1/2"		386 C			
8 5/8"	32# J-55		3660'		11"		1250			
5 1/2"	20# L-80		13,558'		5-1/2" 7 7/8"		1700 H			
24. LINER RECORD										
SIZE	TOP	BOTTOM	SACKS CEMENT	25. TUBING RECORD						
				SIZE	DEPTH SET		PACKER SET			
					2 7/8"		8014		7991'	
26. Perforation record (interval, size, and number) 9000'-13558' (OA) 480 holes, 4 spf										
27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED 9000'-13537' 29,069,004 lbs Sand; 4,473,756 gals Fresh Water 60,000 gals Ne Fe 15% HCL										
28. PRODUCTION										
Date First Production 08/10/2011		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing					Well Status (Prod. or Shut-in) Prod.			
Date of Test 09/05/2011	Hours Tested 24 Hours	Choke Size 32/64	Prod'n For Test Period	Oil - Bbl 357	Gas - MCF 1090	Water - Bbl. 1547	Gas - Oil Ratio			
Flow Tubing Press. 740	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl. 357	Gas - MCF 1547	Water - Bbl. 1090	Oil Gravity - API - (Corr.)				
29. Disposition of Gas (Solid, used for fuel, vented, etc.) Sold							30. Test Witnessed By			
31. List Attachments NMOCD's C-102, C-103, C-104, E-Log, Conf. Letter										
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 Bryan Arrant			Title Sr. Reg. Compl. Sp.			Date 10/06/2011	
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 971'	T. Canyon	T. Ojo Alamo	T. Penn. A"
T. Salt 1330'	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt 3638'	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 7473	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

DISTRICT I
1620 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 87503

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised October 16, 2009

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-37938	Pool Code 13354	Pool Name Corral Canyon, Bone Spring, South
Property Code 38213	Property Name PLU ROSS RANCH "32" STATE	Well Number 1H
QDR No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3172'

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	32	25 S	30 E		175	SOUTH	400	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	32	25 S	30 E		350	NORTH	405	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

RECEIVED OCT 11 2011 NMCCD ARTESIA	ACTUAL BOTTOM HOLE LOCATION 350' ENL & 405' FEL Lat - N 32.09276623° Long - W 103.8950747° NAD83 E 876748.761 (NAD-83)	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 information either owns a working interest or undivided 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: 9/01/2011 Printed Name: Bryan Arrant
	SURFACE LOCATION Lat - N 32.07957779° Long - W 103.8961781° NAD83 E 876735.783 (NAD-83)	

AS DRILLED LAND PLAT



Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

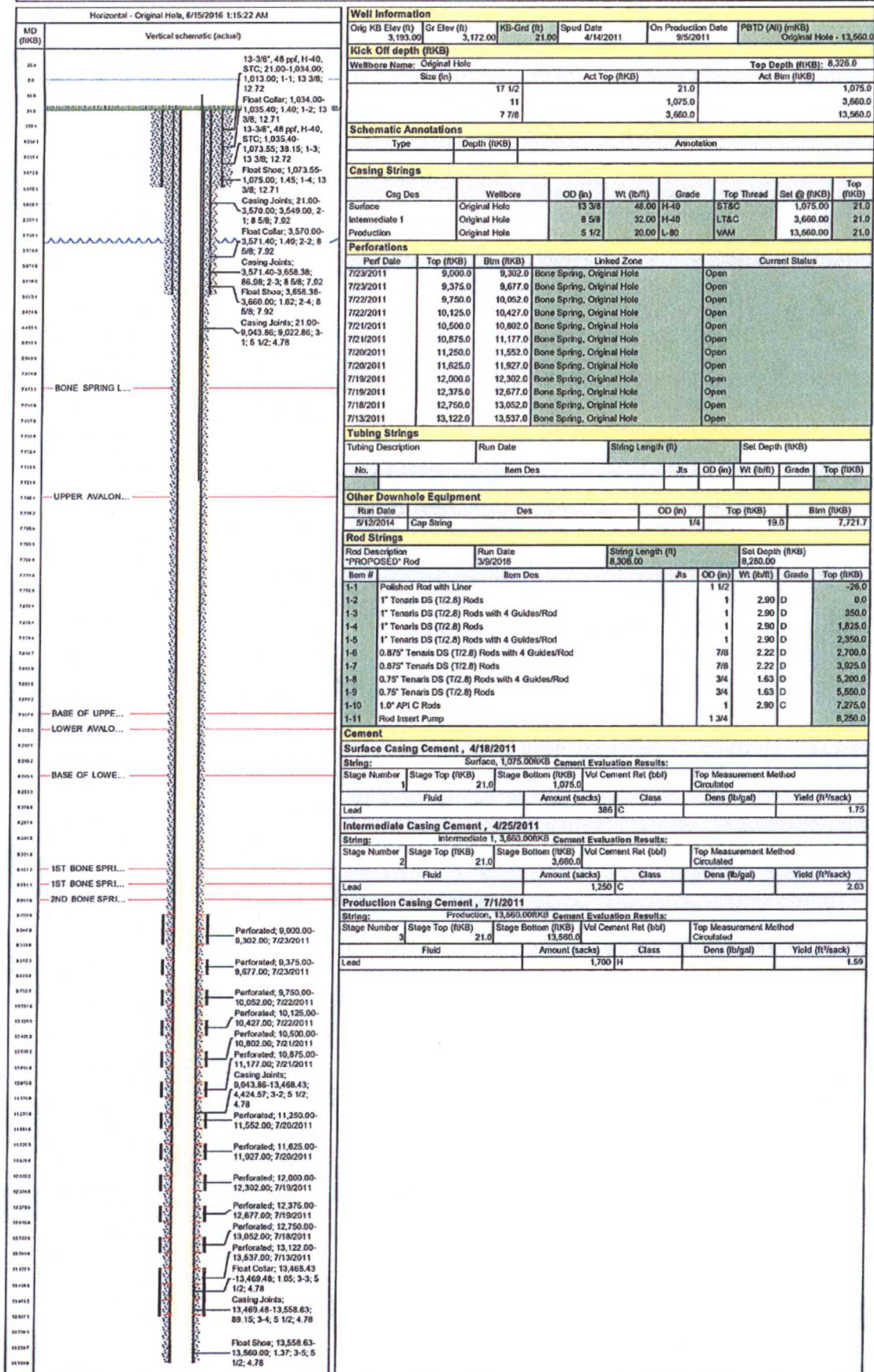
Well Name: POKER LAKE UNIT CVX JV RR #005H (32)

Well ID: 30-015-37938

Field:

Sect: 32 Town: 25S Rng: 30E County: Eddy State: New Mexico

Surface Location:





Schematic - Vertical Production

BOPCO, L.P. - West Texas

Well Name: POKER LAKE UNIT CVX JV RR #005H (32)

Well ID: 30-015-37938

Field:

Sect: 32 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
Workover/Maintenance	Sub Pump	ESP Repair	5/4/2016	5/6/2016

