



# Cementing Service Report

9211056

Client Name Anadarko Petroleum Corporation	Well Name Henderson 41-4	Rig Basic 1549	Job Date February 17, 2016	Call Sheet 1065069
Client Representative Mr. Bill Smith	Surface Well Location NE NE Sec 4:T4N:R67W	Down Hole Well Location	Job Type Cement Misc.	Lead Supervisor Doran, Benjamin (27933)

## Well Profile

Well Type:	Oil
Maximum Treating Pressure (psi):	---
Predicted Bottom Hole Static Temperature (°F):	--- @ --
Bottom Hole Circulating Temperature (°F):	--- @ --
Bottom Hole Logged Temperature (°F):	--- @ --

## Open Hole

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
10.000	--	206.000	7,484.000	--	--

## Casing

Size	Weight	Grade	Collapse Pressure	Internal Yield Pressure	Capacity	I.D.	O.D.	Depth From	Depth To
(in)	(lb/ft)		(psi)	(psi)	(bbl)	(in)	(in)	(ft)	(ft)
4.500	11.600		--	--	--	--	--	0.0	7,484.0
8.625	24.000		--	--	--	--	--	0.0	206.0

## Tubing

Size	Weight	Grade	Collapse Pressure	Capacity	I.D.	O.D.	Depth From	Depth To
(in)	(lb/ft)		(psi)	(bbl)	(in)	(in)	(ft)	(ft)
1.660	2.300	J-55	--	8.470	--	--	0.000	4,576.000

## Products

### Stage 1

From Depth (ft): 3501

To Depth (ft): 4576

Acids/Blends/Fluids :

Plug: 420 Sacks of 1-1-0 G, Density = 14.8 lb/gal, Volume Pumped = 83.3 (bbl)

Water Temperature(°F) = 65 , Bulk Temperature(°F) = 65 , Slurry Temperature(°F) = 70

- + 0.6 % of CFL-2 (Preblend),
- + 0.5 % of CFR (Preblend),
- + 0.4 % of LTR (Preblend),
- + 0.6 % of SMS (Preblend),
- + 0.2 % of SPC-2 (Preblend),
- + 0.25 % of Polyflake (Preblend)

### Stage 2

From Depth (ft): 0

To Depth (ft): 841

Acids/Blends/Fluids :

Plug: 310 Sacks of 0:1:0 Type III, Density = 14.8 lb/gal, Volume Pumped = 73.4 (bbl)

Water Temperature(°F) = 65 , Bulk Temperature(°F) = 65 , Slurry Temperature(°F) = 65

- + 0.25 lb/sack of LCL-7 (Preblend),
- + 0.5 % of CaCl<sub>2</sub> (Preblend),
- + 0.3 % of CFR-2 (Preblend),
- + 0.3 % of CFL-3 (Preblend),
- + 0.4 % of CDF-4P (Preblend)



9211056

**Fluid & Cement Data**

Expected Cement Top: Surface

**Wellbore Fluid**

<u>Fluid Type</u>	<u>Viscosity (cP)</u>	<u>Density (lbs/gal)</u>	<u>Yield Point (psi)</u>	<u>Temperature (°F)</u>	<u>Recorded@</u>
Water	--	8.400	--	--	Jan 15, 2015 18:10

**Units & Personnel****Units**

<u>Truck Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Tractor Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Time On Location</u>	<u>Time Off Location</u>
201352	PICKUP	1 Ton	449083	TRAILER	Utility Trailer	02/17/2016 06:30	02/17/2016 13:00
445070	TRAILER	SCM Twin	745070	TRACTOR	Tandem - Tractor	02/17/2016 06:30	02/17/2016 13:00
446092	TRAILER	Bulker	746092	TRACTOR	Tandem - Tractor	02/17/2016 06:30	02/17/2016 13:00
746502	BODY JOB	Baby Bulker				02/17/2016 06:30	02/17/2016 13:00
746506	BODY JOB	Baby Bulker				02/17/2016 06:30	02/17/2016 13:00
200596	PICKUP	1/2 Ton				02/17/2016 06:30	02/17/2016 13:00

