

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

March 30, 2011

RECEIVED OCD

2011 MAR 31 A 11:38

FEDERAL EXPRESS

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

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

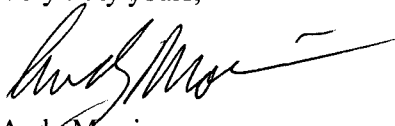
Re: Commercial Determination
PLU Phantom Banks 1 Federal 1H
Bone Spring Formation
Eddy County, New Mexico

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 Formation. Please indicate your concurrence to the above Commercial Determination. Upon your execution hereof, Bass will submit a participating area for the well.

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,



Andy Morrison

Bureau of Land Management

New Mexico State Land Office

New Mexico Oil Conservation Division

By: _____

By: _____

By: _____

Its: _____

Its: _____

Its: _____

Date: _____

Date: _____

Date: _____

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL	PLU Phantom Banks 1 Federal 1H	FORMATION	Bone Spring
LOCATION	O UNIT, 400 FEET FROM South LINE & 1980 FEET FROM East LINE		
SECTION	1 TOWNSHIP 26S RANGE 30E, COUNTY EDDY, NEW MEXICO		
SPUD DATE	3/19/2010	COMPLETION DATE	09/02/2010
		INITIAL PRODUCTION	09/06/2010
PERFORATIONS	8,600'-12,850'		
	BHL: 405' FNL & 1984' FEL Sec 1 T26S R30E		

STIMULATION:

ACID _____

FRACTURE Frac with 62,120 gals 15% HCL, 107,000 BBLS, 4,666,000 LBS sand

POTENTIAL 9/6/2010: 421 BOPD, 521 MCFPD, 2,534 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 (por), %	7%		
Water saturation (Sw), %	40%		
Net Thickness (h), ft.	67		
Temperature (T), Fahrenheit	120		
Bottom Hole pressure (P), psia	3,698		
Recovery factor (RF), %	60%		
Recoverable gas, BCF *(See eq. below)	3.4		

*Sometimes unable to match performance due to volumetric uncertainty.

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

Bgi = 0.61 RB/MCF

PERFORMANCE DATA

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

CUMULATIVE PRODUCTION TO	<u>12/01/2010</u>	<u>215,986</u>	MCF Gas	<u>26,339</u>	BBL Oil
INITIAL RATE (qi)	<u>1683 MCFPD</u>				
ECONOMIC LIMIT (qi)	<u>44</u>				
HYPERBOLIC DECLINE RATE, dy	<u>n=1.5 d= 59%/yr</u>				
REMAINING GAS (Q) =	<u>2,297,514</u>				
ULTIMATE RECOVERABLE GAS (mcf)	<u>2,513,500</u>				

(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$ \$3,025,000 (to the depth of formation completed)

COMPLETION COST \$ 3,025,000

GROSS TOTAL COST \$ \$6,050,000

YEAR	GROSS GAS MMCF	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	<u>263.1</u>	<u>2,785.1</u>	<u>301.7</u>	<u>-3,583.2</u>
2	<u>339.3</u>	<u>3,035.3</u>	<u>438.6</u>	<u>2,502.7</u>
3	<u>200.4</u>	<u>1,802.8</u>	<u>328.9</u>	<u>1,350.2</u>
4	<u>150.9</u>	<u>1,378.5</u>	<u>291</u>	<u>948.0</u>
5	<u>123.9</u>	<u>1,147.6</u>	<u>270.3</u>	<u>728.4</u>
6	<u>106.5</u>	<u>1,001.8</u>	<u>257.3</u>	<u>588.6</u>
7	<u>94.1</u>	<u>899.0</u>	<u>248.1</u>	<u>490.0</u>
8	<u>84.8</u>	<u>817.4</u>	<u>240.8</u>	<u>413.4</u>
9	<u>77.5</u>	<u>755.6</u>	<u>235.3</u>	<u>355.2</u>
10	<u>71.6</u>	<u>703.7</u>	<u>230.6</u>	<u>307.6</u>
REMAINDER	<u>1,001</u>	<u>10,866.3</u>	<u>5713.3</u>	<u>2,237.1</u>
TOTAL	2,513	25,192.9	8555.8	6,337.9

