

OCD-ARTESIA

Form 3160-3
(February 2005)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

EAG79

5 Lease Serial No.
USA NMNM 90534

6 If Indian, Allottee or Tribe Name

7 If Unit or CA Agreement, Name and No

8 Lease Name and Well No.
Beetle Juice 19 Federal 4H9 API Well No.
30-015-3923210 Field and Pool, or Exploratory
Hackberry; Bone Spring, NW

11 Sec, T R M or Blk and Survey or Area

Sec 19-T19S-R31E

1a. Type of work. ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone2 Name of Operator
Devon Energy Production Co., LP3a. Address 20 North Broadway
OKC, OK 731023b. Phone No (include area code)
(405)-552-7802

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

At surface NENW 220' FNL & 1450' FWL Lot C
At proposed prod zone SWSW 330' FSL & 890' FWL Lot M14 Distance in miles and direction from nearest town or post office*
Approximately 10 miles south of Loco Hills, NM.12. County or Parish
Eddy13 State
NM15. Distance from proposed*
location to nearest
property or lease line, ft
(Also to nearest drig. unit line, if any) 220'16 No. of acres in lease
632.6817 Spacing Unit dedicated to this well
16018 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft SL: '50 BHL: 1220'19 Proposed Depth
TVD 8820' MD 13483'20 BLM/BIA Bond No. on file
PH: 9160' MD CO-110421 Elevations (Show whether DF, KDB, RT, GL, etc.)
3398.0' GL22. Approximate date work will start*
03/15/201123 Estimated duration
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 | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM |

25 Signature

Name (Printed/Typed)

Stephanie A. Ysasaga

Date

02/15/2011

Title

Sr. Staff Engineering Technician

Approved by (Signature)

/s/ Don Peterson

Name (Printed/Typed)

Date

JUL 19 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)

Capitan Controlled Water Basin

RECEIVED

JUL 20 2011

NMOCD ARTESIA

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

DRILLING PROGRAM

Devon Energy Production Company, LP

Beetle Juice 19 Federal 4H

Surface Location: 220' FNL & 1450' FWL, Unit C, Sec 19 T19S R31E, Eddy, NM

Bottom hole Location: 330' FSL & 890' FWL, Unit M, Sec 19 T19S R31E, 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. Quaternary Alluvium	120'	Fresh Water
b. Rustler	329'	Barren
c. Salado	528'	Barren
d. Tansil Dolomite	1816'	Barren
e. Yates	1939'	Oil
f. Seven Rivers	2175'	Oil
g. Queen	3194'	Oil
h. San Andres	3955'	Oil
i. Delaware	4175'	Oil
j. Bone Springs	6465'	Oil
k. 1 st Bone Spring Ss	7578'	Oil
l. 2 nd Bone Spring Lime	8130'	Oil
m. 2 nd Bone Spring Ss	8613'	Oil
n. 2 nd Bone Spring Middle Ss	8719'	Oil
o. 2 nd Bone Spring Middle Ss Base	8813'	Oil
p. 3 rd Bone Spring Lm	9012'	Oil
q. PBTD (Pilot Hole)	9087' 9160'	Oil
r. Total Depth	TVD 8868' MD 13438'	

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 400' 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 intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing. All casing is new and API approved.

3. **Casing Program:**

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0'-400'	13 3/8"	0'-400'	48#	STC	H-40
12 1/4"	475'- 3100' 3975'	9 5/8"	0'- 3100' 3975'	40#	LTC	J-55
8 3/4"	3100'-7900'	5 1/2"	0'-7900'	17#	LTC	P-110HC
8 3/4"	8200'-13483'	5 1/2"	8200'-13483'	17#	BTC	P-110HC

NOTE: THIS WELL WILL BE DRILLED WITH A PILOT HOLE (PH)

An 8-3/4" pilot hole will be drilled to 9,160' MD, and plugged back to KOP. The cement plug details are included below in the "Cementing Program".

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u>	<u>Burst Design</u>	<u>Tension Design</u>
	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
13 3/8"	4.11	9.24	16.77
9 5/8"	1.59	2.45	4.19
5 1/2" LTC	1.94	2.77	1.94
5 1/2" BTC	1.81	2.58	6.06

4. Cement Program: (all cement volumes based on at least 25% excesses)

- a. 13 3/8" Conductor **Lead:** 250 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 81.4% Fresh Water, 13.5 ppg. **Yield:** 1.75 cf/sk
- Tail:** 250 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 14.8 ppg. **Yield:** 1.35 cf/sk.. **TOC @ surface.**
- b. 9 5/8" Intermediate **Lead:** 750 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, 12.5 ppg. **Yield:** 1.96 cf/sk
- Tail:** 300 sacks Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 52.7% Water, 14.8 ppg. **Yield:** 1.34 cf/sk. **TOC @ surface.**
- c. 5 1/2" Production **1st Stage**
- Lead:** 900 sacks (35:65) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% Fresh Water, 12.5 ppg. **Yield:** 2.00 cf/sk
- Tail:** 1,400 sacks (50:50) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% Fresh Water, 14.2 ppg. **Yield:** 1.28 cf/sk

DV TOOL at ~4,500 ft

2nd Stage

Lead: 250 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg. **Yield:** 2.89 cf/sk

*Dev
LOA* **Tail:** 150 sacks (60:40) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8 ppg. **Yield:** 1.37cf/sk. **TOC @ 2,600 ft**

8-3/4" Pilot Hole Plug 700 sx Class H, 18.0 ppg, 0.89 cf/sk
Top of Plug 7,972' (KOP)
Bottom of Plug 9,160' (Pilot Hole TD)

TOC for All Strings:

Surface: 0'
Intermediate: 0'
Production: 2,600'

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: The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Triple Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 3M Triple Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the intermediate casing shoe.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon requests a variance to use a flexible line with flanged ends 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**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 400'	8.4-9.0	30-34	NC	Fresh Water
400' - 3100' <i>3975</i>	9.8-10.0	28-32	NC	Brine
<i>3975</i> 3100' - 13483'	8.6-9.0	28-32	NC-12	Fresh Water

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 5 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 1/2" 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 3600 psi and Estimated BHT 145°. 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.

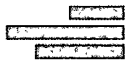
NO
longer
planned



Weatherford®

Drilling Services

Proposal



devon

BEETLE JUICE 19 FED #4H

EDDY COUNTY, NM

WELL FILE: **PLAN 3**

FEBRUARY 4, 2011

Weatherford International, Ltd.

