

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**SUNDRY NOTICES AND REPORTS ON WELLS**

**OCD-ARTESIA**

FORM APPROVED  
OMB NO. 1004-0135  
EXPIRES: March 31, 2007

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals

SUBMIT IN TRIPLICATE

**RECEIVED**

**JUN 24 2010**

**NMOCD ARTESIA**

5. Lease Serial No.	<b>NM-77046</b>
6. If Indian, Allottee or Tribe Name	
7. Unit or CA Agreement Name and No.	
8. Well Name and No.	<b>North Pure Gold 8 Federal 13</b>
9. API Well No.	<b>30-015-37651</b>
10. Field and Pool, or Exploratory	<b>Upper Penn</b>
11. County or Parish State	<b>Eddy NM</b>

**12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**


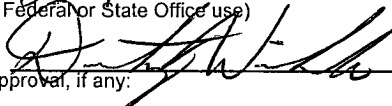
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>Cementing</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work and approximate duration thereof. If the proposal deepens directionally or recompletes horizontally, give subsurface location and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirement, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Devon Energy Production Company, L. P. will do a three stage cement job that will be required to bring cement to surface for the 12 1/4" hole section. The BJ Cement Proposal #215855725B attachment shows the cement volumes and the stage tool placements. This project may occur within the next 5 to 6 days.**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct

Signed 	Name <b>Judy A. Barnett</b>	Title <b>Regulatory Analyst</b>	Date <b>5/10/2010</b>
(This space for Federal or State Office use)			
Approved by 	Title <b>/s/ Dustin Winkler</b>	Date	
Conditions of approval, if any:			
BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE			

\*See Instruction on Reverse Side



Proposal No: 215855725B

**Devon Energy Corp**  
**North Pure Gold 8 Federal 13**

Eddy County, New Mexico  
June 3, 2010

**Cement Recommendation**

**Prepared for:**

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

**Prepared by:**

John Parks  
Region Technical Rep.  
Oklahoma City, Oklahoma  
Bus Phone: (405) 228-4302



**Service Point:**

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

**Service Representatives:**

Larry Johnson  
Senior Sales Rep  
Artesia, New Mexico

**Operator Name:** Devon Energy Corp  
**Well Name:** North Pure Gold 8 Federal 13  
**Job Description:** 2nd Intermediate Casing  
**Date:** June 3, 2010



**Proposal No:** 215855725B

## **JOB AT A GLANCE**

<b>Depth (TVD)</b>	11,100 ft
<b>Depth (MD)</b>	11,100 ft
<b>Hole Size</b>	12.25 in
<b>Casing Size/Weight :</b>	9 5/8 in, 53.5 lbs/ft
<b>Pump Via</b>	9 5/8" O.D. (8.535" I.D) 53.5 #
<b>Total Mix Water Required</b>	32,915 gals
<b>Stage No: 1</b>	<b>Float Collar set @</b> 11,060 ft
<b>Spacer</b>	
<b>Fresh Water</b>	20 bbls
<b>Density</b>	8.3 ppg
<b>Spacer</b>	
<b>Surebond III</b>	1,000 gals
<b>Density</b>	9.4 ppg
<b>Spacer</b>	
<b>Fresh Water</b>	10 bbls
<b>Density</b>	8.3 ppg
<b>Lead Slurry</b>	
<b>35:65:6 Poz:Class H</b>	1,100 sacks
<b>Density</b>	12.5 ppg
<b>Yield</b>	1.99 cf/sack
<b>Tail Slurry</b>	
<b>Super H Modified</b>	830 sacks
<b>Density</b>	13.3 ppg
<b>Yield</b>	1.60 cf/sack
<b>Displacement</b>	
<b>Displacement Fluid</b>	783 bbls

**JOB AT A GLANCE (Continued)**

Displacement Fluid 177 bbls

**Operator Name:** Devon Energy Corp  
**Well Name:** North Pure Gold 8 Federal 13  
**Job Description:** 2nd Intermediate Casing  
**Date:** June 3, 2010



