OCD-ARTESIA

Form 3160-3
(February 2005)

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **NMNM-112268**

6 If Indian, Allotee or Tribe Name

7 If Unit or CA Agreement, Name and No

1a. Type of work. ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. **Habanero 17 Federal 2H** (36998)

2. Name of Operator **Devon Energy Production Co., LP** (6137)

9. API Well No. 30-015-39377

3a. Address **20 North Broadway, OKC, OK 73102**

3b. Phone No. *(include area code)* **(405)-552-7802**

10. Field and Pool, or Exploratory **Black River; Wolfcamp (GAS)** (72240)

4. Location of Well *(Report location clearly and in accordance with any State requirements *)*
At surface **NESE 1500' FSL & 355' FEL Lot I**
At proposed prod. zone **NWSW 1500' FSL & 660' FWL Lot L**

11. Sec., T. R. M. or Blk. and Survey or Area **Sec 17 T24S-R27E**

14. Distance in miles and direction from nearest town or post office*
Approximately 8 miles southwest of Loving, NM.

12 County or Parish **Eddy** | 13 State **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17 Spacing Unit dedicated to this well
355'	2026.37	320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
1185'	TD 10550' MD 14613'	CO-1104
21. Elevations (Show whether DF, KDB, RT, GL, etc)	**22. Approximate date work will start***	**23. Estimated duration**
3245' GL	05/01/2011	45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
	Stephanie A. Ysasaga	03/31/2011

Title: **Sr. Staff Engineering Technician**

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson	/s/ Don Peterson	AUG 24 2011
Title FIELD MANAGER	**Office** CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

*(Instructions on page 2)

Carlsbad Controlled Water Basin

RECEIVED
AUG 29 2011
NMOCD ARTESIA

Witness Surface & Intermediate Casing

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

DRILLING PROGRAM

Devon Energy Production Company, LP
Habanero 17 Federal 2H
Surface Location: 1500' FSL & 355' FEL, Unit I, Sec 17 T24S R27E, Eddy, NM
Bottom hole Location: 1500' FSL & 660' FWL, Unit L, Sec 17 T24S R27E, Eddy, NM

1. Geologic Name of Surface Formation

a. Permian

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a.	Alluvium		Surface
b.	Depth to Groundwater	17'	Fresh Water
c.	Rustler Dolomite	225'	Barren
d.	Salado Salt	541'	Barren
e.	Castile	660'	Barren
f.	Base of Salt	2142'	Barren
g.	Bell Canyon	2252'	Barren
h.	Cherry Canyon	3012'	Barren
i.	Brushy Canyon	4094'	Oil
j.	1st Bone Spring Lime	5608'	Oil
k.	1st Bone Spring Ss	6623'	Oil
l.	2nd Bone Spring Lime	6869'	Oil
m.	2nd Bone Spring Ss	7231'	Oil
n.	3rd Bone Spring Lime	7433'	Oil
o.	3rd Bone Springs Ss	8554'	Oil
p.	Wolfcamp	8870'	Gas/Oil
q.	Wolfcamp Shale	9382'	Gas/Oil
r.	Total Depth	TVD 10550' MD 14613'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at ~~260'~~ and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at ~~3100~~' and circulating cement to surface. The Delaware/Bone Springs intervals will be isolated by setting 7" casing to total depth and circulating cement above the base of the 4 1/2" casing. All casing is new and API approved.

3. Casing Program:

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17 1/2"	0'-260'~~520~~	13 3/8"	0'-260'	48#	STC	H-40
12 ¼"	260'-~~3100~~'~~2205~~	9 5/8"	0'-3100'	40#	BTC	J-55
8 ¾"	3100'–8900'	7"	0'-8900'	26#	BTC	ECP-110
6 1/8"	8900'- 14613'	4 1/2"	0-14613'	11.6#	BTC	ECP-110

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13 3/8"	6.6	14.8	26.8
9 5/8"	1.6	2.4	4.2
7"	1.7	2.4	2.7
4 1/2"	1.4	1.7	2.5

4. **Cement Program: (Note: All cement volumes are calculated with 25% excesses.)**

a. 13 3/8" Surface

See COA

Lead: 290 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 8.34 ppg. **Yield:** 1.35 cf/sk. **TOC @ surface.**

b. 9 5/8" Intermediate

Lead: 835 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water, 8.34 ppg. **Yield**: 2.04 cf/sk

Tail: 300 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Fresh Water. Yield: 1.37 cf/sack.

See COA

7" Intermediate

1st Stage

Lead: 505 sacks 35/65 Poz + 0.35% bwoc R-3 + 0.4% bwoc CD-32 + 1.4% bwoc FL-62 + 0.1% bwoc ASA-301 + 0.2% bwoc Sodium Metasilicate + 20 lbs/sack ASCA-1 + 52.9% Fresh Water. Yield: 1.95 cf/sack.

Tail: 275 sacks Super C + 0.1% bwoc ASA-301 + 0.2% bwoc Sodium Metasilicate + 20 lbs/sack ASCA-1 + 52. Yield: 1.56

Stage Collar/DV Tool set at 4200'

2nd Stage

Lead: 135 sacks (35:65) Poz (Fly Ash):Premium Plus C Cement + 1% bwow Sodium Chloride + 0.4% bwoc R-3 + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 103.1% Fresh Water. Yield: 2.04 cf/sack.

Tail: 100 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 1% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.75% bwoc BA-10A + 4% bwoc MPA-5 + 63.1% Fresh Water
Yield: 1.38 cf/sk

4 1/2" Liner	685 sacks (50:50) Poz (Fly Ash):Class H Cement + 1% bwow Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 103.2% FW Yield: 1.26 cuft/sk

TOC for All Strings:

Surface:	0'
Intermediate:	0'
Production:	~~2,600'~~ 1705
Liner:	8,400'

The above cement volumes could be revised pending the caliper measurement from the open hole logs. Actual cement volumes will be adjusted bases on fluid caliper and caliper log data.

5. Pressure Control Equipment:

BOP DESIGN: A 2M Annular BOP will be installed on the 13 3/8" surface casing and utilized continuously until the first intermediate depth of ~3100' is drilled. A 5M psi double ram type and 5M psi annular type and a rotating head will be installed on the 9 5/8" casing. All units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. All BOP's will be tested with independent testers before drilling out the associated casing shoes. Prior to drilling out the 9 5/8" casing shoe, the BOP's and Hydril will be tested as per BLM Drilling Operations Order #2.