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devon

Beetle Juice 19 Fed #4H
Eddy Co., NM
KB ELEV: 3423
GL ELEV: 3398

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	7972.88	0.00	0.00	7972.88	0.00	0.00	0.00	0.00	0.00	
3	8409.07	43.62	271.24	8368.14	3.41	-158.13	10.00	271.24	14.73	
4	9318.75	90.00	179.83	8790.00	-570.63	-558.33	10.00	-91.02	630.84	Lp
5	13482.92	90.00	179.83	8790.00	-4734.78	-546.09	0.00	0.00	4766.17	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#4H	0.00	0.00	601356.44	670935.86	32°39'08.880N	103°54'44.117W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Lp	8790.00	-570.63	-558.33	600785.81	670377.53	Point
Pbhl	8790.00	-4734.78	-546.09	596621.66	670389.77	Point

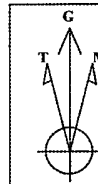
FIELD DETAILS

Eddy Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Beetle Juice 19 Fed #4H
Site Centre Northing: 601356.44
Easting: 670935.86
Ground Level: 3398.00
Positional Uncertainty: 0.00
Convergence: 0.23



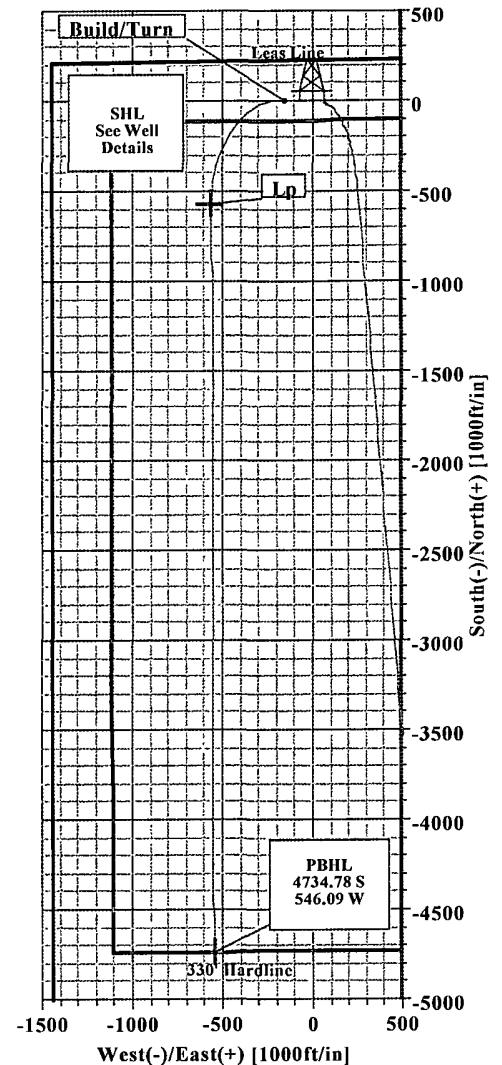
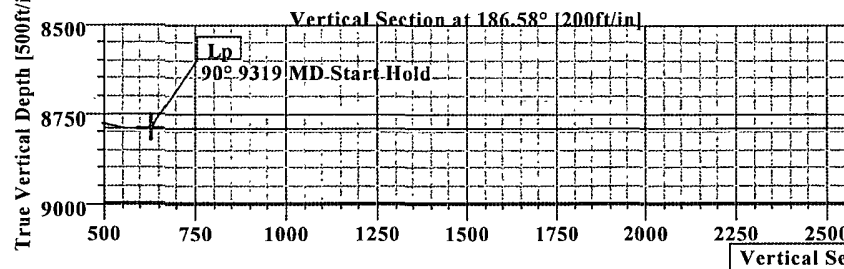
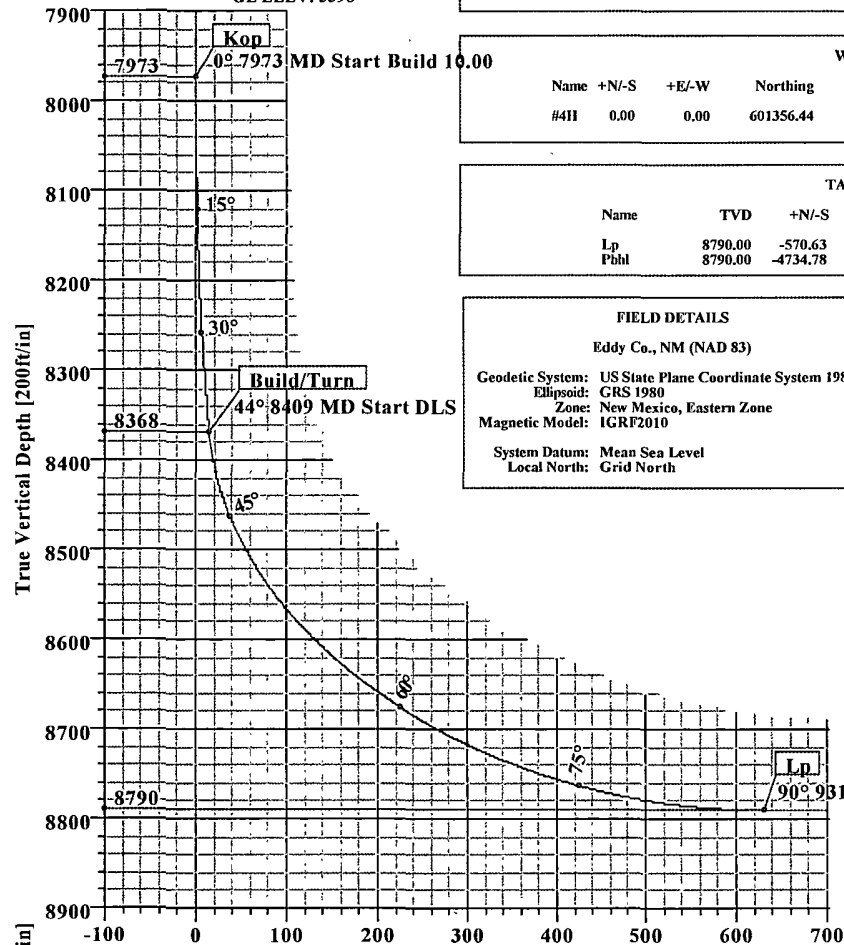
Azimuths to Grid North
True North: -0.23°
Magnetic North: 7.53°
Magnetic Field
Strength: 48845nT
Dip Angle: 60.52°
Date: 8/15/2011
Model: IGRF2010

