

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

March 30, 2011

RECEIVED OOD

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 Big Sinks 26 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 Big Sinks 26 Federal 1H FORMATION Bone Spring
 LOCATION M UNIT, 150 FEET FROM South LINE & 600 FEET FROM West LINE
 SECTION 26 TOWNSHIP 24S RANGE 30E COUNTY EDDY NEW MEXICO
 SPUD DATE 10/29/2009 COMPLETION DATE 02/02/2010 INITIAL PRODUCTION 02/10/2010
 PERFORATIONS 9,197'-13,200'

BHL: 355' FNL & 468' FwL Sec 26 T24S R30E

STIMULATION:

ACID _____

FRACTURE Frac with 40,000 gals 14% HCL, 82,331 BBLs Frac Fluid, 3,165,819 LBS sand

POTENTIAL 2/12/2010: 358 BOPD, 562 MCFPD, 1,821 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>	_____
Porosity (por), %	<u>7%</u>	_____
Water saturation (Sw), %	<u>40%</u>	_____
Net Thickness (h), ft.	<u>67</u>	_____
Temperature (T), Fahrenheit	<u>120</u>	_____
Bottom Hole pressure (P), psia	<u>3,954</u>	_____
Recovery factor (RF), %	<u>45%</u>	_____
Recoverable gas, BCF *(See eq. below)	<u>2.577</u>	_____

*Sometimes unable to match performance due to volumetric uncertainty.

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

Bgi = 0.6100 RB/MCF

PERFORMANCE DATA

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

CUMULATIVE PRODUCTION TO 01/01/2011 108,993 MCF Gas 38,634 BBL Oil

INITIAL RATE (qi) 607 MCFPD

ECONOMIC LIMIT (qi) 10 MCFPD

HYPERBOLIC DECLINE RATE, dy n=1.5 d= 51.45%/yr

REMAINING GAS (Q) = 1,047,257

ULTIMATE RECOVERABLE GAS (mcf) 1,156,250

(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>156.82</u>	<u>3,526.0</u>	<u>459.5</u>	<u>-3,038.1</u>
2	<u>125.20</u>	<u>2,335.4</u>	<u>371.4</u>	<u>1,837.4</u>
3	<u>82.99</u>	<u>1,671.1</u>	<u>313.5</u>	<u>1,208.4</u>
4	<u>64.70</u>	<u>1,386.9</u>	<u>288.6</u>	<u>930.7</u>
5	<u>54.04</u>	<u>1,215.3</u>	<u>273.5</u>	<u>759.9</u>
6	<u>46.91</u>	<u>1,093.1</u>	<u>262.9</u>	<u>637.8</u>
7	<u>41.75</u>	<u>1,006.4</u>	<u>255.3</u>	<u>549.5</u>
8	<u>37.81</u>	<u>935.1</u>	<u>249.1</u>	<u>478.0</u>
9	<u>34.69</u>	<u>880.1</u>	<u>244.3</u>	<u>421.9</u>
10	<u>32.14</u>	<u>831.1</u>	<u>240</u>	<u>373.5</u>
REMAINDER	<u>479.20</u>	<u>14,230.2</u>	<u>6692.6</u>	<u>3,045.7</u>
TOTAL	1,156.25	29,110.6	9650.7	7,204.7

WELL IS COMMERCIAL

Lease: PLU BIG SINKS 26 FED 1H
 Field: POKER LAKE
 Operator: BOPCO
 County: EDDY State: NM
 Oil Differential: -3.41 \$/BBL