WELL IS COMMERCIAL

Lease: PLU PHANTOM BANKS 1 FED 1
 Field: POKER LAKE
 Operator: CHESAPEAKE OPERATING I
 County: EDDY State: NM
 Oil Differential: -3.41 \$/BBL
 Rsv_Cat: 1PDP Loc: 1-26S-30E

DATE : 01/28/2011
 TIME : 10:11:11
 DBS : CRK0101
 SETTINGS : GGA0910
 QUALIFIER: CEC1210

RESERVES AND ECONOMICS

AS OF DATE: 09/2010

--END-- MO-YEAR	GROSS OIL PRODUCTION ---MBBLS---	GROSS GAS PRODUCTION ---MMCF---	NET OIL PRODUCTION ---MBBLS---	NET GAS PRODUCTION ---MMCF---	NET NGL PROD ---MBBLS---	NET EQUIV PRODUCTION ---MMCFE---	PRICES OIL ---\$/BBL---	PRICES GAS ---\$/MCF---	PRICES NGL ---\$/BBL---	NET OIL SALES ---M\$---	NET GAS SALES ---M\$---	NET NGL SALES ---M\$---
12-2010	30.49	263.05	26.68	105.88	17.26	369.51	66.890	3.767	34.86	1784.35	398.88	601.79
12-2011	26.31	339.33	23.02	136.58	22.27	408.32	69.650	4.800	34.86	1603.41	655.58	776.28
12-2012	13.89	200.41	12.16	80.67	13.15	232.52	76.000	5.211	34.86	923.91	420.36	458.48
12-2013	9.97	150.93	8.73	60.75	9.91	172.53	82.330	5.182	34.86	718.36	314.84	345.29
12-2014	7.94	123.92	6.94	49.88	8.13	140.33	87.500	5.144	34.86	607.55	256.58	283.49
12-2015	6.66	106.48	5.83	42.86	6.99	119.76	91.110	5.297	34.86	531.13	227.03	243.60
12-2016	5.78	94.13	5.06	37.89	6.18	105.30	94.820	5.393	34.86	479.68	203.95	215.33
12-2017	5.13	84.83	4.49	34.15	5.57	94.49	97.820	5.393	34.86	439.20	184.14	194.07
12-2018	4.63	77.54	4.05	31.21	5.09	86.04	100.820	5.491	34.86	408.36	169.80	177.39
12-2019	4.23	71.64	3.70	28.83	4.70	79.24	103.060	5.498	34.86	381.26	158.53	163.86
12-2020	3.90	66.74	3.41	26.86	4.38	73.62	104.870	5.613	34.86	357.80	150.78	152.69
12-2021	3.62	62.61	3.17	25.20	4.11	68.88	106.110	5.699	34.86	336.51	143.61	143.23
12-2022	3.39	59.06	2.97	23.77	3.88	64.83	107.510	5.852	34.86	318.96	139.11	135.11
12-2023	3.19	55.97	2.79	22.53	3.67	61.31	108.910	5.880	34.86	303.92	132.48	128.05
12-2024	3.01	53.17	2.64	21.40	3.49	58.16	110.220	5.842	34.86	290.63	125.03	121.63
12-2025	2.86	50.51	2.50	20.33	3.31	55.23	111.680	5.909	34.86	279.32	120.14	115.55
12-2026	2.72	47.99	2.38	19.31	3.15	52.46	113.200	6.043	34.86	268.96	116.71	109.77
S TOT	137.72	1908.32	120.50	768.10	125.23	2242.53	83.261	5.100	34.86	10033.30	3917.85	4365.64
AFTER	34.25	605.18	29.96	243.58	39.71	661.66	125.234	7.140	34.86	3752.62	1739.29	1854.46
TOTAL	171.97	2513.50	150.47	1011.68	164.95	2904.19	91.619	5.592	34.86	13785.92	5656.84	5780.10