Total Correction to Grid North: 7.53°

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LEGEND

#3H (1)
Plan #3



Plan: Plan #3 (#4H/1)

Created By: Russell W. Joyner

Date: 2/4/2011



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy	Date: 2/4/2011	Time: 13:13:20	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: #4H, Grid North		
Site: Beetle Juice 19 Fed #4H	Vertical (TVD) Reference: SITE 3423.0		
Well: #4H	Section (VS) Reference: Well (0.00N,0.00E,186.58Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Plan: Plan #3	Date Composed: 2/4/2011
Principal: Yes	Version: 1
	Tied-to: From Surface

Field: Eddy Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983	Map Zone: New Mexico, Eastern Zone
Geo Datum: GRS 1980	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Beetle Juice 19 Fed #4H

Site Position:	Northing: 601356.44 ft	Latitude: 32 39 8.880 N
From: Map	Easting: 670935.86 ft	Longitude: 103 54 44.117 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3398.00 ft		Grid Convergence: 0.23 deg

Well: #4H	Slot Name:	
Well Position: +N/-S 0.00 ft	Northing: 601356.44 ft	Latitude: 32 39 8.880 N
+E/-W 0.00 ft	Easting: 670935.86 ft	Longitude: 103 54 44.117 W
Position Uncertainty: 0.00 ft		

Wellpath: 1	Drilled From: Surface		
Current Datum: SITE	Tie-on Depth: 0.00 ft		
Magnetic Data: 8/15/2011	Above System Datum: Mean Sea Level		
Field Strength: 48845 nT	Declination: 7.76 deg		
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.52 deg		
ft	+N/-S	+E/-W	Direction
	ft	ft	deg
0.00	0.00	0.00	186.58

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7972.88	0.00	0.00	7972.88	0.00	0.00	0.00	0.00	0.00	0.00	
8409.07	43.62	271.24	8368.14	3.41	-158.13	10.00	10.00	0.00	271.24	
9318.75	90.00	179.83	8790.00	-570.63	-558.33	10.00	5.10	-10.05	-91.02	Lp
13482.92	90.00	179.83	8790.00	-4734.78	-546.09	0.00	0.00	0.00	0.00	Pbhl

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
7900.00	0.00	0.00	7900.00	0.00	0.00	0.00	0.00	601356.44	670935.86	
7972.88	0.00	0.00	7972.88	0.00	0.00	0.00	0.00	601356.44	670935.86	Kop
8000.00	2.71	271.24	7999.99	0.01	-0.64	0.06	10.00	601356.45	670935.22	
8100.00	12.71	271.24	8098.96	0.30	-14.04	1.31	10.00	601356.74	670921.82	
8200.00	22.71	271.24	8194.10	0.96	-44.42	4.14	10.00	601357.40	670891.44	
8300.00	32.71	271.24	8282.52	1.96	-90.85	8.46	10.00	601358.40	670845.01	
8400.00	42.71	271.24	8361.53	3.28	-151.93	14.15	10.00	601359.72	670783.93	
8409.07	43.62	271.24	8368.14	3.41	-158.13	14.73	10.00	601359.85	670777.73	Build/Turn
8500.00	44.21	258.14	8433.78	-2.44	-220.65	27.70	10.00	601354.00	670715.21	
8600.00	46.52	244.45	8504.20	-25.31	-287.67	58.10	10.00	601331.13	670648.19	
8700.00	50.32	232.06	8570.71	-64.72	-350.91	104.50	10.00	601291.72	670584.95	
8800.00	55.28	221.14	8631.27	-119.46	-408.44	165.48	10.00	601236.98	670527.42	
8900.00	61.10	211.56	8684.05	-187.88	-458.52	239.18	10.00	601168.56	670477.34	
9000.00	67.52	203.05	8727.44	-267.90	-499.62	323.38	10.00	601088.54	670436.24	
9100.00	74.35	195.31	8760.13	-357.07	-530.50	415.50	10.00	600999.37	670405.36	
9200.00	81.43	188.08	8781.12	-452.70	-550.22	512.76	10.00	600903.74	670385.64	



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Beetle Juice 19 Fed #4H
Well: #4H
Wellpath: 1

