

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FEB 24 2010

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK Bureau of Land Management
Farmington Field Office

1a. Type of Work DRILL	5. Lease Number SF-078097 Unit Reporting Number NMNM-12/596	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator ConocoPhillips Company	7. Unit Agreement Name RCVD MAR 18 '10 OIL CONS. DIV. DIST. 3	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Heaton Com A 9. Well Number 100S	
4. Location of Well Surf: Unit C(NENW), 481' FNL & 1693' FWL Bottomhole: Unit C(NENW), 710' FNL & 1930' FWL Surf: Latitude: 36.8760545° N (NAD83) Longitude: 108.0349878° W Bottomhole: Latitude: 36.8754206° N (NAD83) Longitude: 108.0341891° W	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 30, T31N, R11W API # 30-045- 35109	
14. Distance in Miles from Nearest Town 4 miles / Aztec	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 481'		
16. Acres in Lease 2,475.610	17. Acres Assigned to Well 323.4 W/2 - FC	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 377' from Heaton A 1E (DK)		
19. Proposed Depth This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 2611'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 5920' GL	22. Approx. Date Work will Start DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u><i>Crystal Tafoya</i></u> Crystal Tafoya (Regulatory Tech)	Date <u>2/24/2010</u>	

PERMIT NO.

APPROVAL DATE

APPROVED BY *D. Montoya*

TITLE

**NOTIFY AZTEC OGD 24 HRS.
DATE 2/24/2010
PRIOR TO CASING & CEMENT**

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

Example Master Plan Type 2

Bond Numbers ES-0048 and ES-0085

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OTHER FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

MAR 19 2010

Hold C104

for Directional Survey
and "As Drilled" plat

NMOCDB

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

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr. FEB 24 2010
Santa Fe, N.M. 87505

Bureau of Land Management
Farmington Field Office

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35109	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 305236	⁵ Property Name HEATON COM A	⁶ Well Number 100S
⁷ GRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 5920

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	30	31 N	11 W		481	NORTH	1693	WEST	SAN JUAN

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	30	31 N	11 W		710	NORTH	1930	WEST	SAN JUAN

¹² Dedicated Acres 323.4 (W/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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 S 89°26'51" E 1693' 1930' LOT 1 S 45°13'43" E 328.36' WES OLIVER ET UX LOT 2 USA SF-078097 SECTION 30 NOTE: BEARINGS & DISTANCES SHOWN ARE REFERENCED TO THE NEW MEXICO COORDINATE SYSTEM, WEST ZONE, NAD 83. LOT 3 ADA L. FRITZ ET VIR LOT 4 N 89°21'24" W 2683.13' N 89°21'22" W 2648.62'	NAD 83 LAT: 36.8760545° N LONG: 108.0349878° W NAD 27 LAT: 36°52.56310' N LONG: 108°02.06177' W NAD 83 LAT: 36.8754206° N LONG: 108.0341891° W NAD 27 LAT: 36°52.52506' N LONG: 108°02.01385' W T. F. THURSTON ET UX	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>Tracey N. Monroe</i> 8/19/09 Signature Date Tracey N. Monroe Printed Name 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. 5/07/09 Date of Survey Signature and Seal of Professional Surveyor MARSHALL W. LINDEN NEW MEXICO 7-14-0 17078 LICENSED PROFESSIONAL SURVEYOR 17078 Certificate Number
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PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HEATON COM A 100S

DEVELOPMENT

Lease:		AFE #: WAN.CDR.9085		AFE \$: 916,009.40	
Field Name: SAN JUAN		Rig: XXX 2011 Holding Rig #1		State: NM	County: SAN JUAN
Geologist:		Phone:		Geophysicist:	
Geoscientist:		Phone:		Prod. Engineer:	
Res. Engineer:		Phone:		Proj. Field Lead:	

Primary Objective (Zones):

Zone	Zone Name
JCV	BASIN FRUITLAND COAL (GAS)

Location: Surface Datum Code: NAD 27 Directional

Latitude: 36.876052 Longitude: -108.034363 X: Y: Section: 30 Range: 011W

Footage X: 1693 FWL Footage Y: 481 FNL Elevation: 5920 (FT) Township: 031N

Tolerance:

Location: Bottom Hole Datum Code: NAD 27 Directional

Latitude: 36.875418 Longitude: -108.033564 X: Y: Section: 30 Range: 011W

Footage X: 1930 FWL Footage Y: 710 FNL Elevation: (FT) Township: 031N

Tolerance:

Location Type: Year Round Start Date (Est.): 1/1/2011 Completion Date: Date In Operation:

Formation Data: Assume KB = 5933 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	120	5813	☐			8-3/4 hole. 7" 20 ppf, J-55 STC csg. Cement with 50 cuft. Circulate cement to surface.
OJO ALAMO	839	5094	☐			
KIRTLAND	927	5006	☐			
FRUITLAND	1824	4109	☐			Gas
PICTURED CLIFFS	2411	3522	☐	90		Gas
Total Depth	2611	3322	☐			6-1/4" hole. 4-1/2" 11.6 ppf, J-55, LTC casing. Cement with 355 cuft. Circulate cement to surface.

Reference Wells:

Reference Type	Well Name	Comments
Production	HEATON LS 24	

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other
gr/cbl

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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Comments:

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton Com A #100S
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 5935 0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 5935 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Heaton Com A #100S	Survey Calculation Method:	Minimum Curvature
Wellbore:	Principle Wellbore		
Design:	Plan #1		

Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
- Shape		(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	
Heaton Com A #100S-P	- plan hits target center	0.00	0 00	2,611.0	-230.8	233.6	2,137,976.12	441,434.26	36° 52' 31.504 N
- Point									108° 2' 0.831 W
Heaton Com A #100S-21	- plan hits target center	0 00	0 00	2,000.0	-230.8	233.6	2,137,976.12	441,434.26	36° 52' 31.504 N
- Point									108° 2' 0.831 W

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)	Name		(")	(")
120.0	120.0	7"		7	8-3/4
2,651.4	2,611.0	4 1/2"		4-1/2	6-1/4

Formations						
Measured Depth	Vertical Depth			Dip	Dip Direction	
(ft)	(ft)	Name		(°)	(°)	
933.5	927.0	Kirtland		0.00		
1,864.2	1,824.0	Fruitland		0.00		
843.2	839.0	Ojo Alamo		0.00		
2,451.4	2,411.0	Picture Cliffs		0.00		

REFERENCE INFORMATION

RKB @ 5935.0ft (Original Well Elev)
Ground Elevation 5920.0
Reference Lat: 36° 52' 33.786 N
Reference Long: 108° 2' 3.706 W

