

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

July 6, 2010

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

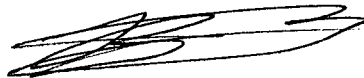
Re: Commercial Determination
James Ranch Unit Well No. 108H
Delaware Formation
Eddy County, New Mexico

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 Delaware 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,



Brad Glasscock

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
MIDLAND OFFICE

April 8, 2010

TO: FORT WORTH, FILES
FOR: FRANK McCREIGHT
FROM: STEVE F. JOHNSON
RE: COMMERCIAL DETERMINATION
JAMES RANCH UNIT #108H
QUAHADA RIDGE SE (DELAWARE) FIELD
EDDY COUNTY, NEW MEXICO
FILE: 100-WF: JRU108HCD.DOC

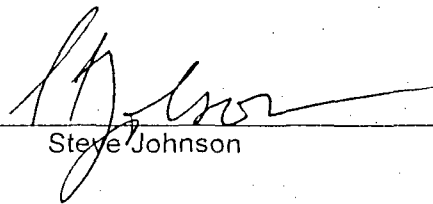
Attached are the worksheets and necessary exhibits for the subject well to be submitted for commercial determination. The James Ranch Unit #108H was drilled in 2009 to a measured depth of 14,087' and was completed in the Delaware. The well is producing from Delaware perforations 7,747-14,033'. On test 3/28/2010 the well pumped at the rate of 475 BOPD, 261 MCFPD, and 2028 BWPD. This well is expected to recover approximately 449.709 MBOE from the current completion.

The most recent price file from Fort Worth was utilized and the oil price was adjusted by - \$3.44/BO plus a \$.57/mcf transportation fee. An operating cost of \$13,000/mo for 18 months and \$6,500 thereafter was also incorporated in this evaluation. The James Ranch Unit #108H will be a commercial well and should be incorporated into a participating area.

PS

RSD/cdp

cc: Ross Sutton
George Hillis
Brad Glasscock



Steve Johnson

WORKSHEET FOR COMMERCIAL DETERMINATION AND PARTICIPATING AREA IN FEDERAL UNITS

WELL DATA

WELL James Ranch Unit #108H FORMATION DELAWARE
 LOCATION C UNIT 940 FEET FROM NORTH LINE & 2080 FEET FROM WEST LINE
 SECTION 1 TOWNSHIP 23S RANGE 30E COUNTY Eddy NEW MEXICO
 SPUD DATE 12/6/2009 COMPLETION DATE 3/24/2010 INITIAL PRODUCTION 3/24/2010
 PERFORATIONS 7747-14033'

* BHL UL D 632" FNL 330' FWL SEC 2, T23S R30E
 STIMULATION:

ACID _____

FRACTURE Frac w/ 99,834 gal 25# linear gel, 1,178,813 gals YF12ST w/ 3,210,637# 16/30 Ottawa Sand
in 22 stages.

POTENTIAL (3/28/2010): 475 BOPD, 261 MCFPD, 2028 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>240</u>	<u> </u>
Porosity (Φ), %	<u>12%</u>	<u> </u>
Water saturation (Sw), %	<u>55%</u>	<u> </u>
Net Thickness (H), ft.	<u>86</u>	<u> </u>
Temperature (T), Fahrenheit	<u>120</u>	<u> </u>
Bottom Hole pressure (P), psia	<u>3,331</u>	<u> </u>
Recovery factor (RF), %	<u>15%</u>	<u> </u>
Recoverable Oil, Bbls *(See eq. below)	<u>662,918</u>	<u> </u>

*Sometimes unable to match performance due to volumetric uncertainty.

Formula = $(7758) (A) (H) (\Phi) (1-S_w) (1/B_o) (RF)$

B_o = 1.50

Continued

PERFORMANCE DATA

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

CUMULATIVE PRODUCTION TO 2/28/2010 0 BBL OIL 0 MCFINITIAL RATE (qi) 800ECONOMIC LIMIT (ql) 4HYPERBOLIC DECLINE RATE, dy n = 1.2, d = 98%/yrREMAINING OIL (Q) = 380,130ULTIMATE RECOVERABLE OIL (BO) 380,130

(Attach plat showing proration unit and participating area.)