Date: 2/4/2011 Time: 13:13:20 Page: 2
Co-ordinate(NE) Reference: Well: #4H, Grid North
Vertical (TVD) Reference: SITE 3423.0
Section (VS) Reference: Well (0.00N,0.00E,186.58Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9300.00	88.64	181.13	8789.78	-551.88	-558.17	612.20	10.00	600804.56	670377.69	Lp
9318.75	90.00	179.83	8790.00	-570.63	-558.33	630.84	10.00	600785.81	670377.53	
9400.00	90.00	179.83	8790.00	-651.88	-558.09	711.53	0.00	600704.56	670377.77	
9500.00	90.00	179.83	8790.00	-751.88	-557.80	810.84	0.00	600604.56	670378.06	
9600.00	90.00	179.83	8790.00	-851.88	-557.50	910.15	0.00	600504.56	670378.36	
9700.00	90.00	179.83	8790.00	-951.88	-557.21	1009.45	0.00	600404.56	670378.65	
9800.00	90.00	179.83	8790.00	-1051.88	-556.92	1108.76	0.00	600304.56	670378.94	
9900.00	90.00	179.83	8790.00	-1151.88	-556.62	1208.07	0.00	600204.56	670379.24	
10000.00	90.00	179.83	8790.00	-1251.88	-556.33	1307.38	0.00	600104.56	670379.53	
10100.00	90.00	179.83	8790.00	-1351.88	-556.04	1406.68	0.00	600004.56	670379.82	
10200.00	90.00	179.83	8790.00	-1451.88	-555.74	1505.99	0.00	599904.56	670380.12	
10300.00	90.00	179.83	8790.01	-1551.88	-555.45	1605.30	0.00	599804.56	670380.41	
10400.00	90.00	179.83	8790.01	-1651.88	-555.16	1704.60	0.00	599704.56	670380.70	
10500.00	90.00	179.83	8790.01	-1751.88	-554.86	1803.91	0.00	599604.56	670381.00	
10600.00	90.00	179.83	8790.01	-1851.87	-554.57	1903.22	0.00	599504.57	670381.29	
10700.00	90.00	179.83	8790.01	-1951.87	-554.28	2002.53	0.00	599404.57	670381.58	
10800.00	90.00	179.83	8790.01	-2051.87	-553.98	2101.83	0.00	599304.57	670381.88	
10900.00	90.00	179.83	8790.01	-2151.87	-553.69	2201.14	0.00	599204.57	670382.17	
11000.00	90.00	179.83	8790.01	-2251.87	-553.40	2300.45	0.00	599104.57	670382.46	
11100.00	90.00	179.83	8790.01	-2351.87	-553.10	2399.76	0.00	599004.57	670382.76	
11200.00	90.00	179.83	8790.01	-2451.87	-552.81	2499.06	0.00	598904.57	670383.05	
11300.00	90.00	179.83	8790.01	-2551.87	-552.52	2598.37	0.00	598804.57	670383.34	
11400.00	90.00	179.83	8790.01	-2651.87	-552.22	2697.68	0.00	598704.57	670383.64	
11500.00	90.00	179.83	8790.01	-2751.87	-551.93	2796.99	0.00	598604.57	670383.93	
11600.00	90.00	179.83	8790.01	-2851.87	-551.64	2896.29	0.00	598504.57	670384.22	
11700.00	90.00	179.83	8790.01	-2951.87	-551.34	2995.60	0.00	598404.57	670384.52	
11800.00	90.00	179.83	8790.01	-3051.87	-551.05	3094.91	0.00	598304.57	670384.81	
11900.00	90.00	179.83	8790.01	-3151.87	-550.76	3194.22	0.00	598204.57	670385.10	
12000.00	90.00	179.83	8790.01	-3251.87	-550.46	3293.52	0.00	598104.57	670385.40	
12100.00	90.00	179.83	8790.01	-3351.87	-550.17	3392.83	0.00	598004.57	670385.69	
12200.00	90.00	179.83	8790.01	-3451.87	-549.88	3492.14	0.00	597904.57	670385.98	
12300.00	90.00	179.83	8790.02	-3551.87	-549.58	3591.45	0.00	597804.57	670386.28	
12400.00	90.00	179.83	8790.02	-3651.87	-549.29	3690.75	0.00	597704.57	670386.57	
12500.00	90.00	179.83	8790.02	-3751.87	-549.00	3790.06	0.00	597604.57	670386.86	
12600.00	90.00	179.83	8790.02	-3851.87	-548.70	3889.37	0.00	597504.57	670387.16	
12700.00	90.00	179.83	8790.02	-3951.87	-548.41	3988.68	0.00	597404.57	670387.45	
12800.00	90.00	179.83	8790.02	-4051.87	-548.12	4087.98	0.00	597304.57	670387.74	
12900.00	90.00	179.83	8790.02	-4151.86	-547.82	4187.29	0.00	597204.58	670388.04	
13000.00	90.00	179.83	8790.02	-4251.86	-547.53	4286.60	0.00	597104.58	670388.33	
13100.00	90.00	179.83	8790.02	-4351.86	-547.24	4385.90	0.00	597004.58	670388.62	
13200.00	90.00	179.83	8790.02	-4451.86	-546.94	4485.21	0.00	596904.58	670388.92	
13300.00	90.00	179.83	8790.02	-4551.86	-546.65	4584.52	0.00	596804.58	670389.21	
13400.00	90.00	179.83	8790.02	-4651.86	-546.36	4683.83	0.00	596704.58	670389.50	
13482.92	90.00	179.83	8790.00	-4734.78	-546.09	4766.17	0.00	596621.66	670389.77	Pbhl

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
Lp			8790.00	-570.63	-558.33	600785.81	670377.53	32	39	3.255 N	103	54	50.674 W
Pbhl			8790.00	-4734.78	-546.09	596621.66	670389.77	32	38	22.050 N	103	54	50.723 W



Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company:	Devon Energy	Date:	2/4/2011	Time:	13:13:20	Page:	3
Field:	Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Well: #4H, Grid North				
Site:	Beetle Juice 19 Fed #4H	Vertical (TVD) Reference:	SITE 3423.0				
Well:	#4H	Section (VS) Reference:	Well (0.00N,0.00E,186.58Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
7972.88	7972.88	Kop
8409.07	8368.14	Build/Turn
9318.75	8790.00	Lp
13482.91	8790.02	Pbhl

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy Date: 2/4/2011 Time: 12:55:42 Page: 1
Field: Eddy Co., NM (NAD 83)
Reference Site: Beetle Juice 19 Fed #4H Co-ordinate(NE) Reference: Well: #4H, Grid North
Reference Well: #4H Vertical (TVD) Reference: SITE 3423.0
Reference Wellpath: 1 Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method: MD Interval: 100.00 ft
Depth Range: 0.00 to 13482.92 ft
Maximum Radius: 10000.00 ft

Reference: Plan: Plan #3
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

Plan: Plan #3

Date Composed: 2/4/2011

Principal: Yes

Version: 1

Tied-to: From Surface

Summary

Offset Wellpath			Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Site	Well	Wellpath						
Beetle Juice 19 Fed #3H		1 V0 Plan: Plan #2 V1	7900.00	7899.00	50.06	14.83	1.42	Level 3