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating.

A flexible line with flanged ends may be used between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

6. Proposed Mud Circulation System

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – ~~260'~~ 520	8.4-8.8	32-34	NC	Fresh Water
~~260'~~ – ~~3100'~~ 2205	9.7-10.0	28-30	NC	Brine
3100'–9800'	9.0-9.3	28-30	NC-40	Fresh Water
9800'-14200'	10.5-12.5	32-40		Oil Base

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

a. A Kelly cock will be in the drill string at all times.
b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 4 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

8. **Logging, Coring, and Testing Program:** See COA
   a. Drill stem tests will be based on geological sample shows.
   b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
   c. The open hole electrical logging program will be:
      i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
      ii. Total Depth to Surface Compensated Neutron with Gamma Ray
      iii. No coring program is planned
      iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. **Potential Hazards:**
   a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 6200 psi and Estimated BHT 198°. No H2S is anticipated to be encountered.

10. **Anticipated Starting Date and Duration of Operations:**
    a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

11. **Depending on rig availability, Devon may set the surface casing using an Ashton Oilfield Services rig.**
    a. The rig plat is attached (if applicable). This rig will be used only to set the surface casing and will leave the location once the surface casing has been run and cemented. Another rig will drill the remainder of the wellbore. The reasons for using the smaller rig to set surface are: rig availability and economics.

    b. The BLM will be contacted 24 hours prior to commencing drilling operations. The surface casing will be run and cemented back to surface as per the approved APD. The well will be secured with a cap welded onto the surface casing. Another rig will be on location to drill the remainder of the wellbore within 60 days after the Ashton rig has left the location.

devon

Devon Energy

Eddy Co., New Mexico (Nad 83)
Habanero 17 Fed #2H
Habanero 17 Fed #2H

Lateral #1

Plan: Design #1

Standard Survey Report

17 November, 2010

CUDD
DRILLING & MEASUREMENT
SERVICES

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Habanero 17 Fed #2H
Project:	Eddy Co , New Mexico (Nad 83)	**TVD Reference:**	WELL @ 3270.00ft (Original Well Elev)
Site:	Habanero 17 Fed #2H	**MD Reference:**	WELL @ 3270.00ft (Original Well Elev)
Well:	Habanero 17 Fed #2H	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 2003 21 Single User Db

Project Eddy Co , New Mexico (Nad 83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Habanero 17 Fed #2H, Sec 17, T-24S, R-27E

Site Position:		**Northing:**	441,641.00 ft	**Latitude:**	32° 12' 50 698 N
From:	Map	**Easting:**	580,968 10 ft	**Longitude:**	104° 12' 18 681 W
Position Uncertainty:	0 00 ft	**Slot Radius:**	"	**Grid Convergence:**	0 07 °

Well Habanero 17 Fed #2H

Well Position	**+N/-S**	0 00 ft	**Northing:**	441,641 00 ft	**Latitude:**	32° 12' 50 698 N
	+E/-W	0 00 ft	**Easting:**	580,968.10 ft	**Longitude:**	104° 12' 18 681 W
Position Uncertainty		0 00 ft	**Wellhead Elevation:**	3,270 00 ft	**Ground Level:**	3,245 00 ft

Wellbore Lateral #1

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	11/17/10	7 93	60 10	48,633

Design Design #1

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0 00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0 00	0 00	0 00	270.05

Survey Tool Program **Date** 11/17/10

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0 00	9,900.00	Design #1 (Lateral #1)	NS-GYRO-MS	North sensing gyrocompassing m/s
9,900 00	14,613.34	Design #1 (Lateral #1)	CUDD MWD	MWD - Standard CUDD MWD

Planned Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Vertical Section (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
0 00	0 00	0 00	0.00	0.00	0 00	0 00	0.00	0.00	0.00
225 00	0.00	0 00	225 00	0.00	0 00	0 00	0 00	0 00	0.00
Rustler									
541.00	0.00	0 00	541 00	0 00	0.00	0 00	0 00	0 00	0 00
Salado									
660.00	0 00	0 00	660 00	0 00	0 00	0.00	0.00	0.00	0 00
Castile									
2,252.00	0 00	0 00	2,252.00	0.00	0 00	0.00	0.00	0.00	0 00
Bell Canyon									
3,012 00	0.00	0 00	3,012.00	0 00	0 00	0.00	0 00	0.00	0 00
Cherry Canyon									

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Habanero 17 Fed #2H
Project:	Eddy Co., New Mexico (Nad 83)	**TVD Reference:**	WELL @ 3270.00ft (Original Well Elev)
Site:	Habanero 17 Fed #2H	**MD Reference:**	WELL @ 3270 00ft (Original Well Elev)
Well:	Habanero 17 Fed #2H	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 2003.21 Single User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,094 00	0.00	0.00	4,094 00	0 00	0 00	0.00	0.00	0 00	0 00
Brushy Canyon									
5,644 00	0.00	0.00	5,644.00	0 00	0 00	0 00	0 00	0 00	0.00
1st BS Lm									
6,672.00	0 00	0 00	6,672.00	0.00	0.00	0 00	0 00	0 00	0.00
1st BS Ss									
6,869.00	0 00	0.00	6,869.00	0 00	0 00	0 00	0 00	0 00	0 00
2nd BS Lm									
7,231.00	0 00	0.00	7,231.00	0 00	0 00	0 00	0 00	0 00	0.00
2nd BS Ss									
7,465 00	0.00	0 00	7,465.00	0.00	0.00	0 00	0.00	0 00	0.00
3rd BS Lm									
8,504.00	0 00	0.00	8,504.00	0 00	0 00	0 00	0.00	0 00	0 00
3rd BS Ss									
8,821 00	0 00	0.00	8,821 00	0 00	0 00	0.00	0 00	0 00	0 00
Wolfcamp									
10,072 53	0.00	0 00	10,072 53	0 00	0 00	0 00	0 00	0 00	0 00
KOP - Build 12.0°/100'									
10,555.02	57 90	270.05	10,477.00	0 18	-223 73	223 73	12 00	12 00	0.00
Wolfcamp Shale									
10,822 54	90 00	270 05	10,550.00	0 39	-477 47	477.47	12 00	12.00	0 00
EOC - Hold I:90° @ A:270.05°									
14,613.34	90 00	270 05	10,550.00	3.49	-4,268 27	4,268 27	0 00	0 00	0.00
PBHL - TD (H17F#2H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL - TD (H17F#2H) - plan hits target center - Point	0 00	0 00	10,550 00	3.49	-4,268 27	441,644 49	576,699.84	32° 12' 50 781 N	104° 13' 8.365 W

