

*The Road to Excellence Starts with Safety*

Sold To #: 300466	Ship To #: 3743898	Quote #: 0022419313	Sales Order #: 0904719459
Customer: ANADARKO PETROLEUM CORP-EBUS		Customer Rep: Terry H.	
Well Name: MARRS	Well #: 3N-10HZ	API/UWI #: 05-123-43272-00	
Field: WATTENBERG	City (SAP): IONE	County/Parish: WELD	State: COLORADO
Legal Description: SE NW-22-1N-67W-2075FNL-2011FWL			
Contractor: XTREME DRLG		Rig/Platform Name/Num: XTREME 24	
Job BOM: 7523 7523			
Well Type: HORIZONTAL GAS			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Ryan Stevens	

**Job**

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	15718ft	Job Depth TVD	7455'
Water Depth		Wk Ht Above Floor	5'
Perforation Depth (MD)	From		To

**Well Data**

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36		J-55	0	1870	0	1870
Casing	New	5.5	4.892	17	LTC	HCP110	0	15718	6687	7455
Open Hole Section			8.5				1870	15728	6687	7455

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	5.5	1	Weath
Float Shoe	5.5	1	Weath	15718	Bottom Plug	5.5	1	Weath
Float Collar	5.5	1	Weath	15716	SSR plug set	5.5		HES
Insert Float					Plug Container	5.5	1	HES
WSS	5.5	1	Weath		Centralizers	5.5		HES

**Fluid Data**

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Tuned Spacer III	Tuned Spacer III	60	bbl	10.5	6.43	41.3	5	2,142	
37.58 gal/bbl		<b>FRESH WATER</b>								
0.70 gal/bbl		<b>DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)</b>								
0.25 gal/bbl		<b>D-AIR 3000L, 5 GAL PAIL (101007444)</b>								

0.70 gal/bbl		<b>MUSOL A, 330 GAL TOTE - (790828)</b>							
86.45 lbm/bbl		<b>BARITE, BULK (100003681)</b>							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Lead	GASSTOP (TM) SYSTEM	530	sack	13.2	1.6	7.7	5	4,031
0.10 %		<b>FE-2 (100001615)</b>							
0.40 %		<b>SCR-100 (100003749)</b>							
5.20 Gal		<b>FRESH WATER</b>							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Tail	ECONOCEM (TM) SYSTEM	1,390	sack	13.5	1.68	7.99	8	11,106
0.20 %		<b>SA-1015, 50 LB SACK (102077046)</b>							
7.99 Gal		<b>FRESH WATER</b>							
0.35 %		<b>HR-5, 50 LB SK (100005050)</b>							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Biocide Water and MMCR	20	bbl	8.34			10	840
0.50 gal/bbl		<b>MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)</b>							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
5	Displacement	Biocide Water	345	bbl	8.34			10	14,490
Cement Left In Pipe	Amount	0 ft			Reason			Wet Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	0 ppm		Mix Water Temperature:	71°F			
Cement Temperature:	°F	Plug Displaced by:	8.34lb/gal		Disp. Temperature:	F °C			
Plug Bumped?	Yes	Bump Pressure:	3,070 psi		Floats Held?	Yes			
Cement Returns:	0 bbl	Returns Density:			Returns Temperature:				
<b>Comment</b> Calculated top of spacer @ 600, Calculated top of lead @ 1,850', Calculated top of tail 5,547'									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	3/21/2018	12:00:00	USER	CREW CALLED OUT AT 12:00, REQUESTED ON LOCATION 10:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON CO. BULK TRUCK AND PUMP 11189145.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/21/2018	18:30:00	USER	CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	3/21/2018	18:45:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	3/21/2018	19:00:00	USER	END JOURNEY MANAGEMENT. MEET WITH COMPANY MAN AND DISCUSS JOB PROCEDURES. TD @ 15,728 - 8 1/2, 9 5/8 36# SET @ 1870, 5.5 17# SET @ 15,718, FLOAT COLLAR SET @ 15,716
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/21/2018	19:15:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER
Event	6	Rig-Up Equipment	Rig-Up Equipment	3/21/2018	19:30:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/22/2018	01:00:00	USER	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Stage	2	Start Job	Start Job	3/22/2018	01:36:38	COM4	START RECORDING JOB DATA
Event	8	Test Lines	Test Lines	3/22/2018	01:48:02	COM4	PRESSURE TESTED IRON TO 6,380 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 740 PSI, 5TH GEAR STALL OUT @ 1,035 PSI.