Site: Beetle Juice 19 Fed #3H

Well: #3H

Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis		TFO-HS deg	Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Ref ft		ft		ft	ft		North ft	East ft				
0.00	0.00	1.00	-1.00	0.00	0.00	89.61	0.34	50.06	50.06	50.06	59393.50	
100.00	100.00	99.00	99.00	0.08	0.08	89.61	0.34	50.06	50.06	49.89	298.46	
200.00	200.00	199.00	199.00	0.31	0.31	89.61	0.34	50.06	50.06	49.45	81.29	
300.00	300.00	299.00	299.00	0.53	0.53	89.61	0.34	50.06	50.06	49.00	46.99	
400.00	400.00	399.00	399.00	0.76	0.76	89.61	0.34	50.06	50.06	48.55	33.05	
500.00	500.00	499.00	499.00	0.98	0.98	89.61	0.34	50.06	50.06	48.10	25.48	
600.00	600.00	599.00	599.00	1.21	1.21	89.61	0.34	50.06	50.06	47.65	20.74	
700.00	700.00	699.00	699.00	1.43	1.43	89.61	0.34	50.06	50.06	47.20	17.48	
800.00	800.00	799.00	799.00	1.66	1.66	89.61	0.34	50.06	50.06	46.75	15.11	
900.00	900.00	899.00	899.00	1.88	1.88	89.61	0.34	50.06	50.06	46.30	13.30	
1000.00	1000.00	999.00	999.00	2.11	2.10	89.61	0.34	50.06	50.06	45.85	11.89	
1100.00	1100.00	1099.00	1099.00	2.33	2.33	89.61	0.34	50.06	50.06	45.40	10.74	
1200.00	1200.00	1199.00	1199.00	2.56	2.55	89.61	0.34	50.06	50.06	44.95	9.79	
1300.00	1300.00	1299.00	1299.00	2.78	2.78	89.61	0.34	50.06	50.06	44.50	9.00	
1400.00	1400.00	1399.00	1399.00	3.01	3.00	89.61	0.34	50.06	50.06	44.05	8.33	
1500.00	1500.00	1499.00	1499.00	3.23	3.23	89.61	0.34	50.06	50.06	43.60	7.75	
1600.00	1600.00	1599.00	1599.00	3.46	3.45	89.61	0.34	50.06	50.06	43.15	7.25	
1700.00	1700.00	1699.00	1699.00	3.68	3.68	89.61	0.34	50.06	50.06	42.70	6.80	
1800.00	1800.00	1799.00	1799.00	3.91	3.90	89.61	0.34	50.06	50.06	42.25	6.41	
1900.00	1900.00	1899.00	1899.00	4.13	4.13	89.61	0.34	50.06	50.06	41.80	6.06	
2000.00	2000.00	1999.00	1999.00	4.35	4.35	89.61	0.34	50.06	50.06	41.35	5.75	
2100.00	2100.00	2099.00	2099.00	4.58	4.58	89.61	0.34	50.06	50.06	40.90	5.47	
2200.00	2200.00	2199.00	2199.00	4.80	4.80	89.61	0.34	50.06	50.06	40.45	5.21	
2300.00	2300.00	2299.00	2299.00	5.03	5.03	89.61	0.34	50.06	50.06	40.01	4.98	
2400.00	2400.00	2399.00	2399.00	5.25	5.25	89.61	0.34	50.06	50.06	39.56	4.77	
2500.00	2500.00	2499.00	2499.00	5.48	5.48	89.61	0.34	50.06	50.06	39.11	4.57	
2600.00	2600.00	2599.00	2599.00	5.70	5.70	89.61	0.34	50.06	50.06	38.66	4.39	
2700.00	2700.00	2699.00	2699.00	5.93	5.93	89.61	0.34	50.06	50.06	38.21	4.22	
2800.00	2800.00	2799.00	2799.00	6.15	6.15	89.61	0.34	50.06	50.06	37.76	4.07	
2900.00	2900.00	2899.00	2899.00	6.38	6.38	89.61	0.34	50.06	50.06	37.31	3.93	
3000.00	3000.00	2999.00	2999.00	6.60	6.60	89.61	0.34	50.06	50.06	36.86	3.79	
3100.00	3100.00	3099.00	3099.00	6.83	6.83	89.61	0.34	50.06	50.06	36.41	3.67	
3200.00	3200.00	3199.00	3199.00	7.05	7.05	89.61	0.34	50.06	50.06	35.96	3.55	
3300.00	3300.00	3299.00	3299.00	7.28	7.27	89.61	0.34	50.06	50.06	35.51	3.44	
3400.00	3400.00	3399.00	3399.00	7.50	7.50	89.61	0.34	50.06	50.06	35.06	3.34	
3500.00	3500.00	3499.00	3499.00	7.73	7.72	89.61	0.34	50.06	50.06	34.61	3.24	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Beetle Juice 19 Fed #4H
Reference Well: #4H
Reference Wellpath: 1

Date: 2/4/2011 Time: 12:55:42
Co-ordinate(NE) Reference: Well: #4H, Grid North
Vertical (TVD) Reference: SITE 3423.0

