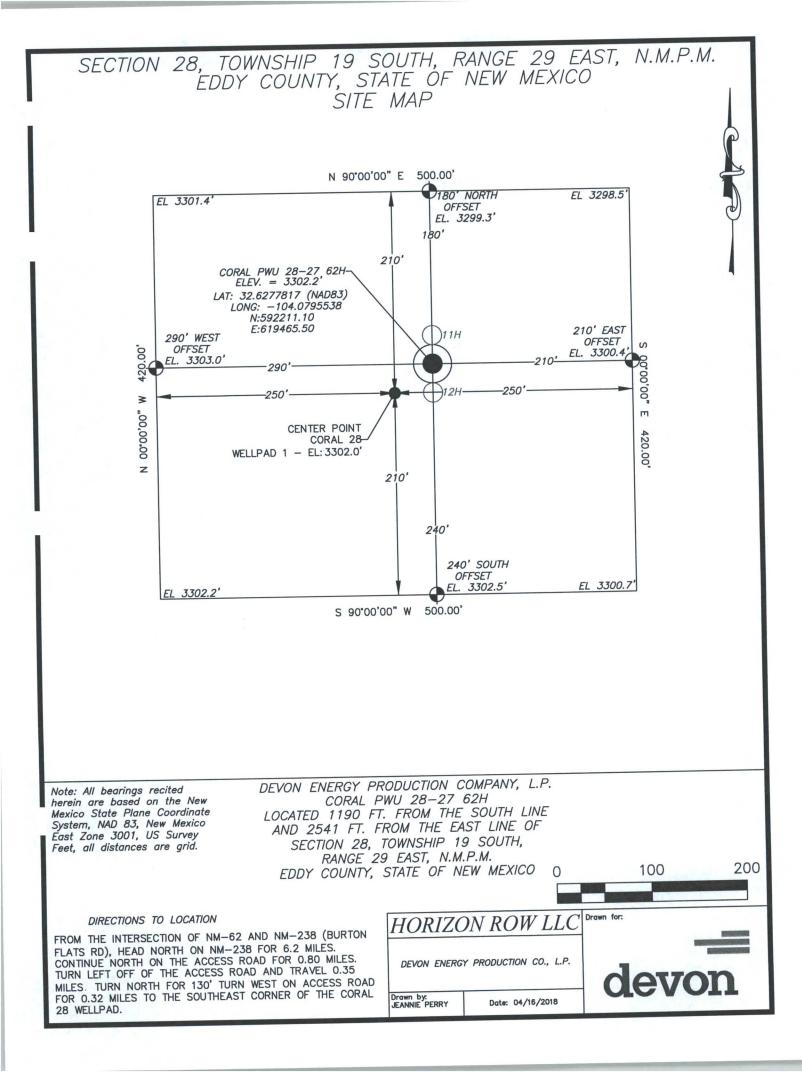
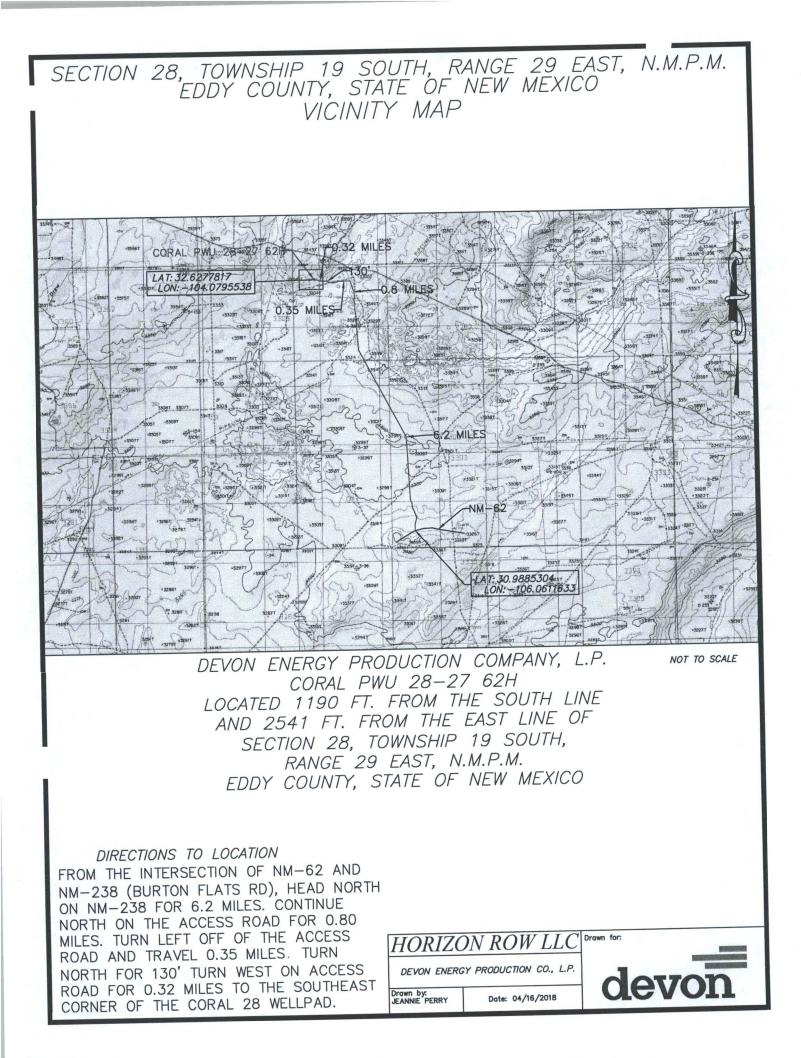
