

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK



2007 MAR 16 PM 3:33

RECEIVED
BLM
210 FARMINGTON NM

1a. Type of Work DRILL	5. Lease Number SF-079294 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator ConocoPhillips	7. Unit Agreement Name San Juan 28-7 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name 9. Well Number #221G
4. Location of Well Surf: Unit J (NWSE), 2020' FSL & 1790' FEL, BH: Unit H (SENE), 2500' FNL & 660' FEL Surf: Latitude 36° 37.8366 N Longitude 107° 31.2832 W BH: Latitude 36° 37.9600 N Longitude 107° 31.0520 W	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) J Sec. 25, T28N, R7W API # 30-039-30228
14. Distance in Miles from Nearest Town 22 miles/Blanco	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 660'	
16. Acres in Lease	17. Acres Assigned to Well DK & MV - 320 - (E/2)
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease	
19. Proposed Depth 7628'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6208' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Rhonda Rogers</u> Rhonda Rogers (Regulatory Technician)	3-15-07 Date

HOLD 0104 FOR directional survey / BA survey

PERMIT NO. APPROVAL DATE
APPROVED BY [Signature] TITLE APM DATE 3/27/07

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 3
NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

3/30/07

NMOCDB

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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

2007 MAR 16
RECEIVED
210 EAST
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039- 30228	*Pool Code 72319 / 71599	*Pool Name BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 31739	*Property Name SAN JUAN 28-7 UNIT	*Well Number 221G
*OGRIID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY	*Elevation 6208'

10 Surface Location

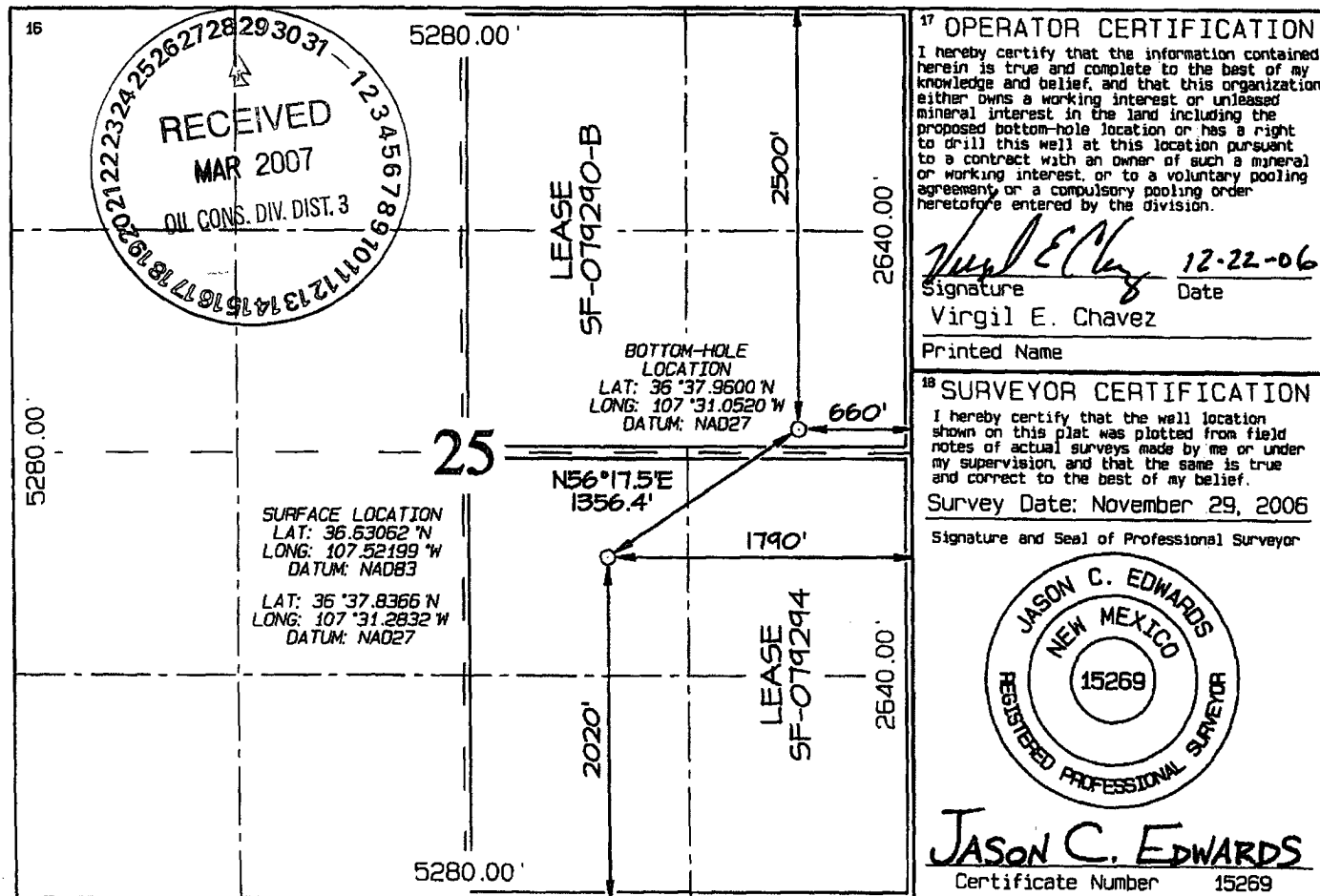
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	25	28N	7W		2020	SOUTH	1790	EAST	RIO ARriba