Page: 2

Db: Sybase

Site: Beetle Juice 19 Fed #3H
Well: #3H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance	Edge Distance	Separation Factor	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East				
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
3600.00	3600.00	3599.00	3599.00	7.95	7.95	89.61	0.34	50.06	50.06	34.16	3.15	
3700.00	3700.00	3699.00	3699.00	8.18	8.17	89.61	0.34	50.06	50.06	33.71	3.06	
3800.00	3800.00	3799.00	3799.00	8.40	8.40	89.61	0.34	50.06	50.06	33.26	2.98	
3900.00	3900.00	3899.00	3899.00	8.63	8.62	89.61	0.34	50.06	50.06	32.81	2.90	
4000.00	4000.00	3999.00	3999.00	8.85	8.85	89.61	0.34	50.06	50.06	32.36	2.83	
4100.00	4100.00	4099.00	4099.00	9.07	9.07	89.61	0.34	50.06	50.06	31.91	2.76	
4200.00	4200.00	4199.00	4199.00	9.30	9.30	89.61	0.34	50.06	50.06	31.46	2.69	
4300.00	4300.00	4299.00	4299.00	9.52	9.52	89.61	0.34	50.06	50.06	31.01	2.63	
4400.00	4400.00	4399.00	4399.00	9.75	9.75	89.61	0.34	50.06	50.06	30.56	2.57	
4500.00	4500.00	4499.00	4499.00	9.97	9.97	89.61	0.34	50.06	50.06	30.12	2.51	
4600.00	4600.00	4599.00	4599.00	10.20	10.20	89.61	0.34	50.06	50.06	29.67	2.45	
4700.00	4700.00	4699.00	4699.00	10.42	10.42	89.61	0.34	50.06	50.06	29.22	2.40	
4800.00	4800.00	4799.00	4799.00	10.65	10.65	89.61	0.34	50.06	50.06	28.77	2.35	
4900.00	4900.00	4899.00	4899.00	10.87	10.87	89.61	0.34	50.06	50.06	28.32	2.30	
5000.00	5000.00	4999.00	4999.00	11.10	11.10	89.61	0.34	50.06	50.06	27.87	2.26	
5100.00	5100.00	5099.00	5099.00	11.32	11.32	89.61	0.34	50.06	50.06	27.42	2.21	
5200.00	5200.00	5199.00	5199.00	11.55	11.55	89.61	0.34	50.06	50.06	26.97	2.17	
5300.00	5300.00	5299.00	5299.00	11.77	11.77	89.61	0.34	50.06	50.06	26.52	2.13	
5400.00	5400.00	5399.00	5399.00	12.00	11.99	89.61	0.34	50.06	50.06	26.07	2.09	
5500.00	5500.00	5499.00	5499.00	12.22	12.22	89.61	0.34	50.06	50.06	25.62	2.05	
5600.00	5600.00	5599.00	5599.00	12.45	12.44	89.61	0.34	50.06	50.06	25.17	2.01	
5700.00	5700.00	5699.00	5699.00	12.67	12.67	89.61	0.34	50.06	50.06	24.72	1.98	
5800.00	5800.00	5799.00	5799.00	12.90	12.89	89.61	0.34	50.06	50.06	24.27	1.94	
5900.00	5900.00	5899.00	5899.00	13.12	13.12	89.61	0.34	50.06	50.06	23.82	1.91	
6000.00	6000.00	5999.00	5999.00	13.35	13.34	89.61	0.34	50.06	50.06	23.37	1.88	
6100.00	6100.00	6099.00	6099.00	13.57	13.57	89.61	0.34	50.06	50.06	22.92	1.84	
6200.00	6200.00	6199.00	6199.00	13.80	13.79	89.61	0.34	50.06	50.06	22.47	1.81	
6300.00	6300.00	6299.00	6299.00	14.02	14.02	89.61	0.34	50.06	50.06	22.02	1.79	
6400.00	6400.00	6399.00	6399.00	14.24	14.24	89.61	0.34	50.06	50.06	21.57	1.76	
6500.00	6500.00	6499.00	6499.00	14.47	14.47	89.61	0.34	50.06	50.06	21.12	1.73	
6600.00	6600.00	6599.00	6599.00	14.69	14.69	89.61	0.34	50.06	50.06	20.68	1.70	
6700.00	6700.00	6699.00	6699.00	14.92	14.92	89.61	0.34	50.06	50.06	20.23	1.68	
6800.00	6800.00	6799.00	6799.00	15.14	15.14	89.61	0.34	50.06	50.06	19.78	1.65	
6900.00	6900.00	6899.00	6899.00	15.37	15.37	89.61	0.34	50.06	50.06	19.33	1.63	
7000.00	7000.00	6999.00	6999.00	15.59	15.59	89.61	0.34	50.06	50.06	18.88	1.61	
7100.00	7100.00	7099.00	7099.00	15.82	15.82	89.61	0.34	50.06	50.06	18.43	1.58	
7200.00	7200.00	7199.00	7199.00	16.04	16.04	89.61	0.34	50.06	50.06	17.98	1.56	
7300.00	7300.00	7299.00	7299.00	16.27	16.27	89.61	0.34	50.06	50.06	17.53	1.54	
7400.00	7400.00	7399.00	7399.00	16.49	16.49	89.61	0.34	50.06	50.06	17.08	1.52	
7500.00	7500.00	7499.00	7499.00	16.72	16.71	89.61	0.34	50.06	50.06	16.63	1.50	Level 3
7600.00	7600.00	7599.00	7599.00	16.94	16.94	89.61	0.34	50.06	50.06	16.18	1.48	Level 3
7700.00	7700.00	7699.00	7699.00	17.17	17.16	89.61	0.34	50.06	50.06	15.73	1.46	Level 3
7800.00	7800.00	7799.00	7799.00	17.39	17.39	89.61	0.34	50.06	50.06	15.28	1.44	Level 3
7900.00	7900.00	7899.00	7899.00	17.62	17.61	89.61	0.34	50.06	50.06	14.83	1.42	Level 3
8000.00	7999.99	7998.99	7998.99	17.84	17.84	178.39	0.34	50.06	50.70	15.04	1.42	Level 3
8100.00	8098.96	8097.96	8097.96	18.03	18.06	178.70	0.34	50.06	64.10	28.32	1.79	
8200.00	8194.10	8193.10	8193.10	18.22	18.27	179.07	0.34	50.06	94.48	58.97	2.66	
8300.00	8282.52	8275.43	8275.42	18.45	18.45	179.44	0.04	50.57	141.56	106.71	4.06	
8400.00	8361.53	8330.61	8330.25	18.76	18.56	180.78	-3.00	55.65	209.87	176.13	6.22	
8500.00	8433.78	8371.17	8369.93	19.22	18.63	202.21	-7.30	62.83	290.40	256.21	8.49	
8600.00	8504.20	8405.37	8402.72	19.73	18.70	222.93	-12.25	71.12	372.82	337.34	10.51	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Beetle Juice 19 Fed #4H
Reference Well: #4H
Reference Wellpath: 1

Date: 2/4/2011

Time: 12:55:42

Page: 3

Co-ordinate(NE) Reference: Well: #4H, Grid North
Vertical (TVD) Reference: SITE 3423.0