DATE : 01/24/2011
 TIME : 14:09:33
 DBS : CHK0101
 SETTINGS : GGA0210PVO
 QUALIFIER: CEC0111

RESERVES AND ECONOMICS

AS OF DATE: 02/2010

--END-- MO-YEAR	GROSS OIL PRODUCTION --MMBLS--	GROSS GAS PRODUCTION --MMCF--	NET OIL PRODUCTION --MMBLS--	NET GAS PRODUCTION --MMCF--	NET NGL PROD --MMBLS--	NET EQUIV PRODUCTION --MMCFE--	----- OIL \$/BBL	PRICES GAS \$/MCF	----- NGL \$/BBL	NET OIL SALES --M\$--	NET GAS SALES --M\$--	NET NGL SALES --M\$--
02-2010	6.57	11.82	5.75	4.76	0.78	43.89	66.890	3.767	34.86	384.42	17.32	27.03
12-2010	43.48	145.00	38.05	58.36	9.52	343.74	66.890	3.767	34.86	2545.95	219.86	431.71
12-2011	29.65	125.20	25.95	50.39	8.22	255.36	69.650	4.800	34.86	1807.07	241.88	286.41
12-2012	19.66	82.99	17.20	33.41	5.45	169.28	76.000	5.211	34.86	1307.15	174.08	189.87
12-2013	15.32	64.70	13.41	26.04	4.25	131.97	82.330	5.182	34.86	1103.93	134.96	148.62
12-2014	12.60	54.04	11.20	21.75	3.55	110.22	87.500	5.144	34.86	979.85	111.88	122.62
12-2015	11.11	46.91	9.72	18.88	3.08	95.68	91.110	5.297	34.86	885.72	100.02	107.22
12-2016	9.89	41.75	8.65	16.80	2.74	85.16	94.820	5.383	34.86	820.41	90.46	92.51
12-2017	8.96	37.81	7.84	15.22	2.48	77.12	97.820	5.393	34.86	766.52	82.08	86.50
12-2018	8.23	34.69	7.19	13.96	2.28	70.75	100.820	5.441	34.86	724.77	75.96	79.35
12-2019	7.61	32.14	6.66	12.94	2.11	65.56	103.060	5.498	34.86	686.44	71.12	73.53
12-2020	7.33	30.01	6.22	12.08	1.97	61.22	104.870	5.613	34.86	652.28	67.80	69.66
12-2021	6.68	28.21	5.85	11.35	1.85	57.53	106.110	5.699	34.86	620.27	64.70	64.53
12-2022	6.31	26.65	5.52	10.73	1.75	54.36	107.510	5.852	34.86	593.77	62.77	60.97
12-2023	5.99	25.28	5.24	10.18	1.66	51.57	108.910	5.880	34.86	570.68	59.85	57.84
12-2024	5.69	24.02	4.98	9.67	1.58	48.99	110.220	5.842	34.86	548.66	56.48	54.95
12-2025	5.40	22.82	4.73	9.18	1.50	46.54	111.680	5.909	34.86	528.13	54.27	52.20
S TOT	210.45	834.04	184.14	335.70	54.73	1768.95	84.311	5.023	34.86	15525.12	1686.12	1998.03
AFTER	76.31	322.21	66.77	129.69	21.14	657.20	124.810	7.097	34.86	8333.91	920.35	737.11
TOTAL	286.76	1156.25	250.91	465.39	75.88	2426.15	95.089	5.601	34.86	23859.03	2606.46	2645.14

--END-- MO-YEAR	NO.OF AD WELLS	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\$--
02-2010	1.	0.79	36.18	0.00	14.00	0.00	14.00	6050.00	-5671.60	-5671.60	-5671.60
12-2010	1.	5.67	262.84	0.00	140.00	0.00	140.00	0.00	2688.12	-2983.48	-2983.48
12-2011	1.	4.27	199.15	0.00	168.00	0.00	168.00	0.00	1963.94	-1019.55	-1019.55
12-2012	1.	3.06	142.39	0.00	168.00	0.00	168.00	0.00	1357.65	338.10	338.10
12-2013	1.	2.54	118.02	0.00	168.00	0.00	168.00	0.00	1098.36	1436.46	1436.45
12-2014	1.	2.22	103.31	0.00	168.00	0.00	168.00	0.00	941.81	2378.27	2378.25
12-2015	1.	2.00	92.88	0.00	168.00	0.00	168.00	0.00	830.17	3208.44	3208.42
12-2016	1.	1.84	85.48	0.00	168.00	0.00	168.00	0.00	751.07	3959.51	3959.48
12-2017	1.	1.71	79.39	0.00	168.00	0.00	168.00	0.00	686.01	4645.51	4645.49
12-2018	1.	1.61	74.69	0.00	168.00	0.00	168.00	0.00	635.79	5281.31	5281.27
12-2019	1.	1.52	70.51	0.00	168.00	0.00	168.00	0.00	591.05	5872.36	5872.32
12-2020	1.	1.44	66.91	0.00	168.00	0.00	168.00	0.00	552.38	6424.75	6424.70
12-2021	1.	1.37	63.58	0.00	168.00	0.00	168.00	0.00	516.55	6941.29	6941.24
12-2022	1.	1.31	60.87	0.00	168.00	0.00	168.00	0.00	487.32	7428.62	7428.56
12-2023	1.	1.26	58.39	0.00	168.00	0.00	168.00	0.00	460.72	7889.34	7889.28
12-2024	1.	1.21	55.98	0.00	168.00	0.00	168.00	0.00	434.91	8324.25	8324.19
12-2025	1.	1.16	53.81	0.00	168.00	0.00	168.00	0.00	411.64	8735.89	8735.82
S TOT	1.	34.99	1624.38	0.00	2674.00	0.00	2674.00	6050.00	8735.89	8735.89	8735.82
AFTER	1.	18.29	847.04	0.00	4452.00	0.00	4452.00	16.00	4658.05	13393.94	13393.76
TOTAL	1.	53.28	2471.42	0.00	7126.00	0.00	7126.00	6066.00	13393.94	13393.94	13393.76