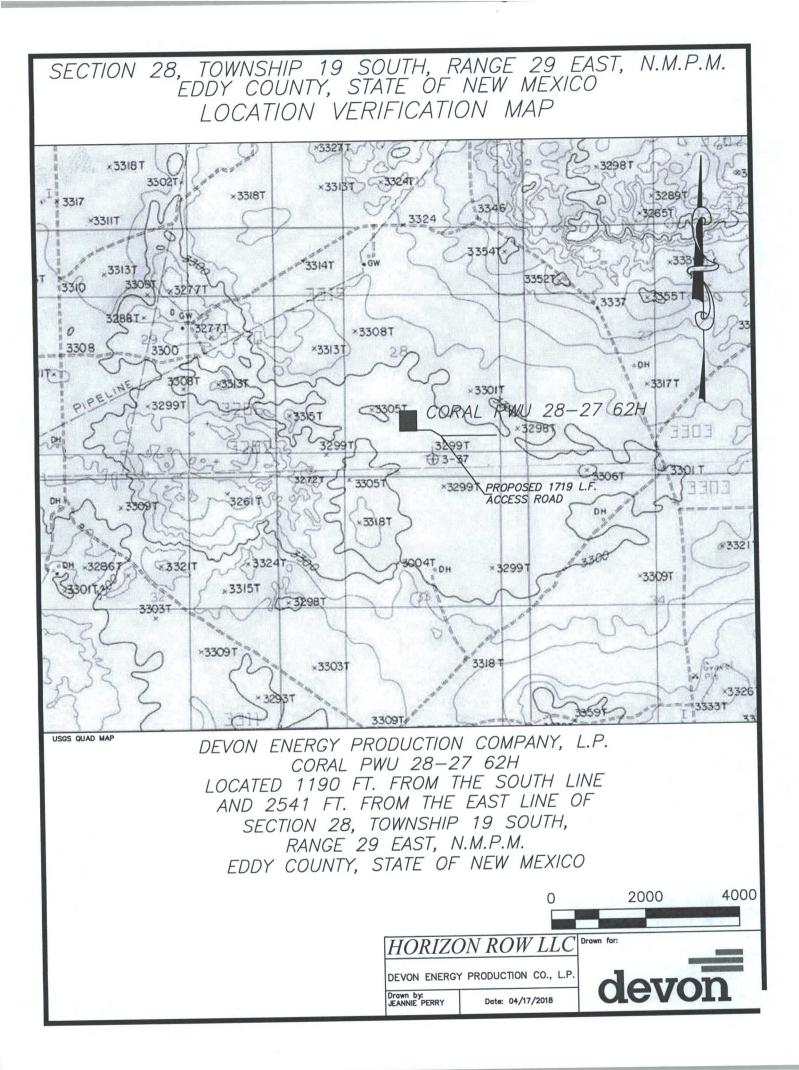
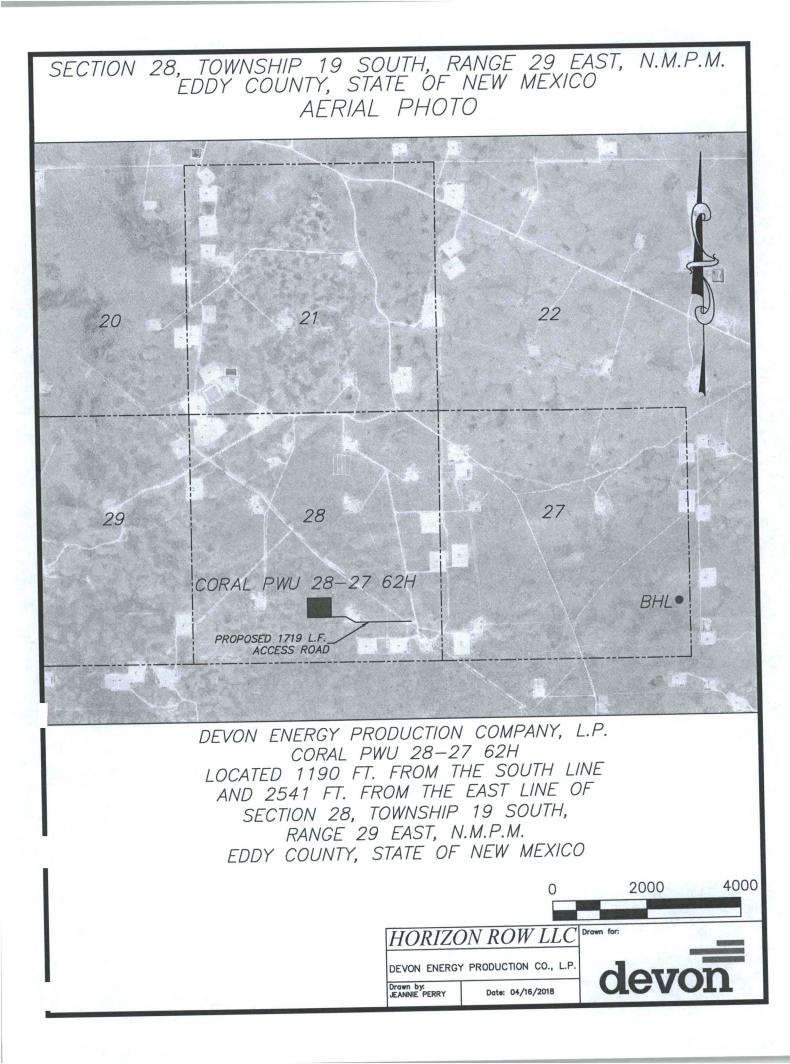