ECONOMIC

GROSS WELL COST \$2,221,668 (to the depth of formation completed)COMPLETION COST \$3,033,562GROSS TOTAL COST \$5,255,230

YEAR	GROSS OIL MBBLS	BFIT NET INCOME (\$M)	OPERATING COST (\$M) INCL SEV & AD VAL TAX	5% NET BFIT DISCOUNTED CASH FLOW
ZERO				
1	69.509	5257.2	697.2	-828.0
2	39.222	3068.5	478.4	2404.1
3	24.973	1975.7	296.3	1483.9
4	18.651	1485.9	239.7	1045.2
5	15.070	1209.5	209.3	797.7
6	12.723	1031.8	189.7	638.8
7	11.083	908.0	156.3	542.3
8	9.800	812.5	146.3	457.2
9	8.824	741.3	140.2	392.4
10	8.039	682.0	135.2	339.5
REMAINDER	161.748	13952.0	5702.4	2741.9
TOTAL	379.642	31124.3	8391.1	10014.9

WELL IS COMMERCIAL

ECONOMIC PROJECTION

Date : 4/9/2010

Lior:

1:16:09PM

Project Name : Exp of Risked 2009 New wells databa
 Partner : ALL CASES
 Case Type : LEASE CASE
 Archive Set : BUDGET2009

As Of Date : 01/01/2010
 Discount Rate (%) : 5.00
 James Ranch Unit #108H

Lease Name : James Ranch Unit #108H
 Reserv Cat : Proved Producing
 Field : LOS MEDANOS
 Operator : BOPCO
 Reservoir : DELAWARE
 Co., State : EDDY, NM