	OIL @2/2010	GAS @2/2010		P.W. %	P.W. MS
GROSS WELLS	1.0	0.0	LIFE, YRS.	42.42	0.00
GROSS ULT., MB & MMF	286.758	1156.251	DISCOUNT %	0.00	5.00
GROSS CUM., MB & MMF	0.000	0.000	UNDISCOUNTED PAYOUT, YRS.	2.67	8.00
GROSS RES., MB & MMF	286.758	1156.251	DISCOUNTED PAYOUT, YRS.	2.67	10.00
NET RES., MB & MMF	250.914	465.391	UNDISCOUNTED NET/INVEST.	3.21	12.00
NET REVENUE, M\$	23859.033	2606.461	DISCOUNTED NET/INVEST.	3.21	14.00
INITIAL PRICE, \$	66.890	3.767	RATE-OF-RETURN, PCT.	33.56	16.00
INITIAL N.I., PCT.	87.500	87.500	INITIAL W.I., PCT.	100.000	20.00
NET EQUIV RES., MMCFE		2426.146	REVERSION, YRS.	0.00	25.00
PLANT GROSS PROD (MU)	86.719				30.00
PLANT NET PROD (MU)	75.879				40.00
PLANT NET REVENUES (M\$)	2645.142				50.00
					60.00
					80.00
					100.00

District: PERMIAN

Lease: PLU 6BIG SINKS 26 FED 1H
Aries Code: RLTO561 Prop_Num: 624842
Field: POKER LAKE Reservoir: BONE SPRING FIRST
Operator: BOPCO State: NM
County: EDDY

WATER-BBL/DAY
GAS PROD-MCF/DAY
OIL-BBL/DAY

1000
100
10
1

1000
100
10
1

1000
100
10
1

1000
100
10
1

19
18
17
16
15
14
13
12
11
10
TIME

GOR-SCE/BBL

1000

100

10

CONFIDENTIAL UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

MAR 11 2010

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM02862

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
NMNM71016X

8. Lease Name and Well No.
PLU BIG SINKS 26 FEDERAL 1H

9. API Well No.
30-015-37031-00-S1

10. Field and Pool, or Exploratory
WILDCAT

11. Sec., T., R., M., or Block and Survey
or Area Sec 26 T24S R30E Mer NMP

12. County or Parish
EDDY

13. State
NM

17. Elevations (DT, KB, RT, GL)*
3342 GL

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. E-Mail: linda.good@chk.com

Contact: LINDA GOOD

3. Address
OKLAHOMA CITY, OK 73154-0496

1a. Phone No. (include area code)
Ph: 405-935-4275

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

At surface Sec 26 T24S R30E Mer NMP
SWSW 150FSL 600FWL 32.18207 N Lat, 103.85830 W Lon