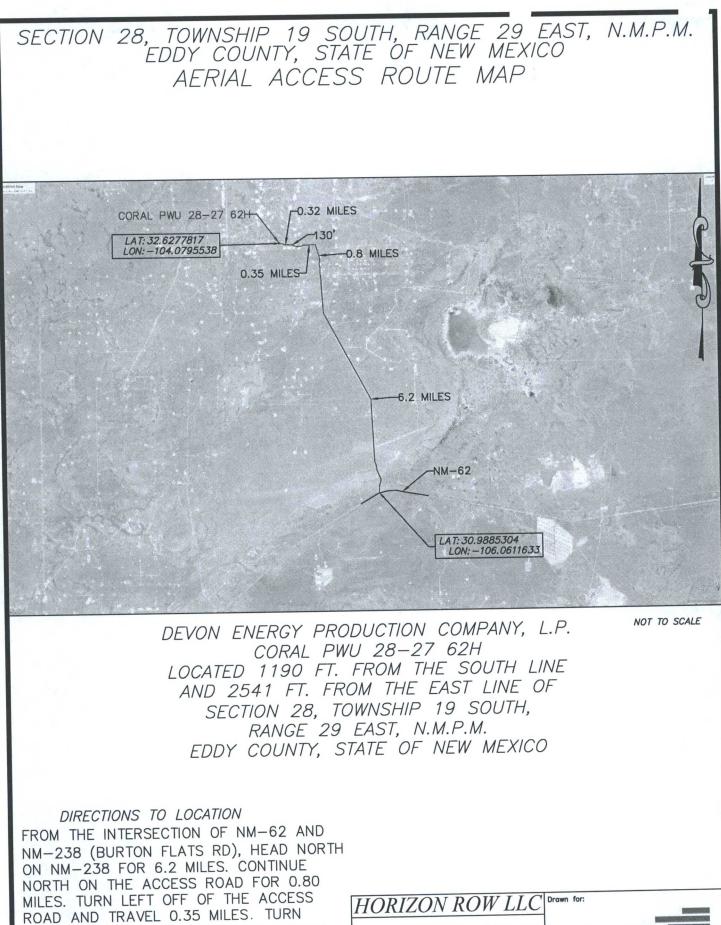
First Take Point(9201' MD): 1204' FLS, 2671' FEL Last Take Point (16842'): 1210' FSL, 330' FEL