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

Risk: 0.000 Inherited/ 0.000 Compounded

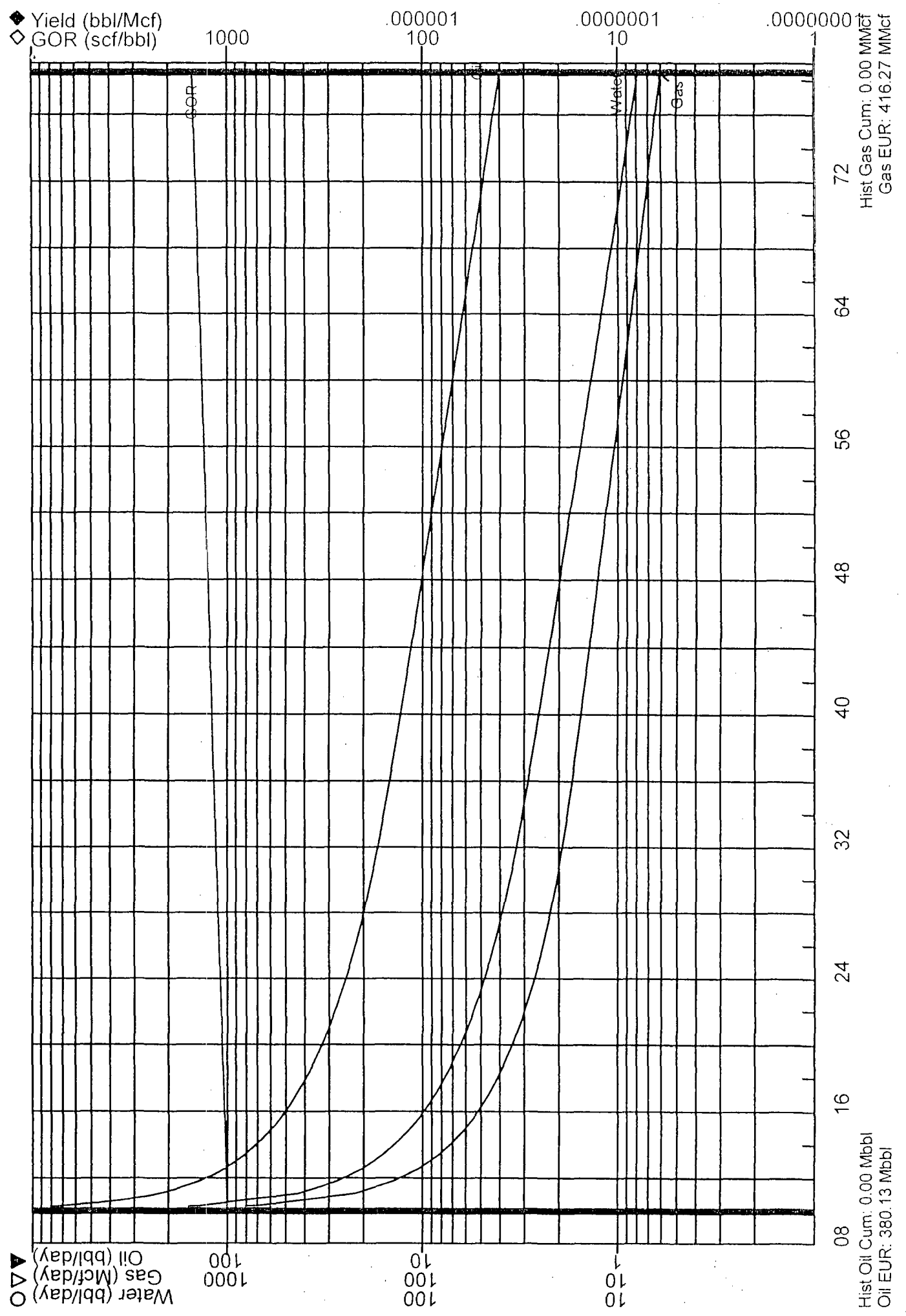
Year	Gross Wet Production		Gross Dry Gas & NGL		Sales		
	Oil (Mbbbl)	Wet Gas (MMcf)	Dry Gas (MMcf)	NGL (Mgal)	Oil (Mbbbl)	Gas (MMcf)	NGL (Mgal)
2010	69.509	69.668	45.243	222.938	60.264	39.225	193.288
2011	39.222	39.523	25.666	126.472	34.005	22.252	109.651
2012	24.973	25.318	16.441	81.017	21.652	14.255	70.242
2013	18.651	19.022	12.353	60.871	16.171	10.710	52.775
2014	15.070	15.462	10.041	49.477	13.066	8.705	42.897
2015	12.723	13.131	8.527	42.019	11.031	7.393	36.431
2016	11.083	11.507	7.473	36.822	9.609	6.479	31.925
2017	9.800	10.235	6.647	32.754	8.497	5.763	28.397
2018	8.824	9.271	6.020	29.667	7.650	5.220	25.721
2019	8.039	8.496	5.518	27.189	6.970	4.784	23.573

Rem	161.748	193.901	125.919	620.484	140.235	109.172	537.960
Total	379.641	415.534	269.848	1,329.710	329.149	233.958	1,152.858
Ult.	379.641	415.534					

Year	Average Price			Net Revenue			
	Oil (\$/bbl)	Gas (\$/Mcf)	NGL (\$/gal)	Oil (M\$)	Gas (M\$)	NGL (M\$)	Total (M\$)
2010	81.68	4.45	0.83	4,922.36	174.40	160.43	5,257.18
2011	83.89	5.60	0.83	2,852.84	124.65	91.01	3,068.50
2012	84.58	6.04	0.83	1,831.28	86.10	58.30	1,975.68
2013	85.00	6.31	0.83	1,374.50	67.60	43.80	1,485.91
2014	85.45	6.60	0.83	1,116.41	57.44	35.60	1,209.45
2015	86.16	6.93	0.83	950.39	51.22	30.24	1,031.84
2016	86.84	7.26	0.83	834.40	47.07	26.50	907.96
2017	87.70	7.60	0.83	745.13	43.80	23.57	812.50
2018	88.68	7.96	0.83	678.44	41.53	21.35	741.31
2019	89.39	8.23	0.83	623.03	39.35	19.57	681.95
Rem	89.39	8.88	0.83	12,535.62	969.87	446.51	13,952.00
Total	86.48	7.28	0.83	28,464.39	1,703.03	956.87	31,124.29