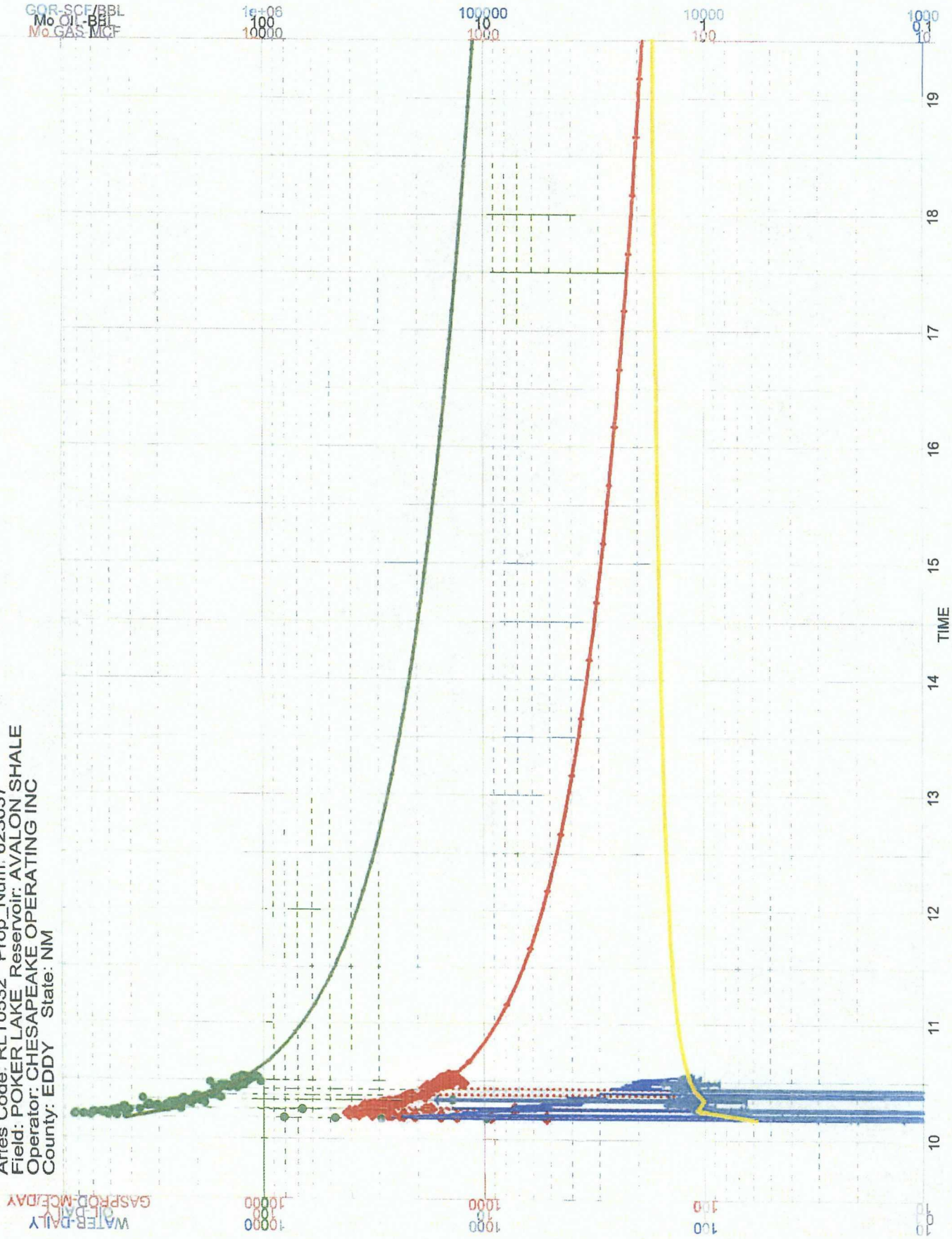
--END-- MO-YEAR	NO.OF WELLS	AD VALOREM TAX ---M\$---	PRODUCTION TAX ---M\$---	OTHER OPER EXPENSES ---M\$---	DIRECT EXPENSES ---M\$---	OVERHEAD EXPENSES ---M\$---	TOTAL OPER EXPENSES ---M\$---	EQUITY INVESTMENT ---M\$---	FUTURE NET CASHFLOW ---M\$---	CUMULATIVE CASHFLOW ---M\$---	CUM. DISC. CASHFLOW ---M\$---
12-2010	1.	5.09	240.58	0.00	56.00	0.00	56.00	6050.00	-3566.65	-3566.65	-3583.15
12-2011	1.	5.54	265.03	0.00	168.00	0.00	168.00	0.00	2596.70	-960.95	-1080.46
12-2012	1.	3.29	157.64	0.00	168.00	0.00	168.00	0.00	1473.82	503.86	269.69
12-2013	1.	2.52	120.45	0.00	168.00	0.00	168.00	0.00	1087.53	1591.39	1217.99
12-2014	1.	2.09	100.19	0.00	168.00	0.00	168.00	0.00	877.33	2468.72	1944.38
12-2015	1.	1.83	87.45	0.00	168.00	0.00	168.00	0.00	744.48	3213.20	2534.94
12-2016	1.	1.64	78.45	0.00	168.00	0.00	168.00	0.00	650.87	3864.07	3024.95
12-2017	1.	1.49	71.31	0.00	168.00	0.00	168.00	0.00	576.60	4440.67	3438.34
12-2018	1.	1.38	65.89	0.00	168.00	0.00	168.00	0.00	520.27	4960.95	3793.86
12-2019	1.	1.28	61.36	0.00	168.00	0.00	168.00	0.00	473.03	5433.97	4101.14
12-2020	1.	1.21	57.67	0.00	168.00	0.00	168.00	0.00	434.39	5868.37	4370.13
12-2021	1.	1.14	54.37	0.00	168.00	0.00	168.00	0.00	399.84	6268.21	4605.93
12-2022	1.	1.08	51.75	0.00	168.00	0.00	168.00	0.00	372.36	6640.57	4815.06
12-2023	1.	1.03	49.24	0.00	168.00	0.00	168.00	0.00	346.18	6986.75	5000.23
12-2024	1.	0.98	46.86	0.00	168.00	0.00	168.00	0.00	321.45	7308.20	5163.98
12-2025	1.	0.94	44.91	0.00	168.00	0.00	168.00	0.00	301.16	7609.36	5310.08
12-2026	1.	0.90	43.20	0.00	168.00	0.00	168.00	0.00	283.34	7892.70	5441.00
S TOT	1.	33.44	1596.35	0.00	2744.00	0.00	2744.00	6050.00	7892.70	7892.70	5441.00
AFTER	1.	12.55	599.42	0.00	3570.00	0.00	3570.00	16.00	2678.39	10571.09	6337.92
TOTAL	1.	45.99	2195.76	0.00	6314.00	0.00	6314.00	6066.00	10571.09	10571.09	6337.92