Db: Sybase

Site: Beetle Juice 19 Fed #3H

Well: #3H

Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
8700.00	8570.71	8434.77	8430.31	20.24	18.76	240.60	-17.46	79.83	455.19	418.26	12.33	
8800.00	8631.27	8463.30	8456.44	20.72	18.81	254.75	-23.35	89.64	536.23	498.03	14.04	
8900.00	8684.05	8522.14	8508.72	21.16	18.92	262.70	-40.11	110.70	613.38	574.11	15.62	
9000.00	8727.44	8600.44	8574.27	21.55	19.08	267.37	-72.87	138.05	683.97	643.77	17.01	
9100.00	8760.13	8714.22	8658.02	21.90	19.39	269.14	-139.98	175.01	745.05	703.93	18.12	
9200.00	8781.12	8887.67	8750.15	22.20	20.10	269.05	-278.42	220.86	791.10	748.81	18.71	
9300.00	8789.78	9101.90	8790.10	22.46	21.44	269.77	-484.71	252.47	813.42	769.53	18.53	
9400.00	8790.00	9201.56	8790.80	23.22	22.29	269.87	-584.02	260.70	821.60	776.11	18.06	
9500.00	8790.00	9301.24	8791.50	24.18	23.25	269.83	-683.36	268.93	829.56	782.16	17.50	
9600.00	8790.00	9400.92	8792.20	25.23	24.32	269.78	-782.70	277.16	837.53	788.01	16.91	
9700.00	8790.00	9500.60	8792.91	26.36	25.48	269.73	-882.03	285.39	845.50	793.68	16.31	
9800.00	8790.00	9600.28	8793.61	27.58	26.72	269.69	-981.37	293.62	853.47	799.19	15.72	
9900.00	8790.00	9699.96	8794.31	28.85	28.03	269.65	-1080.71	301.85	861.44	804.58	15.15	
10000.00	8790.00	9799.64	8795.01	30.19	29.40	269.60	-1180.05	310.08	869.41	809.84	14.60	
10100.00	8790.00	9899.32	8795.71	31.57	30.82	269.56	-1279.38	318.31	877.38	815.01	14.07	
10200.00	8790.00	9999.00	8796.41	33.00	32.28	269.52	-1378.72	326.54	885.35	820.09	13.57	
10300.00	8790.01	10098.68	8797.11	34.46	33.79	269.48	-1478.06	334.78	893.32	825.09	13.09	
10400.00	8790.01	10198.36	8797.81	35.96	35.32	269.44	-1577.39	343.01	901.29	830.03	12.65	
10500.00	8790.01	10298.04	8798.51	37.49	36.89	269.40	-1676.73	351.24	909.26	834.90	12.23	
10600.00	8790.01	10397.72	8799.21	39.04	38.48	269.36	-1776.07	359.47	917.23	839.73	11.83	
10700.00	8790.01	10497.40	8799.91	40.62	40.10	269.32	-1875.40	367.70	925.21	844.51	11.46	
10800.00	8790.01	10597.07	8800.61	42.22	41.74	269.29	-1974.74	375.93	933.18	849.24	11.12	
10900.00	8790.01	10696.75	8801.31	43.83	43.39	269.25	-2074.08	384.16	941.15	853.95	10.79	
11000.00	8790.01	10796.43	8802.01	45.46	45.06	269.21	-2173.41	392.39	949.13	858.62	10.49	
11100.00	8790.01	10896.11	8802.72	47.11	46.74	269.18	-2272.75	400.62	957.10	863.26	10.20	
11200.00	8790.01	10995.79	8803.42	48.77	48.44	269.14	-2372.09	408.85	965.08	867.88	9.93	
11300.00	8790.01	11095.47	8804.12	50.44	50.15	269.11	-2471.43	417.08	973.05	872.47	9.67	
11400.00	8790.01	11195.15	8804.82	52.13	51.87	269.07	-2570.76	425.32	981.03	877.05	9.43	
11500.00	8790.01	11294.83	8805.52	53.82	53.60	269.04	-2670.10	433.55	989.00	881.60	9.21	
11600.00	8790.01	11394.51	8806.22	55.52	55.33	269.01	-2769.44	441.78	996.98	886.14	9.00	
11700.00	8790.01	11494.19	8806.92	57.23	57.08	268.98	-2868.77	450.01	1004.95	890.66	8.79	
11800.00	8790.01	11593.87	8807.62	58.95	58.83	268.94	-2968.11	458.24	1012.93	895.17	8.60	
11900.00	8790.01	11693.55	8808.32	60.67	60.59	268.91	-3067.45	466.47	1020.91	899.67	8.42	
12000.00	8790.01	11793.23	8809.02	62.40	62.35	268.88	-3166.78	474.70	1028.88	904.15	8.25	
12100.00	8790.01	11892.91	8809.72	64.13	64.12	268.85	-3266.12	482.93	1036.86	908.63	8.09	
12200.00	8790.01	11992.59	8810.42	65.87	65.89	268.82	-3365.46	491.16	1044.84	913.09	7.93	
12300.00	8790.02	12092.27	8811.12	67.62	67.67	268.79	-3464.79	499.39	1052.82	917.55	7.78	
12400.00	8790.02	12191.95	8811.83	69.37	69.45	268.76	-3564.13	507.62	1060.80	922.00	7.64	
12500.00	8790.02	12291.63	8812.53	71.12	71.24	268.74	-3663.47	515.86	1068.77	926.43	7.51	
12600.00	8790.02	12391.31	8813.23	72.88	73.03	268.71	-3762.81	524.09	1076.75	930.87	7.38	
12700.00	8790.02	12490.99	8813.93	74.64	74.83	268.68	-3862.14	532.32	1084.73	935.29	7.26	
12800.00	8790.02	12590.67	8814.63	76.40	76.62	268.65	-3961.48	540.55	1092.71	939.71	7.14	
12900.00	8790.02	12690.35	8815.33	78.17	78.42	268.63	-4060.82	548.78	1100.69	944.13	7.03	
13000.00	8790.02	12790.03	8816.03	79.94	80.22	268.60	-4160.15	557.01	1108.67	948.54	6.92	
13100.00	8790.02	12889.71	8816.73	81.72	82.03	268.57	-4259.49	565.24	1116.65	952.94	6.82	
13200.00	8790.02	12989.39	8817.43	83.49	83.84	268.55	-4358.83	573.47	1124.63	957.34	6.72	
13300.00	8790.02	13089.07	8818.13	85.27	85.65	268.52	-4458.16	581.70	1132.61	961.73	6.63	
13400.00	8790.02	13188.75	8818.83	87.05	87.46	268.50	-4557.50	589.93	1140.59	966.12	6.54	
13482.92	8790.00	13271.40	8819.41	88.53	88.96	268.48	-4639.87	596.76	1147.19	969.74	6.46	

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.1.000

Report Date: January 18, 2011
Job Number: _____
Customer: DEVON
Well Name: Beetle Juice 19 Fed #4H
API Number: _____
Rig Name: _____
Location: EDDY COUNTY, NM
Block: _____
Engineer: LW

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 601356.440 USFT	Latitude 32.6524698 DEG
East/West 670935.860 USFT	Longitude -103.9122504 DEG
Grid Convergence: .22721261°	
Total Correction: +7.5295°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude = 32.65247° N	32° 39 min 8.891 sec	
Longitude = 103.91225° W	103° 54 min 44.102 sec	

Magnetic Declination =	7.7570°	[True North Offset]
Local Gravity =	.9988 g	
Local Field Strength =	48842 nT	Magnetic Vector X = 23816 nT
Magnetic Dip =	60.5210°	Magnetic Vector Y = 3244 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42519 nT
Spud Date =	Aug 15, 2011	Magnetic Vector H = 24036 nT