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Habanero 17 Fed #2H
Project:	Eddy Co , New Mexico (Nad 83)	**TVD Reference:**	WELL @ 3270 00ft (Original Well Elev)
Site:	Habanero 17 Fed #2H	**MD Reference:**	WELL @ 3270.00ft (Original Well Elev)
Well:	Habanero 17 Fed #2H	**North Reference:**	Grid
Wellbore:	Lateral #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 2003.21 Single User Db

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
225 00	225 00	Rustler		0.00	
541.00	541 00	Salado		0 00	
660 00	660 00	Castile		0.00	
2,252 00	2,252 00	Bell Canyon		0 00	
3,012 00	3,012 00	Cherry Canyon		0 00	
4,094 00	4,094 00	Brushy Canyon		0 00	
5,644.00	5,644 00	1st BS Lm		0 00	
6,672.00	6,672.00	1st BS Ss		0.00	
6,869 00	6,869 00	2nd BS Lm		0.00	
7,231 00	7,231 00	2nd BS Ss		0.00	
7,465 00	7,465 00	3rd BS Lm		0 00	
8,504 00	8,504 00	3rd BS Ss		0.00	
8,821 00	8,821 00	Wolfcamp		0 00	
10,555 02	10,477 00	Wolfcamp Shale		0 00	
	10,839 00	Strawn		0 00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
10,072 53	10,072 53	0 00	0.00	KOP - Build 12.0°/100'
10,822 54	10,550 00	0.39	-477 47	EOC - Hold 1.90° @ A 270 05°

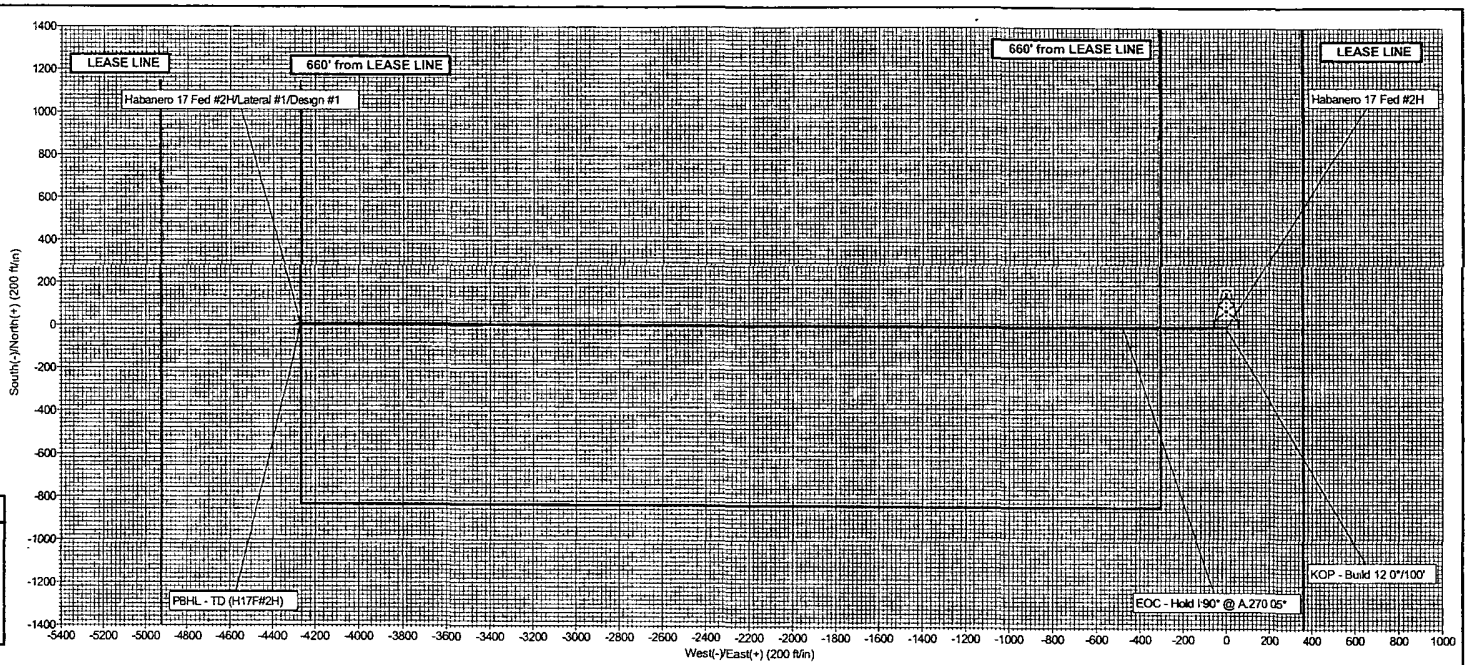
Checked By: _____ Approved By: _____ Date: _____

devon

Project Eddy Co , New Mexico (Nad 83)
Site Habanero 17 Fed #2H
Well Habanero 17 Fed #2H
Wellbore Lateral #1
Design Design #1

CUDD
DRILLING & MEASUREMENT SERVICES

Plan: Design #1 (Habanero 17 Fed #2H/Lateral #1)			
Created By: Mike Starkey		Date: 18:11, November 17 2010	
Checked		Date	
Reviewed.		Date	
Approved		Date	



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2	10072 53	0 00	0 00	10072 53	0 00	0 00	0 00	0 00	0 00	
3	10822 54	90 00	270 05	10550 00	0 39	-477 47	12 00	270 05	477 47	
4	14613 34	90 00	270 05	10550 00	3 49	-4268 27	0 00	0 00	4268 27	PBHL - TD (H17F#2H)

ANNOTATIONS

TVD	MD	Annotation
10072 53	10072 53	KOP - Build 12 0°/100'
10550 00	10822 54	EOC - Hold I 90° @ A 270 05°