OIL@9/1/2010		GAS@9/1/2010		P.W. %		P.W., M\$	
GROSS WELLS	1.0	0.0	LIFE, YRS.	37.58	0.00	10571.091	
GROSS UTL., MB & MMF	171.965	2513.496	DISCOUNT %	5.00	5.00	6337.921	
GROSS CUM., MB & MMF	0.000	0.000	UNDISCOUNTED PAYOUT, YRS.	1.99	8.00	4902.526	
GROSS RES., MB & MMF	171.965	2513.496	DISCOUNTED PAYOUT, YRS.	2.13	10.00	4186.271	
NET RES., MB & MMF	150.469	1011.683	UNDISCOUNTED NET/INVEST.	2.74	12.00	3601.078	
NET REVENUE, M\$	13785.915	5656.836	DISCOUNTED NET/INVEST.	2.05	14.00	3113.410	
INITIAL PRICE, \$	66.890	3.767	RATE-OF-RETURN, PCT.	44.67	16.00	2700.029	
INITIAL NGL, PCT.	87.500	87.500	INITIAL W-I., PCT.	100.000	20.00	2034.679	
NET EQUIV RES., MMCFE		2904.189	REVERSION, YRS.	0.00	25.00	1407.765	
					30.00	927.214	
PLANT GROSS PROD (MU)	188.512				40.00	229.315	
PLANT NET PROD (MU)	164.948				50.00	-261.238	
PLANT NET REVENUES (M\$)	5750.094				60.00	-630.005	
					80.00	-1155.932	
					100.00	-1519.482	

Aries_Code: RLT0532 Prop_Num: 623057

District: PERMIAN

Lease: PLU PHANTOM BANKS 1 FED 1H
 Aries Code: RLT0532 Prop_Num: 623057
 Field: POKER LAKE Reservoir: AVALON SHALE
 Operator: CHESAPEAKE OPERATING INC
 County: EDDY State: NM