At top prod interval reported below

Sec 26 T24S R30E Mer NMP

At total depth NVNW 350FNL 600FWL

14. Date Spudded
10/29/2009

15. Date T.D. Reached
12/24/2009

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

18. Total Depth: MD 13242
TVD 9144

19. Plug Back T.D.: MD
TVD

20. Depth Bridge Plug Set: MD 13225
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each).
DLL MGRD ACRT DSN SDL

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		674		1500		0	
8.750	5.500 L-80	20.0		13242		2840		2470	
12.250	9.625 J55	40.0	0	4020	950	1350		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	7015							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	9197	13200	9197 TO 13200		400	OPEN
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
9197 TO 13200	FRAC W/40,000 GAL 15% HCL, 82,321 BBL, 3,165,819# 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
02/10/2010	02/11/2010	1	→	2.0	0.0	22.0			FLOW FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
30/64	600		→	48	0	528		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
			→						MAR 6 2010
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 #82082 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
LAMAR BONE SPRING	3937 7765	3963 11400			

32. Additional remarks (include plugging procedure):

LOGS SUBMITTED VIA UPS OVERNIGHT MAIL.

ATTACHMENTS:
Directional Survey
Pilot Hole Survey
Inclination Rpt
Wellbore Diagram
Final Plat (C-102)

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 #82082 Verified by the BLM Well Information System.

For CHESAPEAKE OPERATING, INC., sent to the Carlsbad

Committed to AFMSS for processing by KURT SIMMONS on 03/01/2010 (10KMS0825SE)

Name (please print) LINDA GOOD

Title SR. REGULATORY COMPLIANCE SPEC

Signature (Electronic Submission)

Date 03/01/2010

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.

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

INCLINATION REPORT

FIELD NAME OPERATOR Chesapeake Operating Inc. ADDRESS 2010 Rankin Highway, Midland, TX 79701 LOCATION (Section, Block, and Survey)	LEASE NAME PLU Big Sink 26 Federal 1-H County Eddy
---	---

RECORD OF INCLINATION

Measured Depth (feet)	Course Length (Hundreds of feet)	Angle of Inclination (Degrees)	Displacement per 100 feet (Sine of Angle x 100)	Course Displacement (Feet)	Accumulative Displacement (Feet)
474	474	1.00	1.75	8.27	8.27
1,049	575	0.50	0.87	5.02	13.29
1,708	659	0.70	1.22	8.05	21.34
2,555	847	0.90	1.57	13.30	34.65
3,304	749	1.50	2.62	19.61	54.25
3,964	660	0.25	0.44	2.88	57.13
4,702	738	0.25	0.44	3.22	60.35
5,700	998	0.25	0.44	4.35	64.71
6,192	492	0.75	1.31	6.44	71.15
6,805	613	0.70	1.22	7.49	78.64
7,368	563	16.10	27.73	156.13	234.76
8,366	998	19.40	33.22	331.50	566.26
9,362	996	15.40	26.56	264.49	830.75
10,315	953	11.50	19.94	190.00	1,020.75
11,218	903	8.90	15.47	139.70	1,160.46
12,192	974	90.00	100.00	974.00	2,134.46
13,045	853	90.80	99.99	852.92	2,987.37

Accumulative total displacement of well bore at total depth of
 Inclination measurements were made in ☐ Tubing

13,045 feet = 2,987.37 feet

☐ Casing

☐ Open Hole

☒ Drill Pipe

Inclination Data Certification

I declare that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge.

 Date 1/11/10

Signature of Authorized Representative

Date

Mark Cochran CFO

Name of Person and Title

Latshaw Drilling Company, LLC

Name of Company

Telephone: 918-355-4380

Inclination Data Certification

I declare that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge.