PROJECT DETAILS Eddy Co , New Mexico (Nad 83)

Geodetic System	US State Plane 1983
Datum	North American Datum 1983
Ellipsoid	GRS 1980
Zone	New Mexico Eastern Zone
System Datum	Mean Sea Level

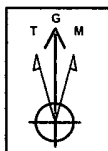
WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - TD (H17F#2H)	10550 00	3 49	-4268 27	441644 49	576699 84	32° 12' 50 781 N	104° 13' 8 365 W	Point

WELL DETAILS Habanero 17 Fed #2H

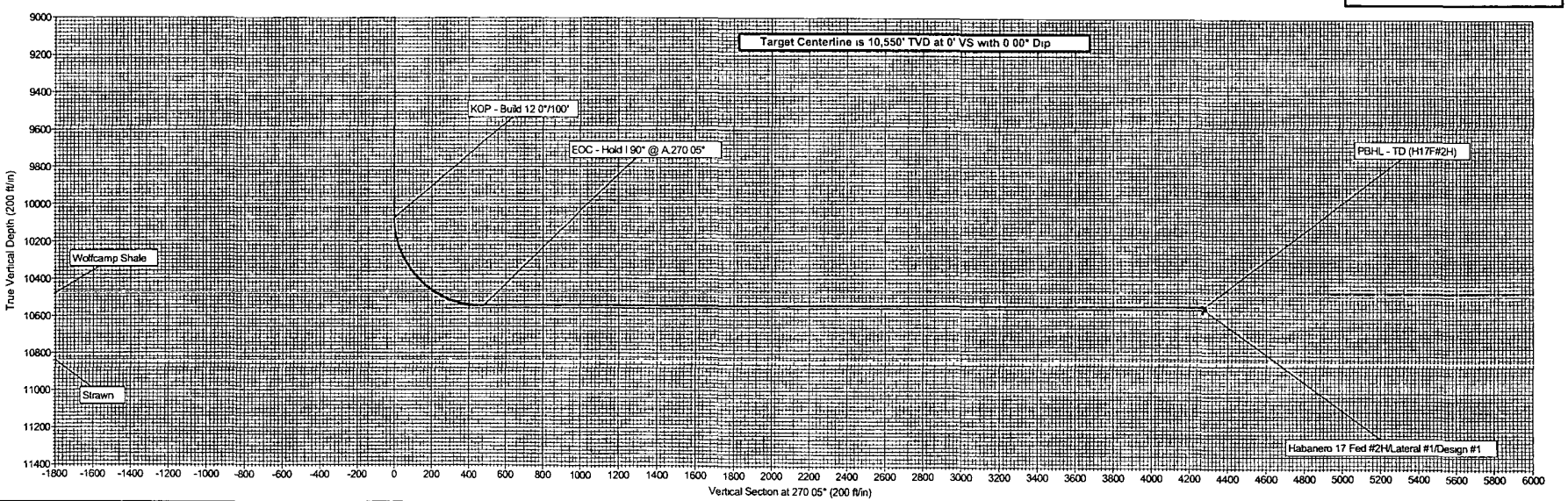
Ground Level
3245 00
WELL @ 3270 00ft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 00	0 00	441641 00	580968 10	32° 12' 50 698 N	104° 12' 18 681 W	



Azimuths to Grid North
True North -0 07°
Magnetic North 7 86°

Magnetic Field
Strength 48632 7snT
Dip Angle 60 10°
Date 11/17/2010
Model IGRF200510



Devon Energy
Habanero 17 Fed #2H - Design #1

Eddy Co., New Mexico (Nad 83)
Habanero 17 Fed #2H

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00
10072.53	0.00	0.00	10072.53	0.00 N	0.00 E	0.00	0.00
10100.00	3.30	270.05	10099.98	0.00 N	0.79 W	0.79	12.00
10200.00	15.30	270.05	10198.49	0.01 N	16.91 W	16.91	12.00
10300.00	27.30	270.05	10291.49	0.04 N	53.17 W	53.17	12.00
10400.00	39.30	270.05	10374.92	0.09 N	107.96 W	107.96	12.00
10500.00	51.30	270.05	10445.14	0.15 N	178.91 W	178.91	12.00
10600.00	63.30	270.05	10499.07	0.22 N	262.90 W	262.90	12.00
10700.00	75.30	270.05	10534.36	0.29 N	356.27 W	356.27	12.00
10800.00	87.30	270.05	10549.47	0.37 N	454.94 W	454.94	12.00
10822.54	90.00	270.05	10550.00	0.39 N	477.47 W	477.47	12.00
10900.00	90.00	270.05	10550.00	0.45 N	554.93 W	554.93	0.00
11000.00	90.00	270.05	10550.00	0.54 N	654.93 W	654.93	0.00
11100.00	90.00	270.05	10550.00	0.62 N	754.93 W	754.93	0.00
11200.00	90.00	270.05	10550.00	0.70 N	854.93 W	854.93	0.00
11300.00	90.00	270.05	10550.00	0.78 N	954.93 W	954.93	0.00
11400.00	90.00	270.05	10550.00	0.86 N	1054.93 W	1054.93	0.00
11500.00	90.00	270.05	10550.00	0.95 N	1154.93 W	1154.93	0.00
11600.00	90.00	270.05	10550.00	1.03 N	1254.93 W	1254.93	0.00
11700.00	90.00	270.05	10550.00	1.11 N	1354.93 W	1354.93	0.00
11800.00	90.00	270.05	10550.00	1.19 N	1454.93 W	1454.93	0.00
11900.00	90.00	270.05	10550.00	1.27 N	1554.93 W	1554.93	0.00
12000.00	90.00	270.05	10550.00	1.35 N	1654.93 W	1654.93	0.00
12100.00	90.00	270.05	10550.00	1.44 N	1754.93 W	1754.93	0.00
12200.00	90.00	270.05	10550.00	1.52 N	1854.93 W	1854.93	0.00