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

FORM 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: AMENDED

2. Name of Operator
CHESAPEAKE AGENT FOR BOPCO Contact: Linda Good linda.good@chk.com

3. Address P.O. BOX 12496
OKLAHOMA CITY, OK 73154-0496

3a. BLM Area No. (include area code)
405-935-4275

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

At surface SWSE 400FSL 1930FEL

At top prod. interval reported below NWNE 405FNL 1984FEL

At total depth NWNE 405FNL 1984FEL

14. Date Spudded
03/19/2010

15. Date T.D. Reached
05/02/2010

16. Date Completed 09/02/2010
☐ D & A ☒ Ready to Prod

18. Total Depth MD 12888
TVD 9524

19. Plug Back T.D. MD 12888
TVD 9495

20. Depth Bridge Plug Set MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

ACRT, DLLT/MGRD, SDLT/DSNT/CSNG, WSST/OT/CT

22. 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. (H/L)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Palled
17.500	13.375 J-55	54.5		1160		1200		0	
12.250	9.625 J-55	40.0		4011		2100		0	
8.750	5.500 L-80	20.0		12888	4503	1680		3200	

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	7894							

25. Production Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	8600	1285	8600 TO 12850		600	OPEN
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
8600 TO 12850	FRAC W/62, 1209 GAL. 15% HCL, 107,000 BBL, 4,688,000# 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	Production Method
9/02/10	9/06/10	24	→	421.0	521.0	2534.0	46.9		FLOWS FROM WELL
Choke Size	Fbg. Press. PSI	Csg. Press. PSI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
50/64	440		→	421.0	521.0	2534.0		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	Fbg. Press. PSI	Csg. Press. PSI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

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

Operator

DEC 21

J. Jones

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. Plvg. 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. Plvg. 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
BASE OF SALT BELL CANYON	3853 3880		SANDSTONE W/SOME LS & MINOR SH SANDSTONE W/SOME LS & MINOR SH		
CHERRY CANYON MANZANITA MARKER	4827 4858		SANDSTONE W/SOME LS & MINOR SH SANDSTONE W/SOME LS & MINOR SH		
BRUSHY CANYON BONE SPRING	8159 7763	8758	SANDSTONE W/SOME LS & MINOR SH LIMESTONE AND SHALE		
FIRST BONE SPRING SAND	8758	9183	SANDSTONE W/SOME LS & SHALE		
SECOND BONE SPRING LIME	9183	9360	LIMESTONE AND SHALE		
SECOND BONE SPRING LIME	9360	9891	SANDSTONE W/SOME LIMESTONE & SHALE		
THIRD BONE SPRING LIME	9891	10643	SANDSTONE AND SHALE WITH SOME SANDSTONE		

32. Additional remarks (include plugging procedure):

CONFIDENTIAL

THIS IS AN AMENDED COMPLETE ION RPT ADDING PLUG BACK MD & TVD, AND CORRECTING THE BOTTOM PERF

(CHK PN 623057)

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) LINDA GOOD

Title SR. REGULATORY COMPLIANCE SPECIALIST

Signature

Date 12/13/2010

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
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 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-37030	Pool Code	Pool Name Wildcat; Bone Spring
Property Code 37644	Property Name PLU PHANTOM BANKS "1" FEDERAL	Well Number 1H
OGRID No. 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3222'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	1	26 S	30 E		400	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	1	26 S	30 E		405	NORTH	1984	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**

Bottom Hole Location (As Drilled) Project Area Producing Area SURFACE LOCATION Lat - N32°03'56.65" Long - W103°49'57.21" SPC- N: 388011.280 E: 696463.914 (NAD-83)	405' 1984'	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 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>Bryan Arrant</i> 9/23/2010 Signature Date Bryan Arrant 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. OCTOBER 18, 2008 Date Signature Professional Surveyor <i>Gary L. Jones</i> 7077 Certificate No. Gary L. Jones 7977 BASIN SURVEYS

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 & Natural Resources

Form C-104
Revised October 15, 2009

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

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Chesapeake Operating, Inc. P.O. Box 18496 Oklahoma City, OK 73154-0496		² OGRID Number 147179
⁴ API Number 30 - 015 - 37030		³ Reason for Filing Code/ Effective Date NW
⁵ Pool Name Wildcat; Bone Spring	⁶ Pool Code	
⁷ Property Code 37644	⁸ Property Name PLU Phantom Banks 1 Federal	⁹ Well Number 1H

II. ¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 1 dn	Feet from the	North/South	Feet from the	East/West line	County
O	1	26 South	30 East		400'	South	1980'	East	Eddy

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot 1 dn	Feet from the	North/South	Feet from the	East/West line	County
B	1	26 South	30 East		405'	North	1984'	East	Eddy
¹² Loe Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 09/06/2010	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

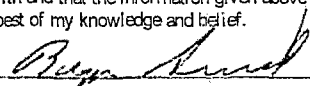
III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
241472	Enterprise Crude Oil, LLC 210 Park Ave., Suite 1600 Oklahoma City, OK	O
234435	Southern Union Gas Services, LTD 301 Commerce, Suite 700 Ft. Worth, TX	G

IV. Well Completion Data

²¹ Spud Date 03/19/2010	²² Ready Date 09/02/2010	²³ TD 12893'	²⁴ PBDT 12809'	²⁵ Perforations 8600'-12854'	²⁶ DHC, MC
²⁷ Hole Size 17 1/2"	²⁸ Casing & Tubing Size 13 3/8"	²⁹ Depth Set 1160'	³⁰ Sacks Cement 1200 sxs		
12 1/4"	9 5/8"	4011'	2100 sxs		
8 3/4"	5 1/2"	12886'	1680 sxs		
2 7/8" tubing set 7894'					

V. Well Test Data

³¹ Date New Oil 09/02/2010	³² Gas Delivery Date 09/06/2010	³³ Test Date 09/06/2010	³⁴ Test Length 24 Hours	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size 50/64	³⁸ Oil 421 BOPD	³⁹ Water 2534 BWPD	⁴⁰ Gas 521 MCFGPD	⁴¹ Test Method	
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 			OIL CONSERVATION DIVISION		
Printed name: Bryan Arrant			Approved by:		
Title: Senior Regulatory Compl. Sp.			Title:		
E-mail Address: bryan.arrant@chk.com			Approval Date:		
Date: 09/27/2010	Phone: (405)935-3782				



BLM PLU Schematic

PLU PHANTOM BANKS 1 FEDERAL 1H

CONFIDENTIAL

Field: Delaware Basin North
County: EDDY
State: NEW MEXICO
Location: SEC 1, 26S-30E, 400 FSL & 1980 FEL
Elevation: GL 3,222.0 KB 3,242.0
KB Height: 20.0

Spud Date: 3/19/2010
Initial Compl. Date:
API #: 3001537030
CHK Property #: 623057
1st Prod Date: 9/2/2010
PBDT: Original Hole - 12808.5
TD: 12,893.0