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
H	25	28N	7W		2500	NORTH	660	EAST	RIO ARriba

12 Dedicated Acres 320.0 Acres - (E/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



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Energy, Minerals and Natural Resources

May 27, 2004

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.

30-039- **30228**

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

SF-079294

7. Lease Name or Unit Agreement Name

San Juan 28-7 Unit

8. Well Number

#221G

9. OGRID Number

217817

10. Pool name or Wildcat

Blanco Mesaverde/Basin Dakota

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐

Gas Well ☒

Other

2. Name of Operator

ConocoPhillips Company

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter J

: 2020'

feet from the

South

line and

1790'

feet from the

East

line

Section 25

Township

28N

Rng

7W

NMPM

County

Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

6208'

Pit or Below-grade Tank Application

☐ or Closure ☐

Pit type

New Drill

Depth to Groundwater

<50'

Distance from nearest fresh water well

>1000'

Distance from nearest surface water

>200'

<1000'

Pit Liner Thickness:

12

mil

Below-Grade Tank:

Volume

bbls;

Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

TEMPORARILY ABANDON ☐

PULL OR ALTER CASING ☐

PLUG AND ABANDON ☐

CHANGE PLANS ☐

MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

COMMENCE DRILLING OPNS. ☐

CASING/CEMENT JOB ☐

ALTERING CASING ☐

P AND A ☐

OTHER:

New Drill

☒

OTHER:

☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

New Drill, Lined:

ConocoPhillips proposes to construct a new drilling pit, an associated vent/flare pit and a pre-set mud pit (if required). Based on ConocoPhillips' interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and pre-set mud pit will be lined pits as detailed in ConocoPhillips' General Plan dated June 2005 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be lined as per the risk ranking criteria. ConocoPhillips anticipates closing these pits according to the November 1, 2004 Guidelines.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

Kandis Roland

TITLE

Regulatory Technician

DATE

2/27/2007

Type or print name

Kandis Roland

E-mail address:

kburns@brc-inc.com

Telephone No.

505-326-9597

For State Use Only

APPROVED BY

[Signature]

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. 2

DATE

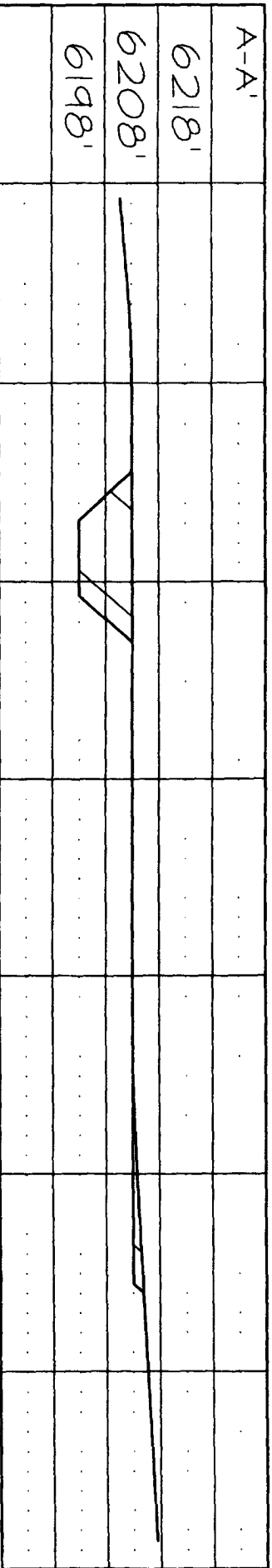
MAR 30 2007

Conditions of Approval (if any):