Stage	3	Pump Spacer 1	Pump Spacer 1	3/22/2018	01:54:21	COM4	PUMP 60 BBLs OF TUNED SPACER @ 10.5 LBS/GAL. DENSITY VERIFIED BY PRESSURIZED MUD SCALES
Event	9	Drop Bottom Plug	Drop Bottom Plug	3/22/2018	02:09:47	COM4	VERIFIED BY COMPANY MAN
Stage	4	Pump Lead Cement	Pump Lead Cement	3/22/2018	02:19:39	COM4	PUMP 530 SXS OF GASSTOP @ 13.2 LBS/GAL YIELD 1.6 MIX WATER 7.7, CALCULATED TOP OF LEAD @ 1,850 DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Stage	5	Pump Lead Cement	Pump Lead Cement	3/22/2018	02:27:28	COM4	RATE AND PRESSURE 8 BPM 740 PSI
Stage	6	Pump Tail Cement	Pump Tail Cement	3/22/2018	02:42:13	COM4	PUMP 1,390 SXS OF ECONOCEM @ 13.5 PPG YIELD 1.68 MIX WATER 7.99. CALCULATED TOP OF TAIL @ 5,547' DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	10	Other	Random Pressure spike	3/22/2018	03:10:32	USER	PRESSURE SPIKED TO APOX 2,200 PSI 230 BBLs INTO TAIL CEMENT. STILL HAD GOOD RETURNS AT THE SHAKERS. PRESSURE LINED BACK OUT AT 680 PSI AT 8 BPM.
Event	11	Shutdown	Shutdown	3/22/2018	03:43:57	COM4	SHUT DOWN WASH PUMPS AND LINES
Event	12	Drop Top Plug	Drop Top Plug	3/22/2018	03:51:53	COM4	DROP TOP PLUG VERIFIED BY COMPANY REP.
Stage	7	Pump Displacement	Pump Displacement	3/22/2018	03:51:55	COM4	PUMP CALCULATED DISPLACEMENT OF 365 BBLs PUMP THE FIRST 20 WITH MMCR AND BIOCIDE THROUGH OUT THE REST
Stage	8	Pump Displacement	Pump Displacement	3/22/2018	03:52:04	COM4	RATE AND PRESSURE CHECK
Event	13	Displ Reached Cement	Displ Reached Cmnt	3/22/2018	03:58:08	USER	CAUGHT CEMENT 36 BBLs INTO DISPLACEMENT SLOW RATE TO 6 BBLs PER MINUTE PSI 530
Stage	9	Pump Displacement	Pump Displacement	3/22/2018	04:27:42	COM4	RATE AND PRESSURE CHECK
Event	14	Bump Plug	Bump Plug	3/22/2018	05:03:50	COM4	BUMP PLUG @ CALCULATED

DISPLACEMENT OF 395 BBLS.BUMP  
PRESSURE WAS 3,070 PSI NO SPACER OR  
CEMENT TO SURFACE HOLD PRESSURE FOR  
15 MINS FOR CASING TEST

Event	15	Check Floats	Check Floats	3/22/2018	05:15:52	USER	CHECK FLOATS, 3 BBLS BACK
Event	16	Open Valve Downhole	Open Valve Downhole	3/22/2018	05:21:52	USER	OPEN WET SHOE SUB. PSI 4,980 PUMP 3 BBLS WET SHOE.
Event	17	Check Floats	Check Floats	3/22/2018	05:24:18	USER	CHECK FLOATS 3 BBLS BACK
Stage	10	End Job	End Job	3/22/2018	05:25:05	COM4	STOP RECORDING JOB DATA
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/22/2018	05:27:29	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/22/2018	05:30:00	USER	CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.

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Event	20	Rig-Down Completed	Rig-Down Completed	3/22/2018	07:00:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
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Event	21	Crew Leave Location	Crew Leave Location	3/22/2018	07:30:00	USER	THANKS RYAN STEVENS AND CREW
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3.0 Attachments

3.1 Job Chart