Signature of Authorized Representative

Date

Name of Person and Title

Operator

Telephone:

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 Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form O-112
Revised October 15, 2009
Submit one copy to appropriate
District Office
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-37031		² Pool Code 96403		³ Pool Name Wildcat; Bone Spring	
⁴ Property Code 37645		⁵ Property Name PLU Big Sinks 26 Federal			⁶ Well Number 1H
⁷ OGRID No. 147179		⁸ Operator Name Chesapeake Operating, Inc.			⁹ Elevation 3342' GR

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	26	24S	30E		150'	South	600'	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	26	24S	30E		355'	North	468'	West	Eddy

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

	16 BOTTOM HOLE LOCATION 355' FNL & 468' FWL			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 (as well as 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>Bryan Arrant</i> 01/19/2010 Signature Date Bryan Arrant Printed Name	
	PRODUCING AREA	PROJECT AREA			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 _____ PLEASE REFER TO ORIGINAL PLAT Certificate Number _____
	PENETRATION POINT 343' FSL & 588' FWL SURFACE HOLE LOCATION 150' FSL & 680' FWL				



BLM PLU Schematic
PLU BIG SINKS 26 FEDERAL 1H

CONFIDENTIAL

Field: Delaware Basin North
County: EDDY
State: NEW MEXICO
Location: SEC 26, 24S-30E, 150 FSL & 600 FWL
Elevation: GL 3,338.00 KB 3,360.00
KB Height: 22.00

Spud Date: 10/29/2009
Initial Compl. Date:
API #: 3001537031
CHK Property #: 624842
1st Prod Date: 2/10/2010
PBDT: Original Hole - 13225.0
TD: 13,247.0

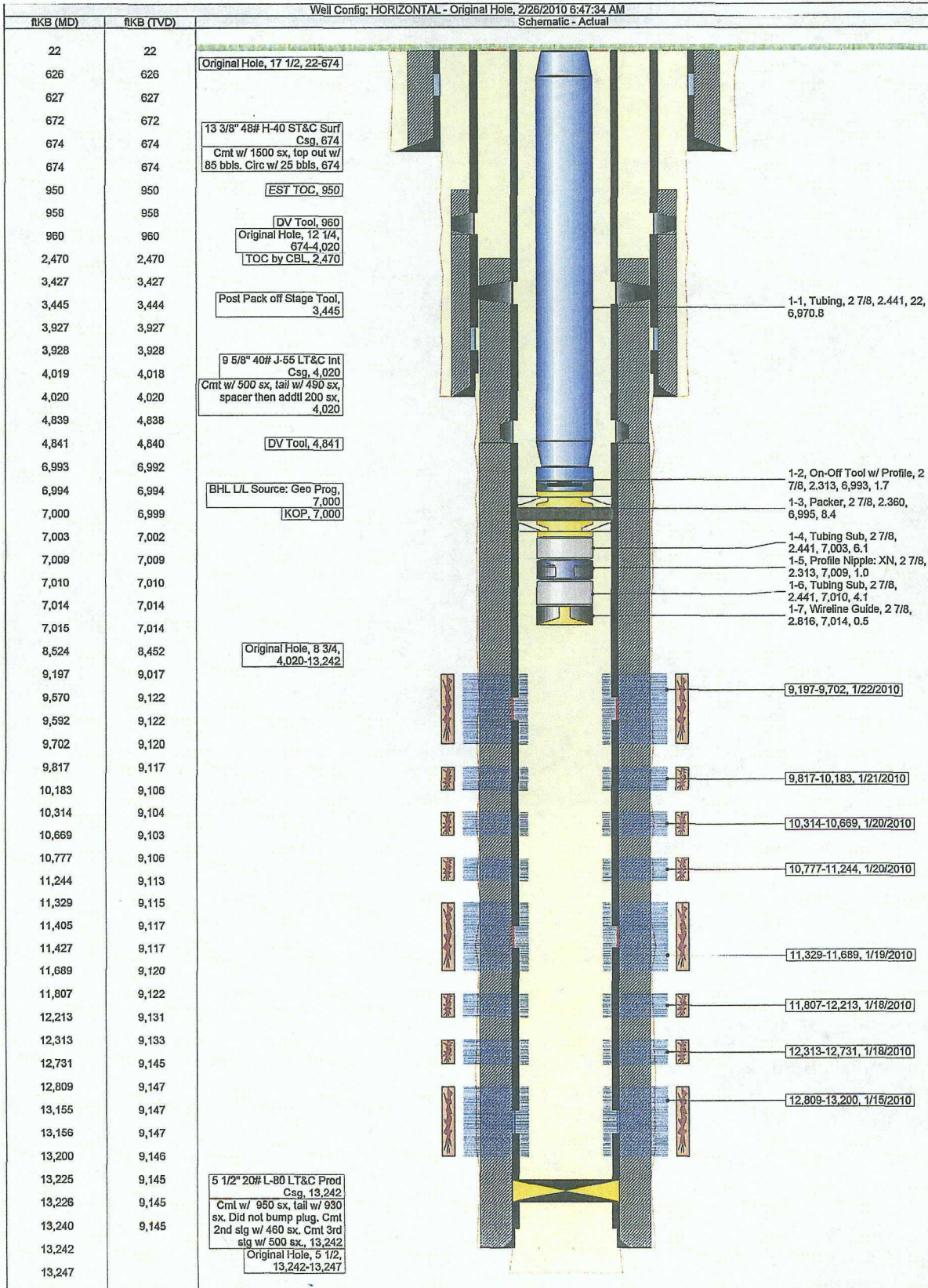
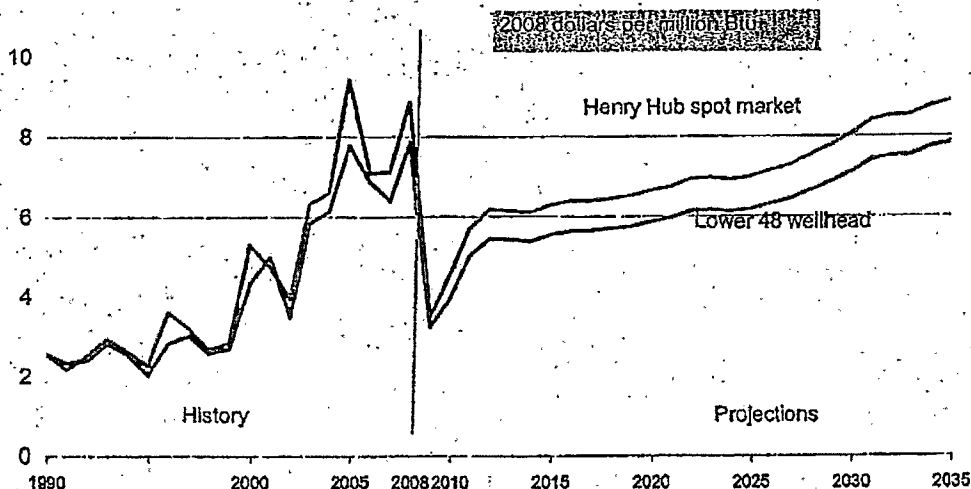