12300.00	90.00	270.05	10550.00	1.60 N	1954.93 W	1954.93
0.00						
12400.00	90.00	270.05	10550.00	1.68 N	2054.93 W	2054.93
0.00						
12500.00	90.00	270.05	10550.00	1.76 N	2154.93 W	2154.93
0.00						
12600.00	90.00	270.05	10550.00	1.85 N	2254.93 W	2254.93
0.00						
12700.00	90.00	270.05	10550.00	1.93 N	2354.93 W	2354.93
0.00						
12800.00	90.00	270.05	10550.00	2.01 N	2454.93 W	2454.93
0.00						
12900.00	90.00	270.05	10550.00	2.09 N	2554.93 W	2554.93
0.00						
13000.00	90.00	270.05	10550.00	2.17 N	2654.93 W	2654.93
0.00						
13100.00	90.00	270.05	10550.00	2.26 N	2754.93 W	2754.93
0.00						
13200.00	90.00	270.05	10550.00	2.34 N	2854.93 W	2854.93
0.00						
13300.00	90.00	270.05	10550.00	2.42 N	2954.93 W	2954.93
0.00						
13400.00	90.00	270.05	10550.00	2.50 N	3054.93 W	3054.93
0.00						
13500.00	90.00	270.05	10550.00	2.58 N	3154.93 W	3154.93
0.00						
13600.00	90.00	270.05	10550.00	2.66 N	3254.93 W	3254.93
0.00						
13700.00	90.00	270.05	10550.00	2.75 N	3354.93 W	3354.93
0.00						
13800.00	90.00	270.05	10550.00	2.83 N	3454.93 W	3454.93
0.00						
13900.00	90.00	270.05	10550.00	2.91 N	3554.93 W	3554.93
0.00						
14000.00	90.00	270.05	10550.00	2.99 N	3654.93 W	3654.93
0.00						
14100.00	90.00	270.05	10550.00	3.07 N	3754.93 W	3754.93
0.00						
14200.00	90.00	270.05	10550.00	3.16 N	3854.93 W	3854.93
0.00						
14300.00	90.00	270.05	10550.00	3.24 N	3954.93 W	3954.93
0.00						
14400.00	90.00	270.05	10550.00	3.32 N	4054.93 W	4054.93
0.00						
14500.00	90.00	270.05	10550.00	3.40 N	4154.93 W	4154.93
0.00						
14600.00	90.00	270.05	10550.00	3.48 N	4254.93 W	4254.93
0.00						
14613.34	90.00	270.05	10550.00	3.49 N	4268.27 W	4268.27
0.00						

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to WELL. Northings and Eastings are relative to Site.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 270.047° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.068°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 14613.34ft., the Bottom Hole Displacement is 4268.27ft., in the Direction of 270.047° (Grid).

Proposal No: 690850079B

Devon Energy Corp
Habanero 17 Fed #2H

Sec. 17-24S-27E
Eddy County, New Mexico
April 5, 2011

Well Proposal

Prepared for:
Pat Brown
Drilling Engineer
Oklahoma City, Oklahoma
Bus Phone: (405) 228-8511

Prepared by:
John Parks
Region Technical Rep.
Oklahoma City, Oklahoma

THE BLUE WELLBORE℠
Makes better wells

Service Point:
Artesia
Bus Phone: (505) 746-3140
Fax: (505) 746-2293

Service Representatives:
Michael Sarabia
Field Supervisor
Artesia, New Mexico

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	Surface Casing
Date:	April 5, 2011

Proposal No: 690850079B

JOB AT A GLANCE

Depth (TVD)	250 ft
Depth (MD)	250 ft
Hole Size	17.5 in
Casing Size/Weight	13 3/8 in, 48 lbs/ft
Pump Via	13 3/8" O.D. (12.715" .I.D) 48
Total Mix Water Required	1,842 gals
Spacer	
Fresh Water	10 bbls
Density	8.3 ppg
Cement Slurry	
Class C	290 sacks
Density	14.8 ppg
Yield	1.35 cf/sack
Displacement	
Mud	39 bbls
Density	8.8 ppg

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	Surface Casing
Date:	April 5, 2011

Proposal No: 690850079B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
17.500 HOLE	250	250

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
13.375	12.715	48	250	250

Mud Density	8.80 ppg
Est. Static Temp.	80 ° F
Est. Circ. Temp.	80 ° F

VOLUME CALCULATIONS

250 ft	x	0.6946 cf/ft	with	125 % excess	=	390.7 cf
				TOTAL SLURRY VOLUME	=	390.7 cf
					=	70 bbls

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	Surface Casing
Date:	April 5, 2011

Proposal No: 690850079B

FLUID SPECIFICATIONS

Spacer — 10.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	391	/	1.35	= 290 sacks Class C Cement + 0.125 lbs/sack Cello Flake + 2% bwoc Calcium Chloride + 56.3% Fresh Water

Displacement — 39.3 bbls Mud @ 8.8 ppg

CEMENT PROPERTIES

	SLURRY NO.1
Slurry Weight (ppg)	14.80
Slurry Yield (cf/sack)	1.35
Amount of Mix Water (gps)	6.35
Estimated Pumping Time - 70 BC (HH:MM)	2:30
COMPRESSIVE STRENGTH	
8 hrs @ 80 ° F (psi)	
12 hrs @ 80 ° F (psi)	500
24 hrs @ 80 ° F (psi)	1150
72 hrs @ 80 ° F (psi)	2100
	2700

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	Intermediate Casing
Date:	April 5, 2011

Proposal No: 690850079B

JOB AT A GLANCE

Depth (TVD)	3,100 ft
Depth (MD)	3,100 ft
Hole Size	12.25 in
Casing Size/Weight	9 5/8 in, 40 lbs/ft
Pump Via	9 5/8" O.D. (8.835" .I.D) 40
Total Mix Water Required	11,312 gals
Spacer	
Fresh Water	20 bbls
Density	8.3 ppg
Lead Slurry	
35:65:6 Poz:Class C	835 sacks
Density	12.5 ppg
Yield	2.04 cf/sack
Tail Slurry	
60:40 Poz:Class C (MPA)	300 sacks
Density	13.8 ppg
Yield	1.37 cf/sack
Displacement	
Mud	232 bbls
Density	10.0 ppg

Operator Name: Devon Energy Corp
Well Name: Habanero 17 Fed #2H
Job Description: Intermediate Casing
Date: April 5, 2011

Proposal No: 690850079B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.715 CASING	250	250
12.250 HOLE	3,100	3,100

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
9.625	8.835	40	3,100	3,100

Float Collar set @	3,060 ft
Mud Density	10.00 ppg
Est. Static Temp.	108 ° F
Est. Circ. Temp.	95 ° F