**Proposal No:** 215855725B

## WELL DATA

### ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.715 CASING	4,000	4,000
12.250 HOLE	11,100	11,100

### SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
9.625	8.535	53.5	11,100	11,100

**STAGE: 1**      **Float Collar set @**      11,060 ft.  
                  **Mud Density**      9.10 ppg  
                  **Mud Type**      Water Based  
                  **Est. Static Temp.**      163 ° F  
                  **Est. Circ. Temp.**      136 ° F

### VOLUME CALCULATIONS

3,500 ft    x    0.3132 cf/ft    with    100 % excess    =    2192.3 cf  
 2,100 ft    x    0.3132 cf/ft    with    100 % excess    =    1315.4 cf  
 40 ft       x    0.3973 cf/ft    with       0 % excess    =       15.9 cf (inside pipe)  
    **TOTAL SLURRY VOLUME** =    3523.6 cf  
    =               628 bbls

**STAGE: 2**      **Stage Collar set @**      5,500 ft  
                  **Mud Density**      9.10 ppg  
                  **Mud Type**      Water Based  
                  **Est. Static Temp.**      121 ° F  
                  **Est. Circ. Temp.**      107 ° F

### VOLUME CALCULATIONS

1,500 ft    x    0.3765 cf/ft    with       0 % excess    =    564.8 cf  
 1,171 ft    x    0.3132 cf/ft    with    100 % excess    =    733.6 cf  
 329 ft      x    0.3132 cf/ft    with    100 % excess    =    206.0 cf  
    **TOTAL SLURRY VOLUME** =    1504.3 cf  
    =               268 bbls

**Operator Name:** Devon Energy Corp  
**Well Name:** North Pure Gold 8 Federal 13  
**Job Description:** 2nd Intermediate Casing  
**Date:** June 3, 2010



**Proposal No:** 215855725B

**WELL DATA (Continued)**

<b><u>STAGE:</u> 3</b>	<b>Stage Collar set @</b>	2,500 ft
	<b>Mud Density</b>	9.10 ppg
	<b>Mud Type</b>	Water Based
	<b>Est. Static Temp.</b>	99 ° F
	<b>Est. Circ. Temp.</b>	91 ° F

**VOLUME CALCULATIONS**

2,143 ft	x	0.3765 cf/ft	with	0 % excess	=	806.8 cf
357 ft	x	0.3765 cf/ft	with	0 % excess	=	134.5 cf
<b>TOTAL SLURRY VOLUME</b>					=	941.3 cf
					=	168 bbls

**Operator Name:** Devon Energy Corp  
**Well Name:** North Pure Gold 8 Federal 13  
**Job Description:** 2nd Intermediate Casing  
**Date:** June 3, 2010



**Proposal No:** 215855725B

## **FLUID SPECIFICATIONS**

### **STAGE NO.: 1**

Spacer . 20.0 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

<b>FLUID</b>	<b>VOLUME CU-FT</b>	<b>VOLUME FACTOR</b>	<b>AMOUNT AND TYPE OF CEMENT</b>
Lead Slurry	2192	/ 1.99	= 1100 sacks (35:65) Poz (Fly Ash):Class H Cement + 2% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.6% bwoc FL- 52A + 0.1% bwoc ASA-301 + 3 lbs/sack LCM-1 + 101.5% Fresh Water
Tail Slurry	1331	/ 1.6	= 830 sacks (15:61:11) Poz (Fly Ash):Class H Cement:CSE-2 + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 2 lbs/sack LCM-1 + 0.6% bwoc FL-25 + 0.6% bwoc FL-52A + 0.5% bwoc BA-10A + 0.1% bwoc Sodium Metasilicate + 75.5% Fresh Water