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\$)
2010	377.06	10.51	5,255.23	309.66	-695.28	-695.28	-828.04	-828.04
2011	220.46	6.14	0.00	251.78	2,590.13	1,894.85	2,404.09	1,576.05
2012	142.04	3.95	0.00	147.31	1,682.38	3,577.22	1,483.94	3,059.99
2013	106.88	2.97	0.00	129.80	1,246.25	4,823.48	1,045.17	4,105.17
2014	87.04	2.42	0.00	119.88	1,000.11	5,823.59	797.68	4,902.84
2015	74.29	2.06	0.00	113.38	842.10	6,665.69	638.81	5,541.65
2016	65.41	1.82	0.00	89.08	751.66	7,417.35	542.29	6,083.95
2017	58.56	1.63	0.00	86.09	666.23	8,083.59	457.19	6,541.13
2018	53.45	1.48	0.00	85.30	601.08	8,684.66	392.35	6,933.48
2019	49.19	1.36	0.00	84.67	546.72	9,231.39	339.48	7,272.97
Rem	1,009.85	27.90	0.00	4,664.65	8,249.60	8,249.60	2,741.93	2,741.93
Total	2,244.24	62.25	5,255.23	6,081.58	17,480.98	17,480.98	10,014.89	10,014.89

Major Phase :	Oil	Working Int :	1.00000000	Present Worth Profile (M\$)	
Perfs :	0	Revenue Int :	0.86700000		
Initial Rate :	24,333.33 bbl/month	Disc. Initial Invest. (m\$) :	5,255.230	1.00% :	15,251.28
Abandonment :	123.58 bbl/month	Internal ROR (%) :	54.99	5.00% :	10,014.89
Initial Decline :	98.00 % year b = 1.200	ROI Investment (disc/undisc) :	2.91 / 4.33	10.00% :	6,883.88
Beq Ratio :	1.00 Mcf/bbl	Years to Payout :	1.21	15.00% :	5,073.72
End Ratio :	1.50 Mcf/bbl	Abandonment Date :	12/27/2077	20.00% :	3,841.97
Forecast Start :	04/01/2010			25.00% :	2,924.75
		Initial	1st Rev.	30.00% :	2,202.50
		Working Interest :	0.00000000	40.00% :	1,115.58
		Revenue Interest :	0.86700000	50.00% :	319.03
		Rev. Date :		60.00% :	-300.27



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			5. Lease Serial No. NM 02884A		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____			6. If Indian, Allottee or Tribe Name		
2. Name of Operator BOPCO, L.P.			7. Unit or CA Agreement Name and no.		
3. Address P.O. Box 2760 Midland TX 79702			8. Lease Name and Well No. James Ranch Unit 108H		
3.a. Phone No. (Include area code) (432)683-2277			9. API Well No. 30-015-37273		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At Surface UL C, 2080' FWL, 940' FNL, Lat N 32.33873, Long W 103.83622 At top prod. interval reported below At total depth UL D, 632' FNL, 330' FWL, Sec 2, T23S, R30E			10. Field and Pool, or Exploratory Quahada Ridge (Delaware)		
14. Date Spudded 12/06/2009			11. Sec., T., R., M., on Block and Survey or Area Sec 1, T23S, R30E		
15. Date T.D. Reached 01/03/2010			12. County or Parish Eddy		
16. Date Completed ☐ D & A ☒ Ready to Prod. 03/24/2010			13. State NM		
17. Elevations (DF, RKB, RT, GL)* 3289' GL					
18. Total Depth: MD 14,087' TVD 7278'			19. Plug Back T.D.: MD TVD		
20. Depth Bridge Plug Set: MD TVD					
21. Type of Electric & Other Mechanical Logs Run (Submit copy of each) GR /CCL Neutron			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) 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 Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2"	13-3/8" H40	48#	0	548' TVD		615 sxs		0' Circ	
12-1/4"	9-5/8" X	40#	0	3815' TVD		1250 sxs		0' Circ	
8-3/4"	7" HCP110	26#	0	7664'	5086'	335 sxs Stg I		5086' DV	
JSS/N30						700 sxs Stg II		0' Circ	
6-1/8"	4-1/2" P110	11.6#	6748'	14,050'					