VOLUME CALCULATIONS

250 ft	x	0.3765 cf/ft	with	0 % excess	=	94.1 cf
2,289 ft	x	0.3132 cf/ft	with	125 % excess	=	1613.3 cf
561 ft	x	0.3132 cf/ft	with	125 % excess	=	395.0 cf
40 ft	x	0.4257 cf/ft	with	0 % excess	=	17.0 cf (inside pipe)
			TOTAL SLURRY VOLUME		=	2119.5 cf
					=	378 bbls

Operator Name: Devon Energy Corp
Well Name: Habanero 17 Fed #2H
Job Description: Intermediate Casing
Date: April 5, 2011

Proposal No: 690850079B

FLUID SPECIFICATIONS

Spacer — 20.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	1707	/	2.04	= 835 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 107.7% Fresh Water
Tail Slurry	412	/	1.37	= 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.1% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.4% Fresh Water

Displacement — 232.0 bbls Mud @ 10 ppg

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.50	13.80
Slurry Yield (cf/sack)	2.04	1.37
Amount of Mix Water (gps)	11.24	6.43
Estimated Pumping Time - 70 BC (HH:MM)	5:00	3:30
COMPRESSIVE STRENGTH		
8 hrs @ 107 ° F (psi)		
12 hrs @ 107 ° F (psi)		800
17 hrs @ 107 ° F (psi)	325	1549
24 hrs @ 107 ° F (psi)	500	
	637	2400

ACTUAL CEMENT VOLUME MAY VARY BASED ON FLUID CALIPER.

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	2nd Intermediate Casing
Date:	April 5, 2011

Proposal No: 690850079B

JOB AT A GLANCE

Depth (TVD)		8,900 ft
Depth (MD)		8,900 ft
Hole Size		8.75 in
Casing Size/Weight		7in, 26 lbs/ft
Pump Via	7" O.D. (6.276" .I.D) 26	
Total Mix Water Required		9,699 gals
Stage No: 1	**Float Collar set @**	8,860 ft
Spacer		
Fresh Water		10 bbls
Density		8.3 ppg
Spacer		
Surebond III		1,000 gals
Density		9.4 ppg
Spacer		
Fresh Water		10 bbls
Density		8.3 ppg
Lead Slurry		
35:65:6 Poz:Class H:Gel		505 sacks
Density		12.5 ppg
Yield		1.96 cf/sack
Tail Slurry		
Super C Modified		275 sacks
Density		13.3 ppg
Yield		1.56 cf/sack
Displacement		
Displacement Fluid		339 bbls

JOB AT A GLANCE (Continued)

Stage No: 2 **Stage Collar set @** 4,200 ft

Spacer

Fresh Water	20 bbls
Density	8.3 ppg

Lead Slurry

35:65:6 Poz:Class C:Gel	135 sacks
Density	12.5 ppg
Yield	2.04 cf/sack

Tail Slurry

60:40 Poz:Class C (MPA)	100 sacks
Density	13.8 ppg
Yield	1.38 cf/sack

Displacement

Displacement Fluid	161 bbls

Operator Name: Devon Energy Corp
Well Name: Habanero 17 Fed #2H
Job Description: 2nd Intermediate Casing
Date: April 5, 2011

Proposal No: 690850079B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
8.835 CASING	3,100	3,100
8.750 HOLE	8,900	8,900

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
7.000	6.276	26	8,900	8,900

STAGE: 1

Float Collar set @	8,860 ft
Mud Density	9.30 ppg
Est. Static Temp.	160 ° F
Est. Circ. Temp.	133 ° F

VOLUME CALCULATIONS

3,300 ft	x	0.1503 cf/ft	with	100 %	excess	=	992.2 cf
1,400 ft	x	0.1503 cf/ft	with	100 %	excess	=	420.9 cf
40 ft	x	0.2148 cf/ft	with	0 %	excess	=	8.6 cf (inside pipe)
			TOTAL SLURRY VOLUME			=	1421.7 cf
						=	253 bbls

STAGE: 2

Stage Collar set @	4,200 ft
Mud Density	9.30 ppg
Est. Static Temp.	114 ° F
Est. Circ. Temp.	100 ° F

VOLUME CALCULATIONS

500 ft	x	0.1585 cf/ft	with	0 %	excess	=	79.2 cf
642 ft	x	0.1503 cf/ft	with	100 %	excess	=	193.2 cf
458 ft	x	0.1503 cf/ft	with	100 %	excess	=	137.6 cf
			TOTAL SLURRY VOLUME			=	410.0 cf
						=	73 bbls

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	2nd Intermediate Casing
Date:	April 5, 2011

Proposal No: 690850079B

FLUID SPECIFICATIONS

STAGE NO. 1

Spacer	10.0 bbls Fresh Water @ 8.34 ppg
Spacer	1,000.0 gals Surebond III @ 9.35 ppg
Spacer	10.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	992	/	1.96	= 505 sacks (35:65) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 103.2% Fresh Water
Tail Slurry	430	/	1.56	= 275 sacks (15:61:11) Poz (Fly Ash).Class C Cement:CSE-2 + 1% bwow Potassium Chloride + 0.75% bwoc EC-1 + 0.125 lbs/sack Cello Flake + 0.4% bwoc CD-32 + 2 lbs/sack LCM-1 + 0.6% bwoc FL-25 + 0.6% bwoc FL-52A + 73.3% Fresh Water
Displacement				339.0 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.50	13.30
Slurry Yield (cf/sack)	1.96	1.56
Amount of Mix Water (gps)	10.76	7.65
Estimated Pumping Time - 70 BC (HH:MM)	5:30	4:30
Free Water (mls) @ ° F @ 90 ° Angle		0.0
Fluid Loss (cc/30min) at 1000 psi and ° F		50.0
COMPRESSIVE STRENGTH		
12 hrs @ 167 ° F (psi)	350	900
24 hrs @ 167 ° F (psi)	700	2100
72 hrs @ 167 ° F (psi)	1000	2600

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	2nd Intermediate Casing
Date:	April 5, 2011

Proposal No: 690850079B

FLUID SPECIFICATIONS (Continued)