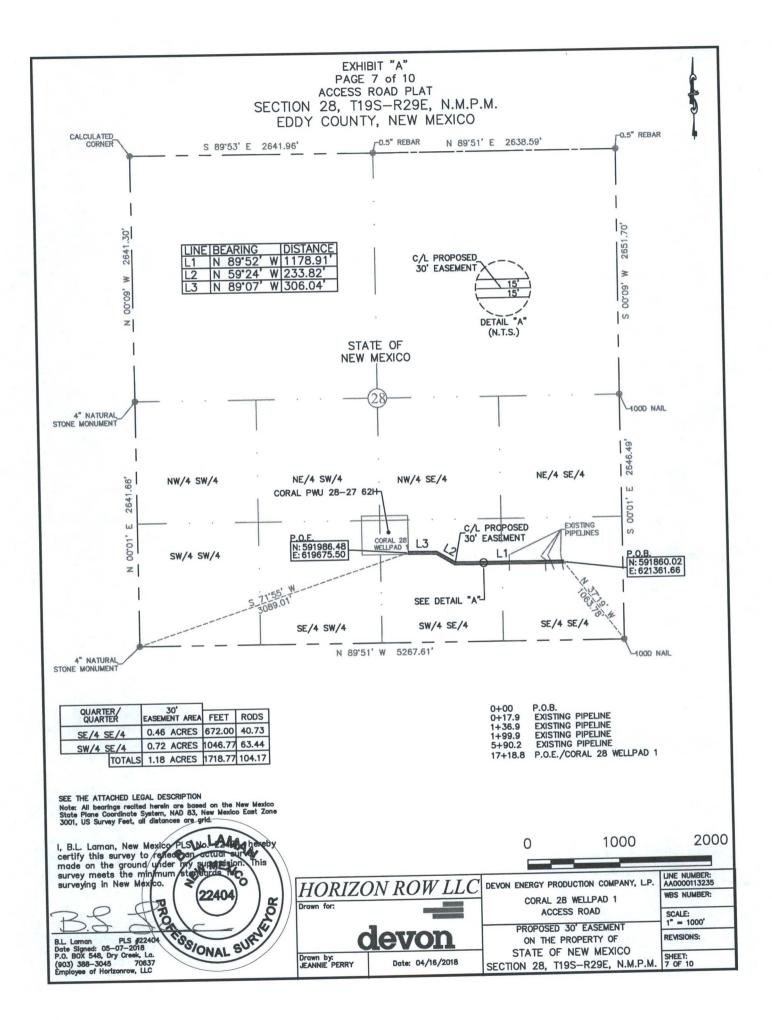




NORTH FOR 130' TURN WEST ON ACCESS DEVON ENERGY PRODUCTION CO., L.P. ROAD FOR 0.32 MILES TO THE SOUTHEAST Drawn by: JEANNIE PERRY Date: 04/16/2018