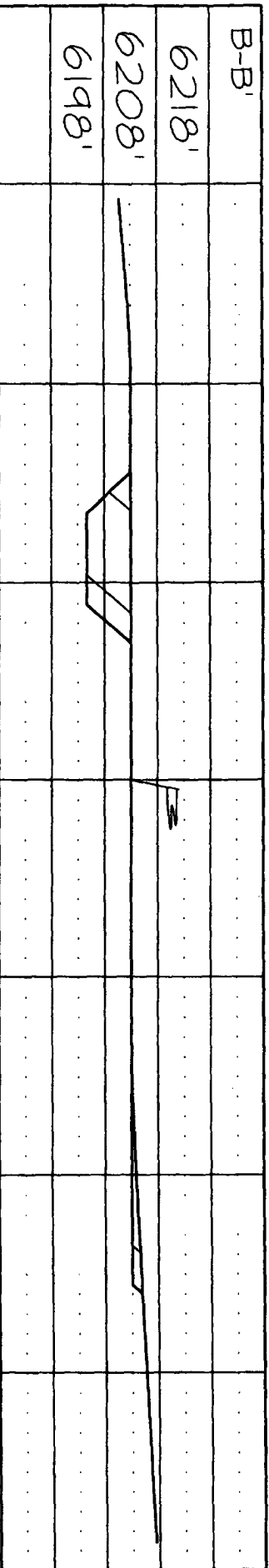
CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

CONOCOPHILLIPS COMPANY SAN JUAN 28-7 UNIT #221G
 2020' FSL & 1790' FEL, SECTION 25, T28N, R7W, NMPM
 RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6208'

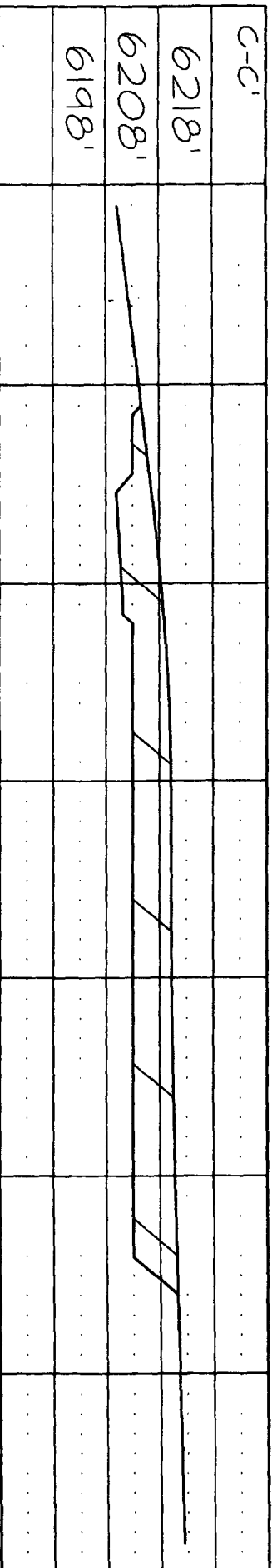
HORIZONTAL SCALE 1"=40' C/L VERTICAL SCALE 1"=30'



C/L



C/L



NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

SJ 28-7 Unit #221G OPERATIONS PLAN

Well Name: SJ 28-7 Unit #221G

Objective: Mesa Verde/Dakota

Location: Rio Arriba NM

Elevation: 6208'

Surface Coordinates/Footages

T - 28 N R - 7 W Sec.: 25
 2020' FSL 1790' FEL
 Latitude: 36° 37.8366' N
 Longitude: 107° 31.2832' W