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"	6740'	8rd 6.5 ppf L-80						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Delaware	3800'	7278' TVD	7,747'-14,033'	pre perf		Producing
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
7,747'-14,033'	Frac w/ 99,834 gals 25# linear, 1,178,813 gals YF125ST w/ 3,210,637# 16/30 Ottawa Sand; 22 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
03/24/10	03/28/10	24	→	475	261	2028	40	.80	Pumping
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
12/64	SI 380	95	→				549.47	Producing	

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)

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 or 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
Bell Canyon	3830'	4744'	Sandstone	T/Rustler	190'
Cherry Canyon	4744'	6028'	Sandstone	T/Salt	552'
Brushy Canyon	6028'	Not reach	Sandstone	B/Salt	3560'
				T/Lamar	3800'
				T/Bell Canyon	3830'
				T/Cherry Canyon	4744'
				T/Brushy Canyon	6028'

32. Additional remarks (include plugging procedure):

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

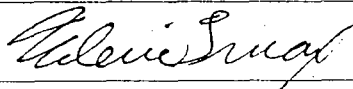
- ☒ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geological Report
 ☐ DST Report
 ☒ Directional Survey
☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☐ Other

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) Valerie Truax

Title Regulatory Admin Assistant

Signature



Date 04/08/2010

Title 18 U.S.C. Section 101 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 and false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505Form C-102
Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-37273	Pool Code 50470	Pool Name Quahada Ridge (Delaware)
Property Code 306407	Property Name JAMES RANCH UNIT	Well Number 108H
OCRID No. 260737	Operator Name BOPCO, L.P.	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
C	1	23 S	30 E		940	NORTH	2080	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
D	2	23 S	30 E		632	NORTH	330	WEST	EDDY

Dedicated Acres 240	Joint or Infill N	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 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: Gary E. Gerhard Date: May 18, 2009

Printed Name: Gary E. Gerhard

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: May 18, 2009

Signature: Gary E. Jones
Professional Surveyor
7977

Certificate No. Gary E. Jones 7977

BASIN SURVEYS

BOTTOM HOLE LOCATION
 Lat - N 32°20'22.39"
 Long - W 103°51'25.48"
 NWSPCE - N 487588.186
 E 688425.080
 (NAD-83)

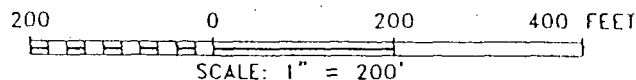
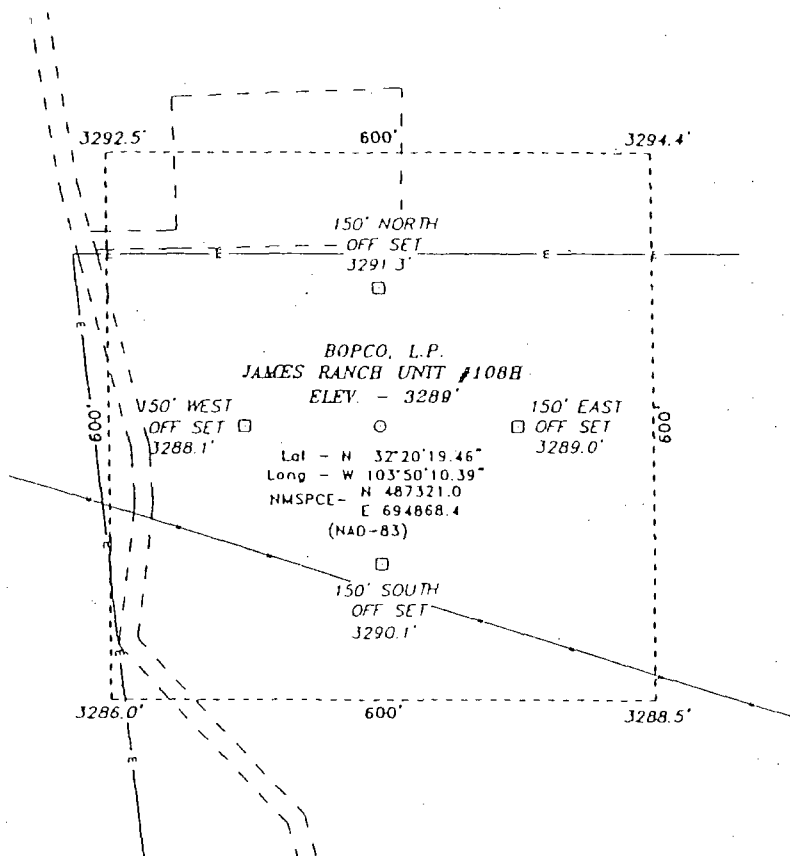
BRUSHY CANYON E.P.
 Lat - N 32°20'19.55"
 Long - W 103°50'13.02"
 NWSPCE - N 487329.520
 E 694642.380
 (NAD-83)