CORNER OF THE CORAL 28 WELLPAD.

devor



### SECTION 28, T19S-R29E, N.M.P.M., EDDY COUNTY, NEW MEXICO

#### ACCESS ROAD PLAT

### LEGAL DESCRIPTION

#### FOR

## **DEVON ENERGY PRODUCTION COMPANY, L.P.**

#### **STATE OF NEW MEXICO**

#### **30' EASEMENT DESCRIPTION:**

**BEING** an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the southeast quarter of the southeast quarter (SE <sup>1</sup>/<sub>4</sub>, SE <sup>1</sup>/<sub>4</sub>) and the southwest quarter of the southeast quarter (SW <sup>1</sup>/<sub>4</sub>, SE <sup>1</sup>/<sub>4</sub>) of Section 28, Township 19 South, Range 29 East, N.M.P.M., Eddy County, New Mexico, and being out of a parcel of land owned the State of New Mexico, said centerline of easement being more particularly described as follows:

Commencing from a 100D nail found for the southeast corner of Section 28, T219-R29E, N.M.P.M., Eddy County, New Mexico;

Thence N 37°19' W, a distance of 1063.78' to the **Point of Beginning** of this easement having coordinates of Northing=591860.02 feet, Easting=621361.66 feet and continuing the following courses;

Thence N 89°52' W, a distance of 1178.91' to an angle point;

Thence N 59°24' W, a distance of 233.82' to an angle point;

Thence N 89°07' W, a distance of 306.04' to the **Point of Ending** having coordinates of Northing=591986.48 feet, Easting=619675.50 feet, from said point a 4" natural stone monument found for the southwest corner of Section 28, T19S-R29E, N.M.P.M., Lea County, New Mexico bears S 71°55' W a distance of 3089.01', covering **1718.77' or 104.17 rods** and having an area of **1.18 acres**.

#### **NOTES:**

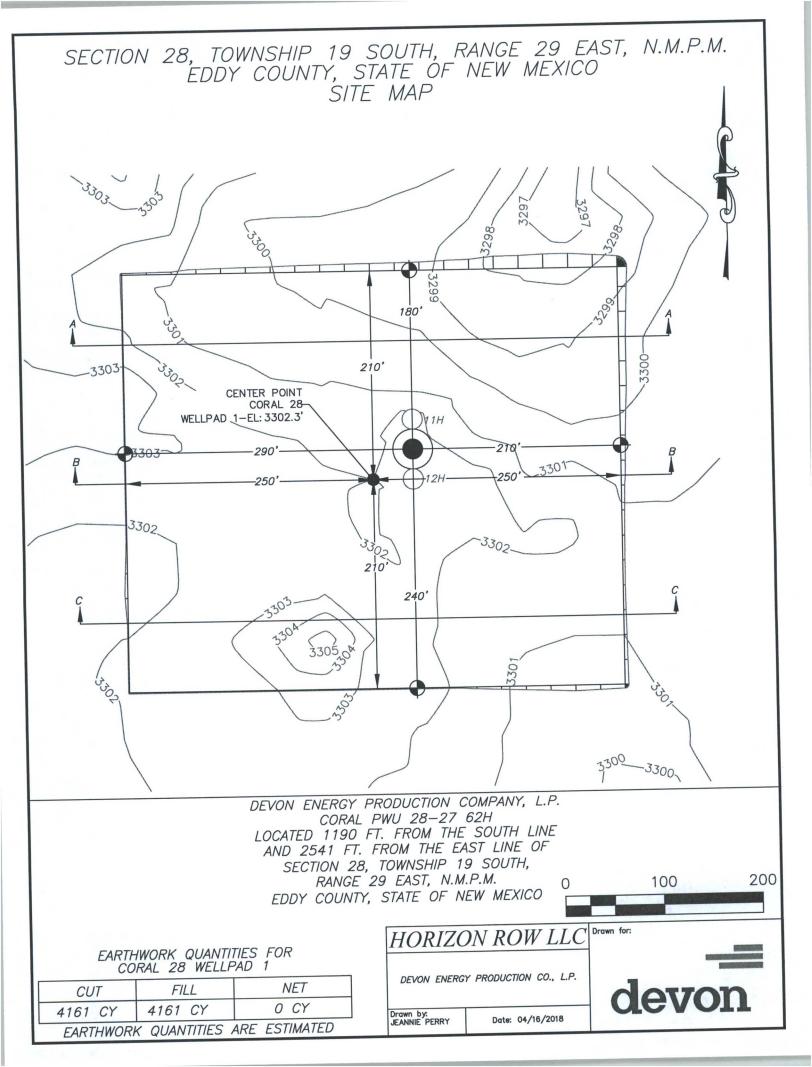
Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