Bottom Hole Coordinates/Footages

T - 28 N R - 7 W Sec.: 25
 2500' FNL 660' FEL
 Latitude: 36° 37.9600' N
 Longitude: 107° 31.0520' W

<u>Formation</u>	<u>Top (TMD)</u>	<u>Top (TVD)</u>	<u>Contents</u>
San Jose	0	0	
Nacimiento	837'	828'	
Ojo Alamo	2242'	2119'	aquifer
Kirtland	2352'	2220'	
Fruitland	2877'	2702'	gas
Pictured Cliffs	3100'	2907'	
Lewis	3185'	2985'	
Chacra	4113'	3850'	
Massive Cliff House	4803'	4538'	gas
Menefee	4927'	4662'	gas
Massive Point Lookout	5395'	5130'	gas
Gallup	6580'	6315'	gas
Greenhorn	7318'	7053'	gas
Graneros	7378'	7113'	
Two Wells	7411'	7146'	gas
Paguate	7513'	7248'	gas
Cubero	7543'	7278'	gas
Lower Cubero	7547'	7282'	
Total Depth:	7628'	7363'	gas

Logging Program: Cased Hole: CBL-GR
 Open Hole: None

<u>Mud Program:</u>	<u>Interval (TMD)</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Vis. (s/qt)</u>	<u>Fluid Loss (cc/30min)</u>
	0' - 220'	Spud	8.4-9.0	40-50	No control
	220' - 4365'	Non-dispersed	8.4-9.0	30-60	Less than 8
	4365' - 7628'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

<u>Casing program:</u>	<u>Interval (TMD)</u>	<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>
	0' - 220'	12 1/4"	9 5/8"	32.3#	H-40
	220' - 4365'	8 3/4"	7"	23.0#	L-80
	4365' - 7628'	6 1/4"	4 1/2"	11.6#	L-80

<u>Tubing program:</u>	<u>Interval (TMD)</u>	<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>
	0' - 7628'	Cased	2 3/8"	4.7#	J-55

Wellhead Equipment

9 5/8" x 7" X 4 1/2" x 2 3/8" - 11" (2000 psi) wellhead assembly

Drilling: Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

Surface

Drill to surface casing point of 220' and set 9.625" casing.

Intermediate

Mud drill to kick off point of 400'. At this point the well will be directionally drilled by building 4 degrees per 100' with an azimuth of 56.06 degrees. The end of the build will be at a TVD of 917', a TMD of 933', a reach of 117', and an inclination of 23.31 degrees. This angle and azimuth will be held to a TVD of 3533', a TMD of 3782', and a reach of 1245'. At this point the well will be drilled with a drop of 4 degrees per 100'. The end of the drop will be at a TVD of 4100', a TMD of 4365', a reach of 1361.4', and an angle of 0.0 degrees. 7" casing will be set at this point.

Production

From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TVD of 7363' (TMD of 7628'). 4.5" casing will be set at this point.

Cementing

9.625" surface casing conventionally drilled: **200%** excess cement to bring cement to surface.

Run 207 cu.ft. (162 sks) Type III cement with 3% CaCl₂ and 1/4 pps celloflake (1.28 sks/ cu.ft.). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° F prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

7" intermediate casing: **50%** excess cement to bring cement to surface.

Lead with 861 cu.ft. (404 sks) Premium Lite w/ 3% CaCl₂, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft³). Tail with 124 ft³ (90 sks) Type III cmt. w/ 1% CaCl₂, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft³). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4.5" production casing: **30%** excess cement to achieve 100' overlap with intermediate casing.

Run 447 cu.ft. (226 sks) Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft³.)

BOP and Tests

Surface to Total Depth – 11", 2000 psi double gate BOP stack (Reference Figure #1).

Surface to Total Depth – choke manifold (Reference Figure #2).

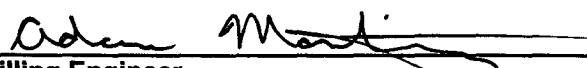
Prior to drilling out surface casing, test BOPE and casing to 600 psi for 30 minutes.

Pipe rams will be actuated at least once each day and blind rams will be actuated once each trip to test proper functioning. A Kelly cock valve and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

Additional Information:

- No gas dedication.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2100 psi.