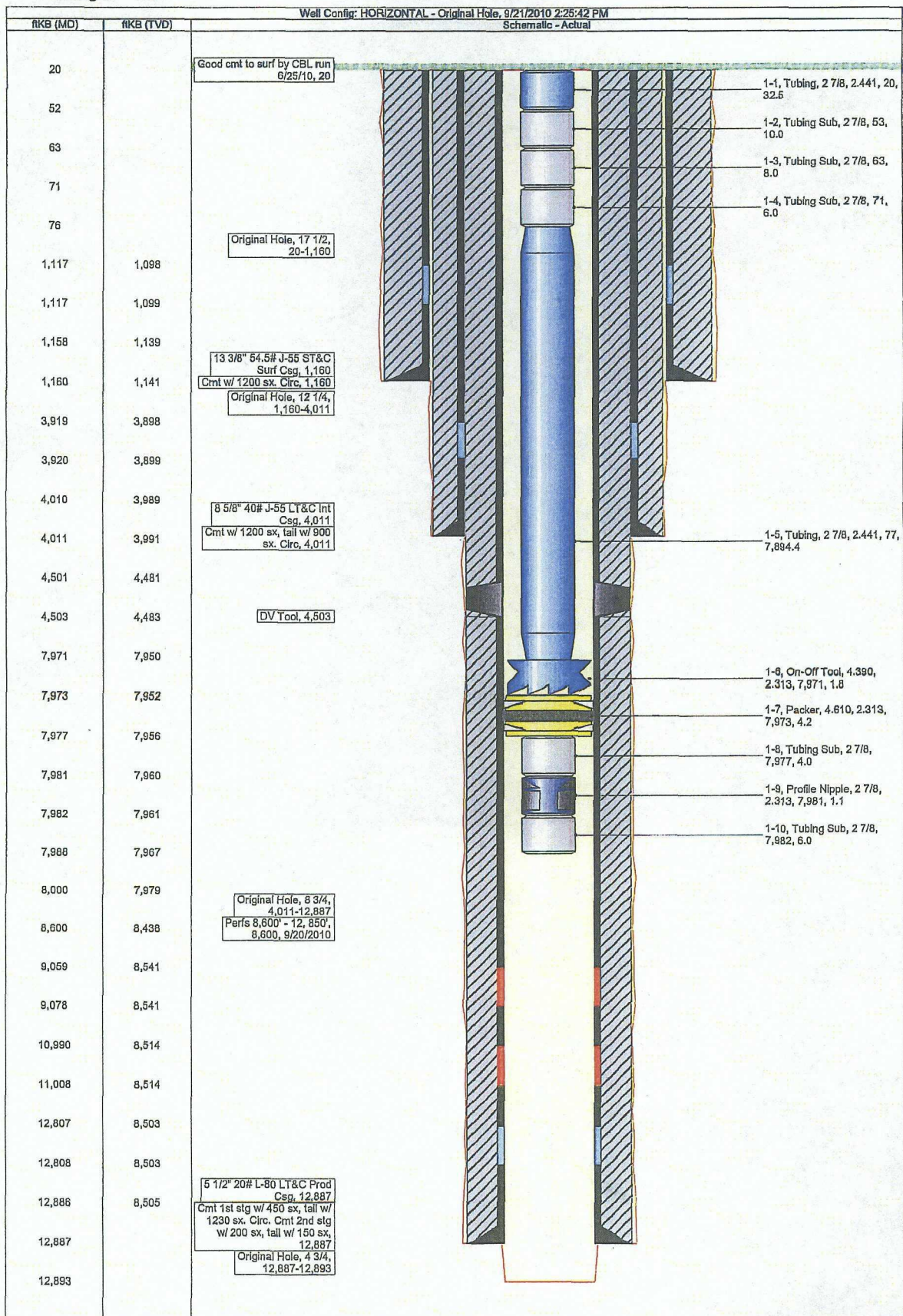
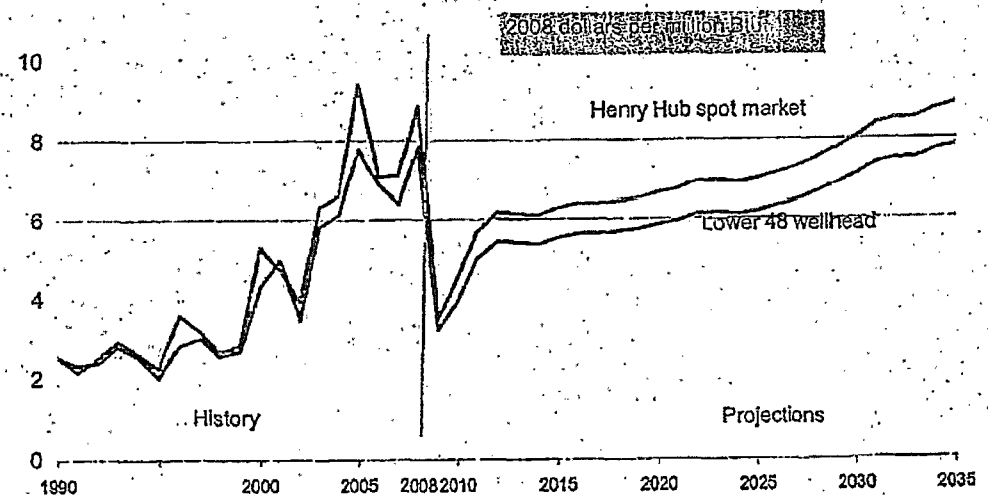


Figure 69. Annual average lower 48 wellhead and Henry Hub spot market prices for natural gas, 1990-2035 (2008 dollars per million Btu)