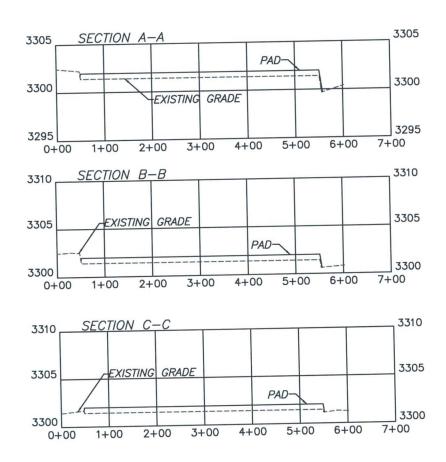
B.L. Laman PLS 22404 Date Signed: 05/07/2018 Horizon Row, LLC P.O. Box 548, Dry Creek, LA (903) 388-3045 70637 Employee of Horizon Row, LLC



Sheet 8 of 10



SECTION 28, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO CROSS SECTIONS



DEVON ENERGY PRODUCTION COMPANY, L.P. CORAL PWU 28–27 62H LOCATED 1190 FT. FROM THE SOUTH LINE AND 2541 FT. FROM THE EAST LINE OF SECTION 28, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

SCALE 1" = 200' HORIZONTAL SCALE 1" = 5' VERTICAL Drawn for: HORIZON ROW LLC EARTHWORK QUANTITIES FOR CORAL 28 WELLPAD 1 DEVON ENERGY PRODUCTION CO., L.P. NET FILL CUT devon 4161 CY 0 CY 4161 CY Drawn by: JEANNIE PERRY EARTHWORK QUANTITIES ARE ESTIMATED Date: 04/16/2018

# Devon Energy, Coral PWU 28-27 62H

NM OIL CONSERVATION ARTESIA DISTRICT

# 1. Geologic Formations

MAY 10 2018

TVD of target	9150	Pilot hole depth	N/A RECEIVED
MD at TD:	16941	Deepest expected fresh water:	RECEIVED

# Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	0		
Rustler	40		
Top of Salt	350		
Tansill	1065		
Yates	1230		
Seven Rivers	1520		
Delaware Group	3290		
Lower Brushy	4985		
1st Bone Spring Lime	5210		
1st Bone Spring Sand	6970		
2nd Bone Spring Lime	7075		
2nd Bone Spring Sand	7675		
3rd Bone Spring Lime	7990		
3rd Bone Spring Sand	8675		
Wolfcamp	9200		

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

## 2. Casing Program

Hole Size	Casing Interval		Csg.	Weight	Grade	Conn.	
	From	То	Size	(lbs)			
20"	0	200	13.375"	48	H-40	STC	
12.25"	0	3,390	9.625"	36	J-55	LTC	
8.75"	0	16,941	5.5"	17	P-110	BTC	
				Collapse:	Burst:	Tension: 1.6 Dry	
BLM Minir	num Safet	ty Factor		1.125	1.00	1.8 Wet	

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.