STAGE NO. 2

Spacer				20.0 bbls Fresh Water @ 8.34 ppg
Lead Slurry	272	/	2.04	= 135 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 107.7% Fresh Water
Tail Slurry	138	/	1.38	= 100 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.3% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.5% Fresh Water
Displacement				160.7 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.50	13.80
Slurry Yield (cf/sack)	2.04	1.38
Amount of Mix Water (gps)	11.24	6.44
Estimated Pumping Time - 70 BC (HH:MM)	4:00	2:30
Free Water (mls) @ ° F @ 90 ° Angle		
Fluid Loss (cc/30min) at 1000 psi and ° F		
COMPRESSIVE STRENGTH		
12 hrs @ 106 ° F (psi)	350	
17 hrs @ 106 ° F (psi)	500	
24 hrs @ 106 ° F (psi)	650	
12 hrs @ 121 ° F (psi)		1700
24 hrs @ 121 ° F (psi)		2500

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	Long String
Date:	April 5, 2011

Proposal No: 690850079B

JOB AT A GLANCE

Depth (TVD)	10,500 ft
Depth (MD)	14,613 ft
Hole Size	6.125 in
Casing Size/Weight	4 1/2 in, 11.6 lbs/ft
Pump Via	4 1/2" O.D. (4.000" .I.D) 11.6
Total Mix Water Required	3,902 gals
Spacer	
MCS-3	50 bbls
Density	12.0 ppg
Spacer	
Water Based Mud	300 bbls
Density	11.0 ppg
Spacer	
Turbo Flow III	40 bbls
Density	12.0 ppg
Cement Slurry	
50:50 Poz:Class H	685 sacks
Density	14.2 ppg
Yield	1.26 cf/sack
Displacement	
Displacement Fluid	227 bbls

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	Long String
Date:	April 5, 2011

Proposal No: 690850079B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
6.276 CASING	8,900	8,900
6.125 HOLE	14,613	10,500

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
4.500	4.000	11.6	14,613	10,500

Float Collar set @	14,573 ft
Mud Density	11.00 ppg
Mud Type	Oil Based
Est. Static Temp.	164 ° F
Est. Circ. Temp.	164 ° F

VOLUME CALCULATIONS

500 ft	x	0.1044 cf/ft	with	0 % excess	=	52.2 cf
5,713 ft	x	0.0942 cf/ft	with	50 % excess	=	807.0 cf
40 ft	x	0.0873 cf/ft	with	0 % excess	=	3.5 cf (inside pipe)
			TOTAL SLURRY VOLUME		=	862.7 cf
					=	154 bbls

Operator Name:	Devon Energy Corp
Well Name:	Habanero 17 Fed #2H
Job Description:	Long String
Date:	April 5, 2011

Proposal No: 690850079B

FLUID SPECIFICATIONS

Spacer	50.0 bbls MCS-3 + 2 gal/bbl US-40 + 16.5 lbs/bbl Bentonite + 183 lbs/bbl Barite, Bulk @ 12 ppg
Spacer	300.0 bbls Water Based Mud @ 11 ppg
Spacer	40.0 bbls Turbo Flow III @ 12 ppg

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	863	/	1.26	= 685 sacks (50:50) Poz (Fly Ash):Class H Cement + 3% bwow Sodium Chloride + 0.2% bwoc CD-32 + 0.5% bwoc FL-25 + 0.5% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 56.6% Fresh Water
Displacement				226.5 bbls Displacement Fluid

CEMENT PROPERTIES

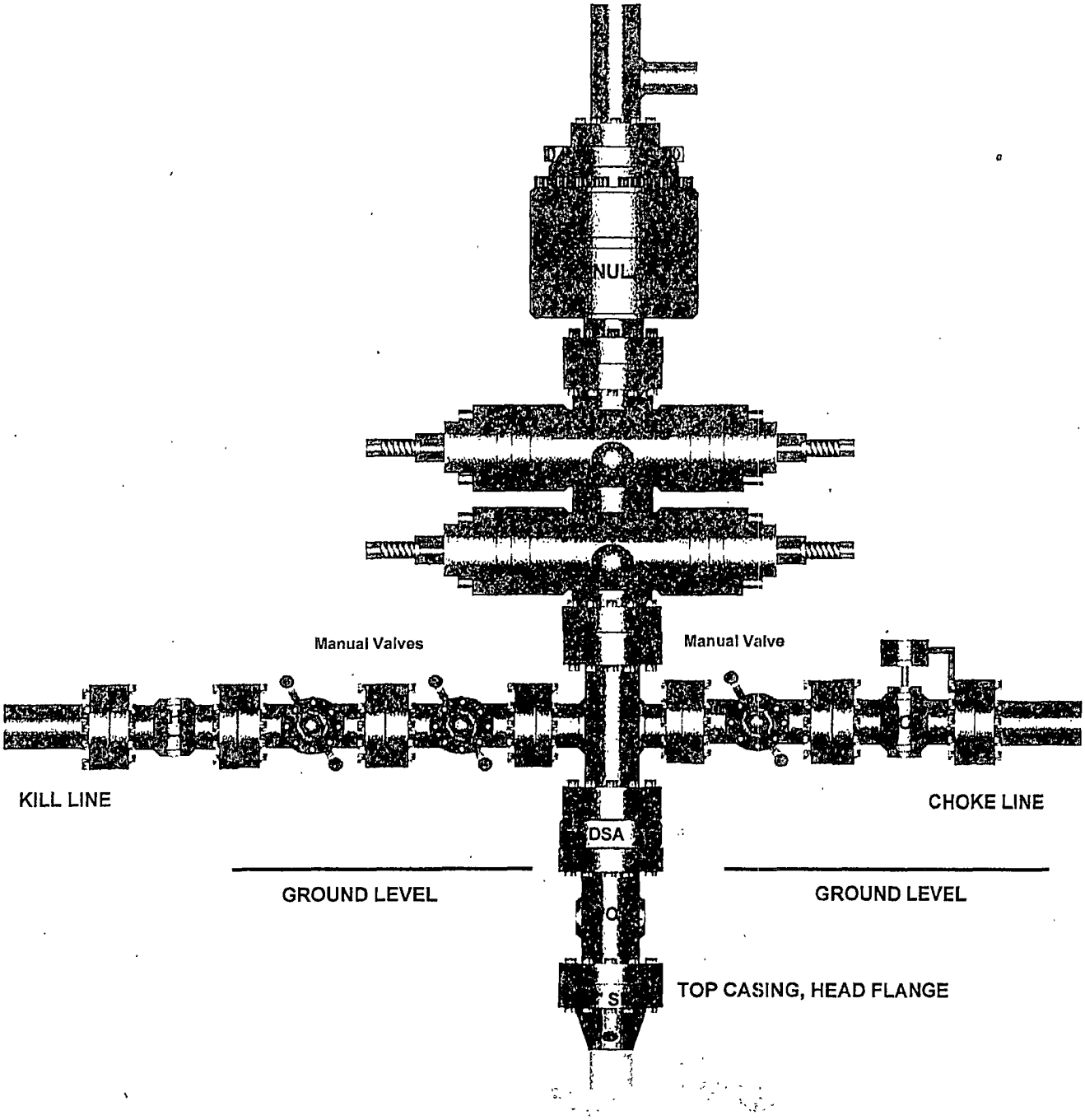
	SLURRY NO.1
Slurry Weight (ppg)	14.20
Slurry Yield (cf/sack)	1.26
Amount of Mix Water (gps)	5.70
Estimated Pumping Time - 70 BC (HH:MM)	4:00
Free Water (mls) @ 166 ° F @ 90 ° Angle	0.0
Fluid Loss (cc/30min) at 1000 psi and 166 ° F	50.0
COMPRESSIVE STRENGTH	
12 hrs @ 166 ° F (psi)	250
24 hrs @ 166 ° F (psi)	1400
72 hrs @ 166 ° F (psi)	1900