Displacement 782.7 bbls Displacement Fluid

### **CEMENT PROPERTIES**

	<b>SLURRY NO. 1</b>	<b>SLURRY NO. 2</b>
Slurry Weight (ppg)	12.50	13.30
Slurry Yield (cf/sack)	1.99	1.60
Amount of Mix Water (gps)	10.59	7.87
Estimated Pumping Time - 70 BC (HH:MM)	5:30	4:18
Free Water (mls) @ ° F @ 90 ° angle		0.0
Fluid Loss (cc/30min) at 1000 psi and ° F		50.0
<b>COMPRESSIVE STRENGTH</b>		
12 hrs @ 163 ° F (psi)	190	425
13 hrs @ 163 ° F (psi)		500
22.6 hrs @ 163 ° F (psi)	500	
24 hrs @ 163 ° F (psi)	529	1553

**Operator Name:** Devon Energy Corp  
**Well Name:** North Pure Gold 8 Federal 13  
**Job Description:** 2nd Intermediate Casing  
**Date:** June 3, 2010



**Proposal No:** 215855725B

## **FLUID SPECIFICATIONS (Continued)**

### **STAGE NO.: 2**

Spacer 20.0 bbls Fresh Water @ 8.34 ppg

Lead Slurry 1298 / 2.04 = 635 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 206 / 1.37 = 150 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 389.2 bbls Displacement Fluid

### **CEMENT PROPERTIES**

	<b>SLURRY NO. 1</b>	<b>SLURRY NO. 2</b>
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)	5:30	2:46
Free Water (mls) @ ° F @ 90 ° angle		
Fluid Loss (cc/30min) at 1000 psi and ° F		

### **COMPRESSIVE STRENGTH**

6.5 hrs @ 121 ° F (psi)		500
12 hrs @ 121 ° F (psi)	237	1341
21.75 hrs @ 121 ° F (psi)	500	
24 hrs @ 121 ° F (psi)	541	2420



**Operator Name:** Devon Energy Corp  
**Well Name:** North Pure Gold 8 Federal 13  
**Job Description:** 2nd Intermediate Casing  
**Date:** June 3, 2010



**Proposal No:** 215855725B

## **FLUID SPECIFICATIONS (Continued)**

### **STAGE NO.: 3**

Spacer 20.0 bbls Fresh Water @ 8.34 ppg

Lead Slurry 807 / 2.01 = 550 sacks (35:65) Poz (Fly Ash):Class C Cement +  
4% bwoc Bentonite + 5% bwoc MPA-5 + 0.8%  
bwoc Sodium Metasilicate + 5% bwow Sodium  
Chloride + 104.6% Fresh Water

Tail Slurry 134 / 1.34 = 100 sacks Class C Cement + 2% bwoc Calcium  
Chloride + 56.4% Fresh Water

Displacement 176.9 bbls Displacement Fluid

### **CEMENT PROPERTIES**

	<b>SLURRY NO. 1</b>	<b>SLURRY NO. 2</b>
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	2.01	1.34
Amount of Mix Water (gps)	10.91	6.36
Estimated Pumping Time - 70 BC (HH:MM)	4:00	1:30
Free Water (mls) @ ° F @ 90 ° angle		
Fluid Loss (cc/30min) at 1000 psi and ° F		

### **COMPRESSIVE STRENGTH**

6 hrs @ 95 ° F (psi)		500
12 hrs @ 95 ° F (psi)	357	950
15.5 hrs @ 95 ° F (psi)	500	
24 hrs @ 95 ° F (psi)	750	1450

CEMENT VOLUMES WILL VARY BASED ON CALIPER.

Devon Energy Production Company, LP  
NM-77046– North Pure Gold 8 Federal #13  
API: 30-015-37651  
Eddy County, New Mexico

RE: Cement Change – Conditions of Approval

**Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.**

1. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - a. First stage to DV tool, cement shall:
    - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
  - b. Second stage above DV tool, cement shall:
    - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
  - c. Third stage above DV tool, cement shall:
    - ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

**DHW 061610**