Project: San Juan Basin - New Mexico Wells

Site: Other Named Wells

Well: Heaton Com A #100S

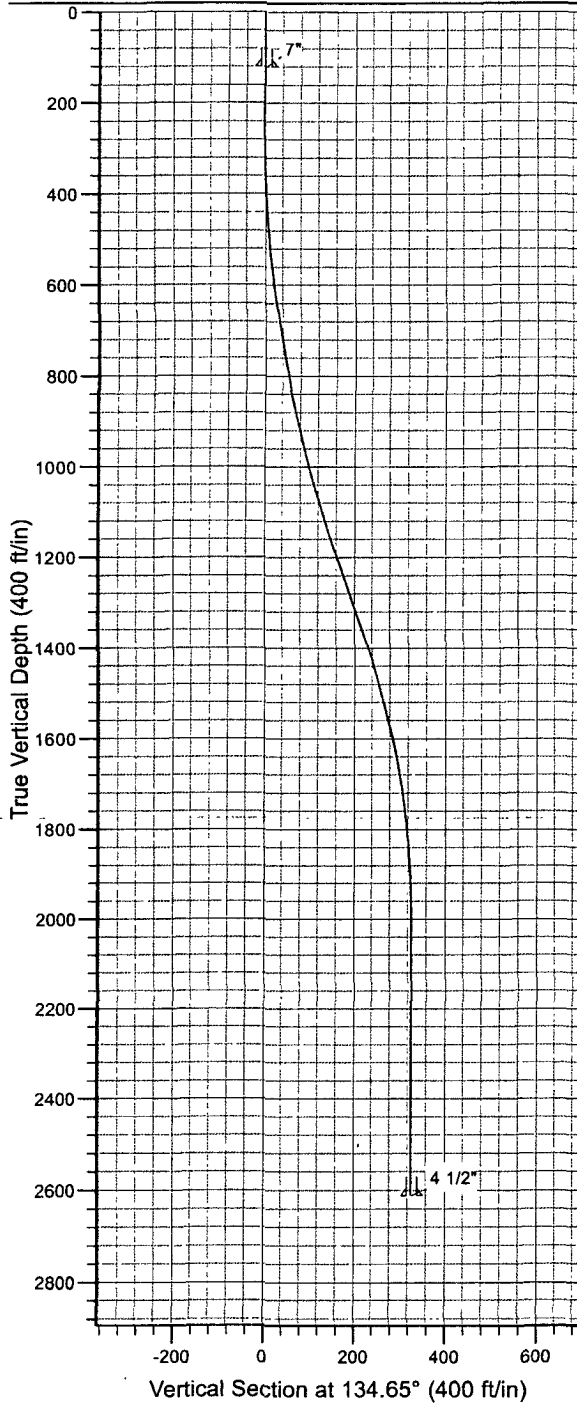
Wellbore: Principle Wellbore

Design: Plan #1



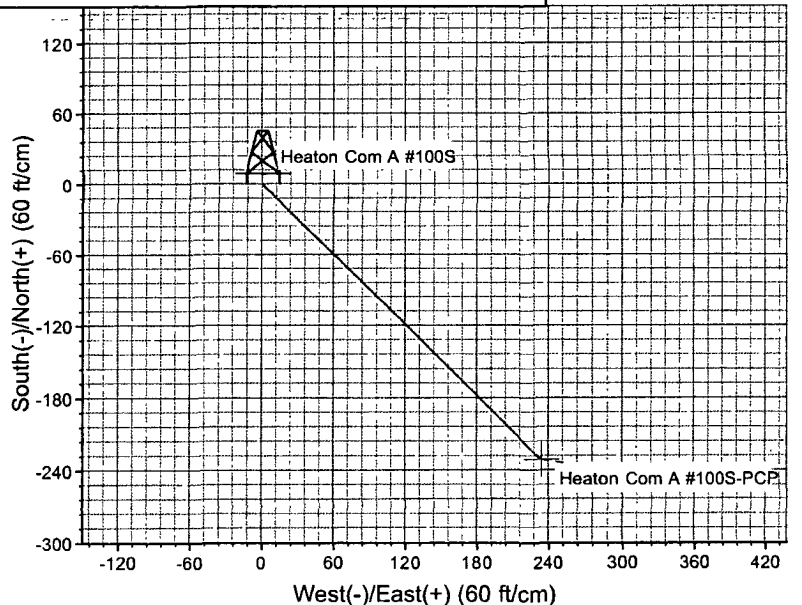
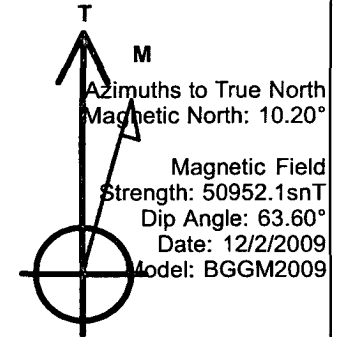
SECTION DETAILS

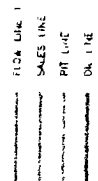
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	
3	1212.8	19.26	134.65	1194.8	-112.6	114.0	2.00	134.65	160.3	
4	1398.6	19.26	134.65	1370.2	-155.7	157.6	0.00	0.00	221.5	
5	2040.4	0.00	0.00	2000.0	-230.8	233.6	3.00	180.00	328.4	Heaton Com A #100S-2000'TVD
6	2651.4	0.00	0.00	2611.0	-230.8	233.6	0.00	0.00	328.4	Heaton Com A #100S-PCP



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
839.0	843.2	Ojo Alamo
927.0	933.5	Kirtland
1824.0	1864.2	Fruitland
2411.0	2451.4	Picture Cliffs





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[illegible]

CONOCOPHILLIPS COMPANY

HEATON COM A 100S

481' FNL & 1693' FWL (SURFACE LOCATION)

710' FNL & 1930' FWL (BOTTOM HOLE LOCATION)

LATITUDE: 36.8760545° N

LONGITUDE: 108.0349878° W

NAD 83

SECTION 30, T-31-N, R-11-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

FROM THE INTERSECTION OF N.M. HIGHWAY 516 AND

NORTH LIGHT PLANT ROAD IN AZTEC, NEW MEXICO.

TRAVEL NORTHERLY 3.7 MILES ON NORTH LIGHT PLANT ROAD.

TURN RIGHT ONTO NCM 3093 AND TRAVEL NORTHEASTERLY 0.3 MILE

UNTIL REACHING PROPOSED ACCESS ROUTE TO

HEATON COM A 100S WELL LOCATION.