CEMENT VOLUMES WILL VARY BASED ON CALIPER.

TEST SPACER SYSTEM WITH OIL BASED MUD.

BATCH MIX SPACER SYSTEM.

13-5/8" x 5,000 psi BOP Stack



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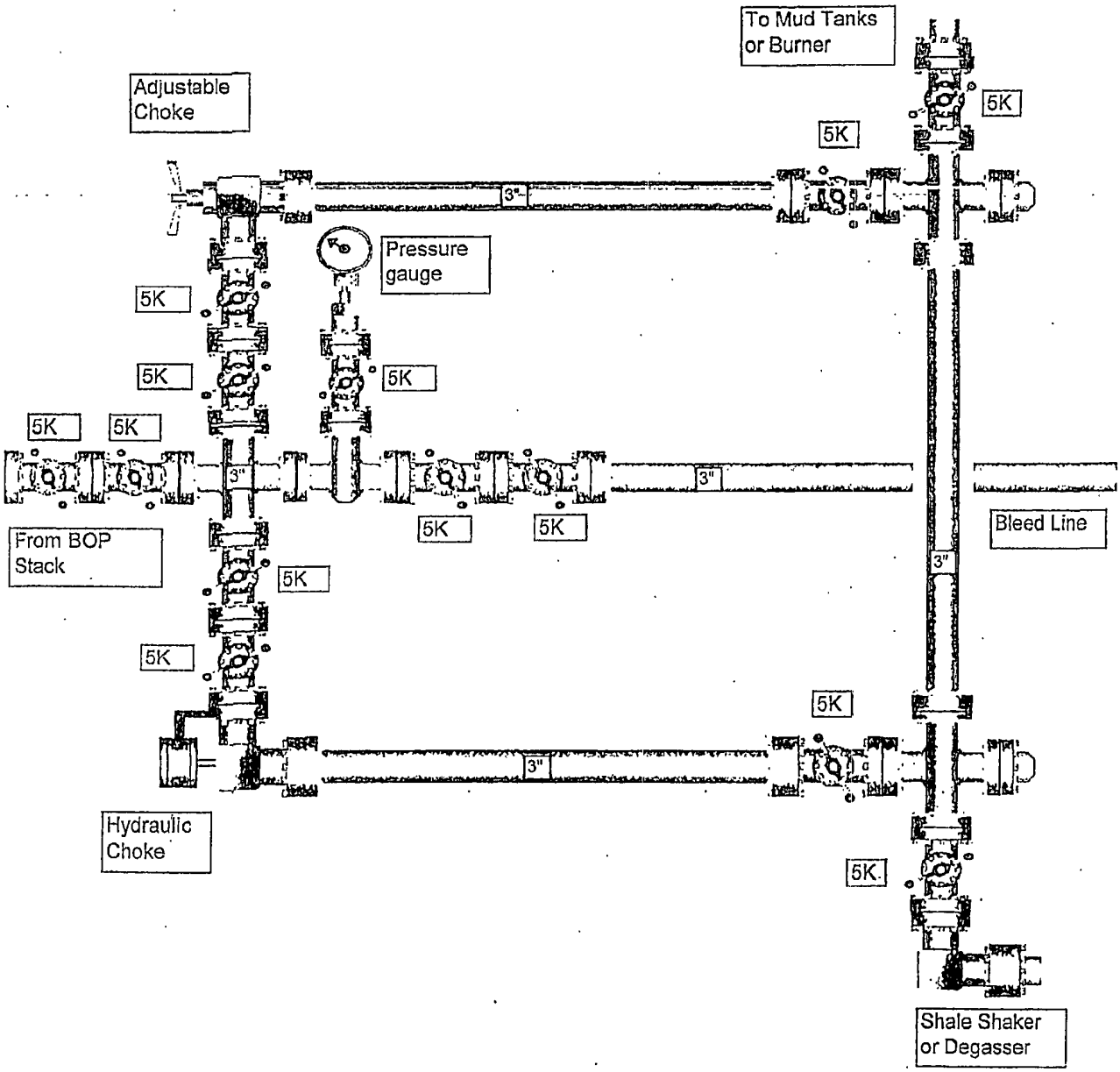
5,000 PSI CHOKE MANIFOLD



Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Habanero 17 Federal 2H
Surface Location: 1500' FSL & 355' FEL, Unit I, Sec 17 T24S R27E, Eddy, NM
Bottom hole Location: 1500' FSL & 660' FWL, Unit L, Sec 17 T24S R27E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.

2. Wear ring will be properly installed in head.

3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.

4. All fittings will be flanged.

5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.

6. All choke lines will be anchored to prevent movement.

7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.

8. Will maintain a kelly cock attached to the kelly.

9. Hand wheels and wrenches will be properly installed and tested for safe operation.

10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.

11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.