**Crew and Bonuses**

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Doran, Benjamin (27933)	02/17/2016 06:30	02/17/2016 13:00		
Cheal, Samuel (28315)	02/17/2016 06:30	02/17/2016 13:00		
Johnson, Quintin (23945)	02/17/2016 06:30	02/17/2016 13:00		
Contreras, Bennie (23469)	02/17/2016 06:30	02/17/2016 13:00		
Nickerson, Nick				
Bushnell, Cody (21127)	02/17/2016 06:30	02/17/2016 13:00		

### Treatment Reports & Remarks

#### Treatment Report

Event #	Event Time	Event Description	Fluid Type	Rate (bbl/min)	Tubular Pressure (psi)	Annular Pressure (psi)	Stage Volume (bbl)	Total Volume (bbl)
1	Feb 17,2016 06:30	Arrive On Location		--	--	--	--	0.00
2	Feb 17,2016 06:35	Crew Briefing (Rig in)		--	--	--	--	0.00
3	Feb 17,2016 07:50	Rig in Complete		--	--	--	--	0.00
4	Feb 17,2016 08:00	Crew Briefing (Pre Job)		--	--	--	--	0.00
5	Feb 17,2016 08:23	Pressure Test Start	Water	1.00	200.0	--	1.00	0.00
		Remarks: Fill lines						
6	Feb 17,2016 08:24	Pressure Test Complete		--	3,500.0	--	--	0.00
		Remarks: All lines held pressure						
7	Feb 17,2016 08:27	Pump Preflush	Water	2.00	1,800.0	--	30.00	0.00
		Remarks: 5 BBL Fresh, 20 BBL SMS, 5 BBL Fresh						
8	Feb 17,2016 08:44	Mix Cement	1-1-0 G	1.45	2,000.0	--	83.30	0.00
		Remarks: Mix/Pump 420 Sacks @ 14.6 PPG, 1.12 Yield, 4.62 Water Req, 84.4 Sack Weight						
9	Feb 17,2016 09:35	Displace Fluid	Water	1.50	2,100.0	--	6.00	0.00
10	Feb 17,2016 09:40	Wash	Water	--	--	--	6.00	0.00
11	Feb 17,2016 09:50	Wait on Cement		--	--	--	--	0.00
12	Feb 17,2016 10:58	Pressure Test	Water	--	2,000.0	--	--	0.00
		Remarks: All lines held pressure						
13	Feb 17,2016 10:59	Pump Preflush	Water	1.50	200.0	--	20.00	20.00
		Remarks: 5 BBL Fresh, 10 BBL Mudflush, 5 BBL Fresh						
14	Feb 17,2016 11:06	Mix Cement	0:1:0 Type III	1.50	350.0	--	73.40	93.40
		Remarks: Mix/Pump 310 Sacks @ 14.8 PPG, 1.33 Yield, 6.31 Water Req, 95.66 Sack Weight						
15	Feb 17,2016 11:52	Displace Fluid	Water	1.50	800.0	--	1.50	94.90
16	Feb 17,2016 11:57	Wash		--	--	--	15.00	109.90
17	Feb 17,2016 12:30	Rig Out		--	--	--	--	109.90
18	Feb 17,2016 12:45	Job Complete		--	--	--	--	109.90
19	Feb 17,2016 13:00	Leave Location		--	--	--	--	109.90

Did Float Hold: Not Applicable  
 Fluid Returns : Yes  
 Type : Cement  
 Volume (bbl) : 4.5  
 Temperature (°F) : 70  
 FDAS Functioning Correctly : Yes  
 Was the Program Followed As Per Design? : Yes

#### Material Transfer Sheet Number

Material Transfer Sheet Number  
 64696  
 64697