DELAWARE E.P.
 Lat - N 32°20'19.46"
 Long - W 103°50'10.39"
 NWSPCE - N 487321.0
 E 694868.4
 (NAD-83)

SURFACE LOCATION
 Lat - N 32°20'19.46"
 Long - W 103°50'10.39"
 NWSPCE - N 487321.0
 E 694868.4
 (NAD-83)

Survey certification for surface location only

SECTION 1, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF HWY 128 AND WIPP ROAD,
GO NORTH 0.8 MILES TO LEASE ROAD, ON LEASE
ROAD GO WEST 0.4 MILES TO LEASE ROAD, ON
LEASE ROAD GO SOUTH 700' THENCE WEST 0.2
MILES WINDING NORTH 0.25 MILES TO PROPOSED
LOCATION.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 21189

Drawn By: J. SMALL

Date: 03-03-2009

Disk: JMS 21189

BOPCO, L.P.

REF: JAMES RANCH UNIT #108H / WELL PAD TOPO

THE JAMES RANCH UNIT #108H LOCATED 940'
FROM THE NORTH LINE AND 2080' FROM THE WEST LINE OF
SECTION 1, TOWNSHIP 23 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 03-02-2009

Sheet 1 of 1 Sheets



Downhole Profile - Vertical Wells

BOPCO, L.P. - West Texas

Well ID: 30-015-37273

Well Name: JAMES RANCH UNIT #108H

Field: Quahada Ridge SE - Delaware

Sect: 1 Town: 23S Rng: 30E County: Eddy State: New Mexico

Surface Location: 940' FNL, 2080' FWL

Well Config: Horizontal - Original Hole, 4/8/2010 2:19:55 PM

Well Information

Original KB Elevation (ft)	Ground Elevation (ft)	KB-Ground Distance (ft)	Spud Date	On Production Date
3,308.00	3,289.00	19.00	12/6/2009	

Wellbores

Wellbore Name: Original Hole		Kick Off Depth (ftKB):	
Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	19.0	550.0	
12 1/4	550.0	3,815.0	
8 3/4	3,815.0	7,664.0	
6 1/8	7,664.0	14,087.0	

Casing Strings

Casing Description	Wellbore	OD (in)	Wt (lbs/ft)	Grade	Top Thread	Set @ (ftKB)
Conductor	Original Hole	20	52.70	Grade "B"		59.0
Surface	Original Hole	13 3/8	48.00	H-40	ST&C	548.0
Intermediate	Original Hole	9 5/8	40.00	J-55	LT&C	3,815.0
Intermediate 2	Original Hole	7	26.00	HCP-110	LT&C	7,664.0
Liner	Original Hole	4 1/2	11.60	P-110	UFJ	14,050.0