Figure 69. Annual average lower 48 wellhead and Henry Hub spot market prices for natural gas, 1990-2035 (2008 dollars per million Btu)

	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

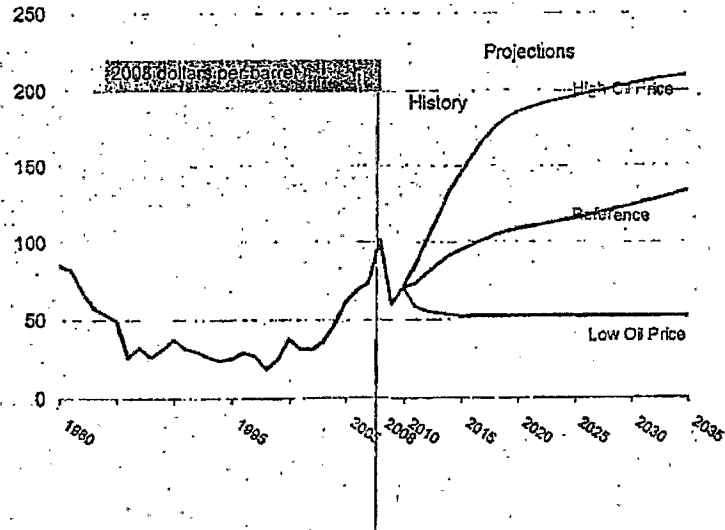


U.S. Energy Information Administration, Natural Gas Annual 2007, DOE/EIA-0131(2007) (Washington, DC, January 2009). Henry Hub natural gas prices: U.S. Energy Information Administration, Short-Term Energy Outlook Query System, Monthly Natural Gas Data, Variable NGHHUUS. Projections: AEO-2010 National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