Signed: _____

Date: _____

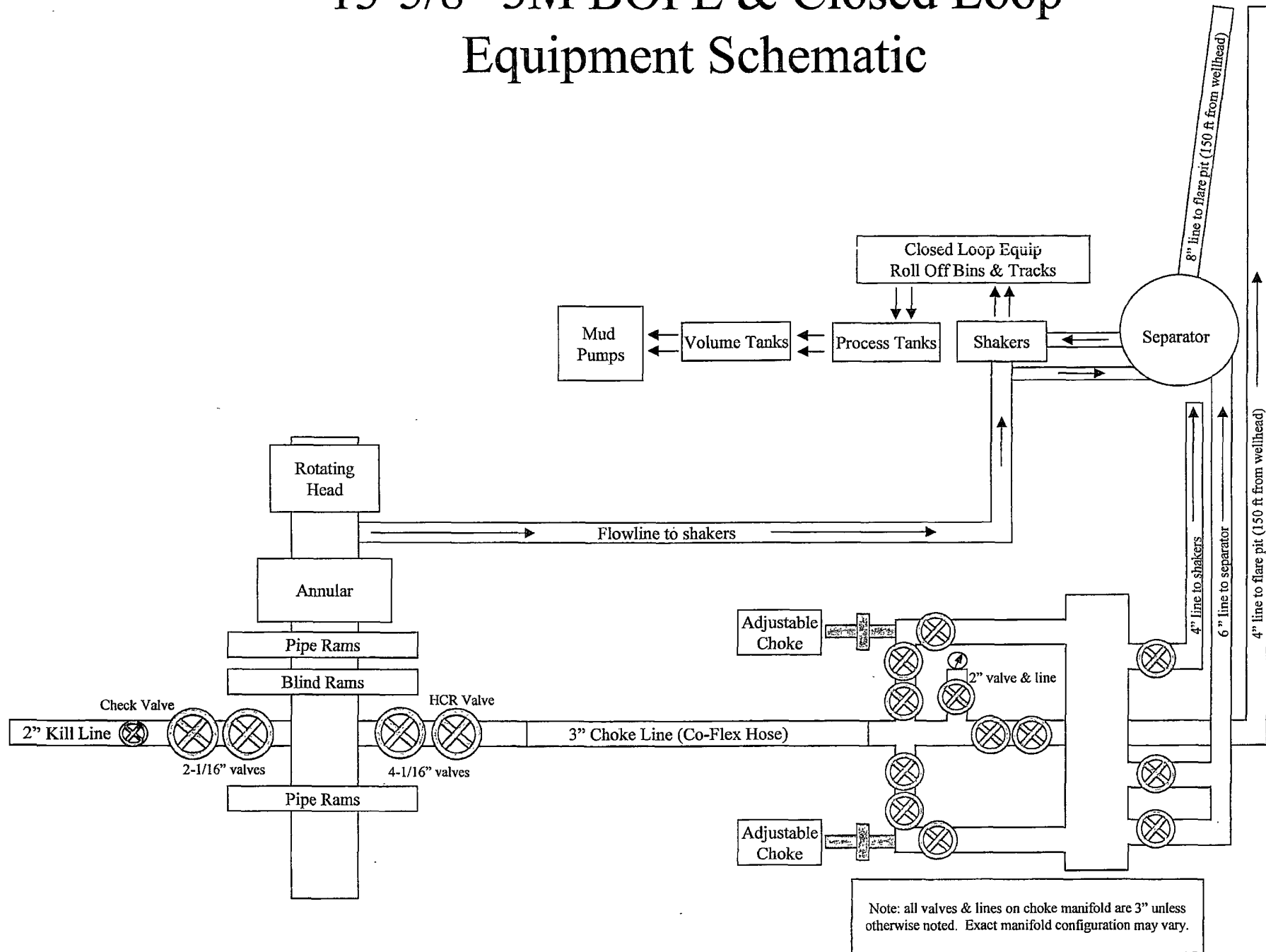
Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Devon Energy Production Company, LP

Beetle Juice 19 Federal 4H

Surface Location: 220' FNL & 1450' FWL, Unit C, Sec 19 T19S R31E, Eddy, NM
Bottom hole Location: 330' FSL & 890' FWL, Unit M, Sec 19 T19S R31E, 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 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 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.

13-5/8" 3M BOPE & Closed Loop Equipment Schematic



DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator DEVON ENERGY PROD CO LP OGRID # 6137
 Well Name & # 38405 BEETLE JUICE 19 FEB # 4 H Surface Type (F) (S) (P)
 Location: UL C, Sect 19, Twnship 9 s, RNG 31 e, Sub-surface Type (F) (S) (P)
M 19 19-31

A. Date C101 rec'd / / C101 reviewed / /

B. 1. Check mark, Information is OK on Forms:

OGRID X, BONDING FED, PROP CODE X, WELL # X, SIGNATURE

2. Inactive Well list as of: 7/22/11 # wells 1585 # Inactive wells 4

a. District Grant APD but see number of inactive wells:

No letter required X, Sent Letter to Operator , to Santa Fe

3. Additional Bonding as of: 7/22/11

a. District Denial because operator needs addition bonding:

No Letter required X, Sent Letter to Operator , To Santa Fe

b. District Denial because of inactive well list and Financial Assurance:

No Letter required X, Sent Letter to Operator , To Santa Fe

C. C102 YES , NO , Signature

1. Pool HACKBERRY; AS NW, Code 97020

a. Dedicated acreage 160, What Units DELM

b. SUR. Location Standard : Non-Standard Location AP Standard

c. Well shares acres: Yes , No , # of wells plus this well #

2. 2nd. Operator in same acreage, Yes , No

Agreement Letter , Disagreement letter

3. Intent to Directional Drill Yes X, No

a. Dedicated acreage 160, What Units DELM

b. Bottomhole Location Standard , Non-Standard Bottomhole

4. Downhole Commingle: Yes , No X

a. Pool #2 , Code , Acres

Pool #3 , Code , Acres

Pool #4 , Code , Acres

5. POTASH Area Yes , No FED

D. Blowout Preventer Yes X, No

E. H2S Yes X, No

F. C144 Pit Registration Yes , No

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes , No X, NSL #

2. Non-Standard Proration: Yes , No , NSP #

3. Simultaneous Dedication: Yes , No , SD #

Number of wells Plus #

4. Injection order Yes , No ; PMX # or WEX #

5. SWD order Yes , NO ; SWD #

6. DHC from SF ; DHC-HOB ; Holding

7. OCD Approval Date / /

API #30-0 15 -- 39232

8. Reviewers