Perforations

Perf Date	Top (ftKB)	Btm (ftKB)	Zone	Current Status
1/2/2010	7,747.0	7,750.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	8,024.0	8,027.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	8,254.0	8,257.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	8,528.0	8,531.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	8,803.0	8,806.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	9,156.0	9,159.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	9,427.0	9,430.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	9,781.0	9,784.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	10,117.0	10,120.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	10,413.0	10,416.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	10,716.0	10,719.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	11,012.0	11,015.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	11,346.0	11,349.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	11,635.0	11,638.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	11,932.0	11,935.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	12,230.0	12,233.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	12,517.0	12,520.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	12,811.0	12,814.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	13,114.0	13,117.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	13,439.0	13,442.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	13,728.0	13,731.0	Lwr Brushy Canyon U, Original Hole	Open - Active
1/2/2010	14,030.0	14,033.0	Lwr Brushy Canyon U, Original Hole	Open - Active

Tubing Strings

Tubing Description		Run Date	String Length (ft)		Set Depth (ftKB)		
Tubing - Production		3/22/2010	6,719.56		6,740.0		
No.	Item Description	Jts	OD (in)	Wt (lbs/ft)	Grade	Top (ftKB)	
1-1	2-7/8" EUE 8rd 6.5 ppf L-80 tbg	197	2 7/8	6.70	L-80	20.44	
1-2	2-7/8" Standard Sealing Nipple	1	2 7/8			6,446.67	
1-3	2-7/8" x 4' L-80 tbg sub	1	2 3/8	4.00	L-80	6,447.77	
1-4	Baker 4" P18 ESP - Pump	1	2 7/8			6,451.55	
1-5	Baker 4" P18 ESP - Pump	1	2 7/8			6,475.60	
1-6	Baker 4" P18 ESP - Pump	1	2 7/8			6,499.14	
1-7	Baker 4" P18 ESP - Pump	1	2 7/8			6,522.70	
1-8	Baker 4" G22 ESP - Pump	1	2 7/8			6,546.18	
1-9	ESP - Intake	1	2 7/8			6,565.21	
1-10	Seal Unit	1	2 7/8			6,567.81	
1-11	Seal Unit	1	2 7/8			6,574.20	
1-12	Baker ESP - Motor	1	2 7/8			6,580.53	
1-13	Downhole Sensor	1	2 7/8			6,600.15	
1-14	Cavens Desander	1	2 7/8			6,604.25	
1-15	2-7/8" EUE 8rd 6.5 ppf L-80 tbg	4	2 7/8	8.60	L-80	6,608.91	
1-16	Bull Plug	1	2 7/8			6,739.44	

Cement

Surface Casing Cement, 12/7/2009

String: Surface, 548.0ftKB				Cement Evaluation Results: Full returns, 39 bbls cement circulated to surface.	
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtn (bbl)	Top Measurement Method	
1	19.0	550.0	44.0	Circulated	
Fluid		Amount (sacks)	Class	Density (lb/gal)	Yield (ft ³ /sack)
Lead		265 C		13.50	1.75
Tail		350 C		14.80	1.35
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtn (bbl)	Top Measurement Method	
2					

Intermediate Casing Cement, 12/12/2009

String: Intermediate, 3,815.0ftKB				Cement Evaluation Results: Full returns 98 bbls cement	
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtn (bbl)	Top Measurement Method	
1	19.0	3,815.0	93.0	Tagged	
Fluid		Amount (sacks)	Class	Density (lb/gal)	Yield (ft ³ /sack)
Lead		760		10.20	2.63
Tail		490 C		14.80	1.33

2nd Intermediate Casing Cement, 12/19/2009

String: Intermediate 2, 7,664.0ftKB				Cement Evaluation Results: Full returns, 45 bbls cement to surface on 1st stage, 18 bbls to surface on second stage	
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtn (bbl)	Top Measurement Method	
1	5,086.0	7,664.0	25.0	Circulated	
Fluid		Amount (sacks)	Class	Density (lb/gal)	Yield (ft ³ /sack)
Lead		150 C		9.70	3.16
Tail		185 H		15.20	1.28
Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtn (bbl)	Top Measurement Method	
2	20.0	5,086.0	18.0	Circulated	
Fluid		Amount (sacks)	Class	Density (lb/gal)	Yield (ft ³ /sack)
Lead		600 C		12.60	1.97
Tail		100 C		14.80	1.33