	Wellhead price	Henry Hub spot price
1990	2.55	2.6
	2.3	2.2
	2.4	2.51
	2.81	2.94
	2.54	2.61
	2.03	2.25
	2.83	3.59
	3.02	3.21
	2.57	2.65
	2.69	2.84
2000	4.32	5.28
	4.99	4.74
	3.49	3.95
	5.83	6.3
	6.14	6.6
2005	7.77	9.41
	6.87	7.07
	6.38	7.12
2008	7.85	8.86
	3.24	3.49
2010	3.94	4.5
	5.02	5.68
	5.45	6.17
	5.42	6.13
	5.38	6.09
2015	5.54	6.27
	5.63	6.38
	5.64	6.38
	5.69	6.43
	5.75	6.51
2020	5.87	6.64
	5.96	6.74
	6.12	6.93
	6.15	6.96
	6.11	6.91
2025	6.18	6.99
	6.32	7.15
	6.44	7.29
	6.65	7.53
	6.87	7.77
2030	7.11	8.05
	7.41	8.39
	7.51	8.5
	7.53	8.53
	7.73	8.75
2035	7.84	8.88

Figure 69. Annual average lower 48 wellhead and Henry Hub spot market prices for natural gas, 1990-2035

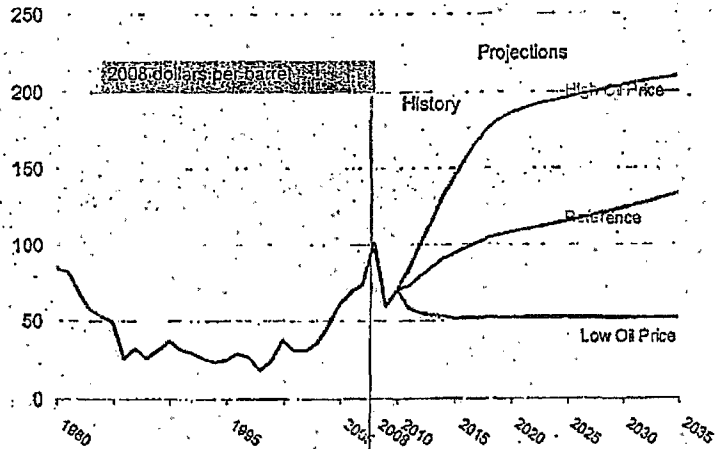


U.S. Energy Information Administration, Natural Gas Annual 2007, DOE/EIA-0131(2007) (Washington, DC, January 2009). Henry Hub natural gas prices: U.S. Energy Information Administration, Short-Term Energy Outlook Query System, Monthly Natural Gas Data, Variable NGHHUUS. Projections: AEO-2010 National Energy Modeling System, run AEO2010R.D111809A.

Figure 16. Average annual world oil prices in three cases, 1980-2035 (2008 dollars per barrel)

	Reference	High	Low
1980	84.95		
	82		
	68.31		
	57.56		
	53.27		
	48.98		
	25.86		
	32.11		
	25.83		
	30.61		
	36.81		
	31.23		
	29.15		
	25.53		
	23.33		
1995	24.5		
	28.85		
	26.44		
	18.3		
	24.19		
	37.19		
	31.06		
	30.76		
	35.75		
	46.35		
2005	61.34		
	69.27		
	73.89		
2008	101.45		
	59.21	59.21	59.21
2010	70.3	70.3	70.3
	73.06	83.89	57.84
	79.41	100.4	54.88
	85.74	115.55	53.86
	90.91	132.86	52.79
2015	94.52	144.78	51.59
	98.23	156.35	51.73
	101.23	166.97	51.78
	104.41	175.39	51.82
	106.47	181.21	51.91
2020	108.28	185.63	51.86
	109.52	188.38	51.83
	110.92	190.68	51.82
	112.32	192.76	51.8
	113.63	194.06	51.76
2025	115.09	196.01	51.73
	116.61	197.59	51.71
	118.32	198.81	51.71
	120.13	200.45	51.66
	122.04	202.29	51.62
2030	123.5	203.91	51.63
	125.56	205.32	51.59
	127.43	206.73	51.53
	129.29	207.78	51.5
	131.25	208.7	51.49
2035	133.22	209.6	51.44

Figure 16. Average annual world oil prices in three cases, 2005-2035



U.S. Energy Information Administration, Annual Energy Review 2008, DOE/EIA-0384 (2008)
(Washington, DC, June 2009). Projections: AEO2010 National Energy Modeling System, runs
AEO2010R.D111809A, LP2010.D011910A, and HP2010.D011910A.