Must have table for contingency casing

	Y or N
s casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
s premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide ustification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
	N
Is well located within Capitan Reef? If yes, does production casing cement tie back a minimum of 50' above the Reef? Is well within the designated 4 string boundary.	
	N
Is well located in SOPA but not in R-111-P? If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
	N
Is well located in R-111-P and SOPA? If yes, are the first three strings cemented to surface? Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
	N
Is well located in high Cave/Karst?	
If yes, are there two strings cemented to surface? (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	R. S.
(For 2 string weils) If yes, is there a contingency casing it test encounter	N
Is well located in critical Cave/Karst?	IN
If yes, are there three strings cemented to surface?	

VorN

Casing	# Sks	g Progra Wt. Ib/ gal	H₂0 gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
13-3/8"						
Surface	226	14.8	6.368	1.33	4 hr 48 mn	C + Adds
9-5/8"	488	12.5	10.654	1.94	31 hr 40 mn	35:65 Poz:C + Adds
Inter.	294	14.8	6.352	1.33	6 hr 48 mn	C + Adds
5-1/2"	655	10.5	15.442	2.43	19 hr 3 mn	C + Adds
Prod	1769	14.5	5.175	1.2	9 hr 6 mn	50:50 Poz:H + Adds

### t' --- Due gue m

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

e i Chrise	TOC	% Excess
Casing String	0'	25%
13-3/8" Surface	0'	25%
9-5/8" Intermediate	2200'	10%
5-1/2" Production Casing	2390'	

# 4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. schematic.	See attached for
IN	schematic.	

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		*	Tested to:
			Annul		X	50% of working pressure
			Blind R	am		
12-1/4"	13-5/8"	3M	Pipe Ra	am		3M
			Double Ram		X	2112
			Other*			-
		" 3M	Annular		X	50% testing pressure
			Blind Ram			
	10 5/02		Pipe Ram			
8-3/4"	13-5/8"		Double	Ram	X	3M
			Other *			
			Annu	lar		
			Blind F	Ram		
			Pipe Ram			-
			Double			
			Other			
			*			

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

	A variance is requested for the use of a flexible choke line from the BOP to Choke
Y	Manifold. See attached for specs and hydrostatic test chart.
1	V Are anchors required by manufacturer?
Y	A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.
	<ul> <li>Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.</li> <li>Wellhead will be installed by wellhead representatives.</li> <li>If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.</li> <li>Wellhead company will install the test plug for the initial BOP test.</li> <li>Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the packoff, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.</li> <li>If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.</li> <li>Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.</li> <li>Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.</li> </ul>
	<ul> <li>After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2.</li> <li>If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.</li> <li>After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead.</li> <li>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.</li> </ul>

# Devon Energy, Coral PWU 28-27 62H

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

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.

### 5. Mud Program

of Infant I	Depth	Туре	Weight (ppg)	Viscosity	Water Loss
From	То				21/0
0	200	FW Gel	8.6-8.8	28-34	N/C
200	3390	Saturated Brine	10.0-10.2	28-34	N/C
3390	TD	Cut Brine	8.5-8.7	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain	PVT/Pason/Visual Monitoring
of fluid?	

# 6. Logging and Testing Procedures

Log	ging, Coring and Testing.
x	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole).
	Stated logs run will be in the Completion Report and submitted to the BLM.
1	No Logs are planned based on well control or offset log information.
	No Logs are plained based on wen contact of the
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

## Devon Energy, Coral PWU 28-27 62H

### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4140 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

 N
 H2S is present

 Y
 H2S Plan attached

### 8. Other facets of operation

Will be pre-setting casing? Yes

- 1. Spudder rig will move in and drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
- After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- The wellhead will be installed and tested once the 13-3/8" surface casing is cut off and the WOC time has been reached.
- 4. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore.Pressure will be monitored with a pressure gauge installed on the wellhead.
- Spudder rig operations is expected to take 4-5 days per well on a multi well pad.
- Spudder rig operations is expected to take r e table per visit of commencing spudder rig operations.
   The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- Drilling operations will be performed with the drilling rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Is this a walking operation? Yes Will be pre-setting casing? Yes

Attachments <u>x</u> Directional Plan Other, describe