Drilling Engineer

3/14/2007
Date

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 221G

DEVELOPMENT

Lease:		AFE #: WAN.CNV.7169		AFE \$:	
Field Name: 28-7		Rig: XX 2008 28N (2)		State: NM	County: RIO ARRIBA
Geoscientist: Pippin, Eddie A		Phone: 505-326-9780		Prod. Engineer: Fontenot, Jessie C	
Res. Engineer: Johnson, Tom B.		Phone: (832)-486-2347		Proj. Field Lead: Fransen, Eric E.	
				Phone:	

Primary Objective (Zones):

Zone	Zone Name
R20002	MESAVERDE(R20002)
R20076	DAKOTA(R20076)

Location: Surface		Datum Code: NAD 27		Deviated	
Latitude: 36.633232	Longitude: -107.520624	X: 591752.00	Y: 2049897.00	Section: 25	Range: 007W
Footage X: 1565 FEL	Footage Y: 2295 FSL	Elevation: 6214	(FT)	Township: 028N	

Tolerance:

Location: Bottom Hole		Datum Code: NAD 27		Deviated	
Latitude: 36.632530	Longitude: -107.517533	X: 592661.00	Y: 2049645.00	Section: 25	Range: 007W
Footage X: 660 FEL	Footage Y: 2500 FNL	Elevation:	(FT)	Township: 028N	

Tolerance:

Location Type: Year Round	Start Date (Est.):	Completion Date:	Date In Operation:
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Formation Data: Assume KB = 6228 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	220	6008	<input type="checkbox"/>			
NCMT	828	5400	<input type="checkbox"/>			
OJAM	2119	4109	<input type="checkbox"/>			Possible water flows.
KRLD	2220	4008	<input type="checkbox"/>			
FRLD	2702	3526	<input type="checkbox"/>			Possible gas.
PCCF	2907	3321	<input type="checkbox"/>			
LEWS	2985	3243	<input type="checkbox"/>			
CHRA	3850	2378	<input type="checkbox"/>			
Intermediate Casing	4100	3143	<input type="checkbox"/>			
UCLFH	4454	1774	<input type="checkbox"/>			
CLFH	4538	1690	<input type="checkbox"/>			Gas; possibly wet
MENF	4662	1566	<input type="checkbox"/>			Gas.
PTLK	5130	1098	<input type="checkbox"/>			Gas.
MNCS	5538	690	<input type="checkbox"/>			
UPPER GLLP	6315	-87	<input type="checkbox"/>			Gas. Possibly wet.
GRHN	7053	-825	<input type="checkbox"/>			4 1/2", 10.5 ppf, J-55, STC casing. Circulate cement a minimum of 100' inside the previous casing string. No open hole logs. Cased hole TDT with GR to surface.
GRRS	7113	-885	<input type="checkbox"/>			
TWLS	7146	-918	<input type="checkbox"/>			Gas
PAGU	7248	-1020	<input type="checkbox"/>			Gas. Highly Fractured.
CBBO	7278	-1050	<input type="checkbox"/>			Gas
CBRL	7282	-1054	<input type="checkbox"/>			
Total Depth	7363	-1135	<input type="checkbox"/>	2100		

Reference Wells:

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 28-7 UNIT 221G

DEVELOPMENT

Reference Type	Well Name	Comments
Intermediate	SJ 28-7 221M	25-28N-7W-SE, KB = 6225
Intermediate	SJ 28-7 221	25-28N-7W-NE, KB = 6230

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: Location/Tops/Logging - Reach = 930.8', Azimuth = 108 degrees, TD is 310' below GRHN --- for DK offset logs see hardcopy packet

Zones - MVRD is plugged in the #19 - #'s 221 & 221G will be the two MVRD completions in the NE/4.

1) Try to get the surface locaiton as requested - will need ~1,400' of access, branching off the lease road running through the w/2 of Section 30-T28N-R6W - directional kick would be ~400' to the north to get inth Unit Ltr. H. 2) Move surface location to ~2,250' FNL & 1,600' FEL - directional kick would be ~950' to the ESE. MVNM028N007W25NE2 AND

General/Work Description - Moved from 2007 to 2008 due to 2007 Capex program adjustments 3/15/07 - LM
MAKE SURE COST REFLECT A DIRECTIONAL DRILL. 80/80 Kd/Kmv Directional