



Service Order #: 70,151

Date: 05-Jul-17

Well Name	Location	County	St	API#		
CACH USX AA 05-17		WELD	CO			
Formation	Cement Via	Type Of Service	Well Type	Age	AFE#	PO#
	TUBING	PLUG		REWORK		

Customer: NOBLE ENERGY

Remarks: CLASS G CMT, 1.15 YIELD, 15.8 LBS/GAL
145 SKS, 29.7 THROUGH RETAINER
10 SKS, 2 BBLS, ABOVE RETAINER
1500'-1137' ANNULUS, 1500'-1271' CASING
347 SKS, 71 BBLS, 957'-0'

Customer Rep: STEW

PH:

WELLBORE DATA				
Type	Size	Weight	Depth	Volume
Surface Casing:	8.625	24.0	703.0	
Production Casing:	4.500	11.6	1,500.0	
Intermediate:				
Drill Pipe:				
Tubing:	2.375	4.7	1,400.0	

Type	Size	Depth (Top)	Depth (Bot)	Volume
Liner:				
Open Hole:	10.000	703.0	903.0	

OTHER DATA		
BHT	Max PSI	Total Depth
	308	1,500.0

Packer or RetainerType / Depth:

RETAINER 1,400.0

Perf Depths: # Total

1,500.0		0	0
		0	
		0	

TIME	PUMP RATES		DENSITY (lb/gl)	PRESS (psi)	STG TOT (bbls)	TOTAL (bbls)	REMARKS
	WATER (gpm)	PUMP (bpm)					
8:12	0	0.0	2.25	2,174	112.2	126.3	PSI TEST
8:13	0	0.0	2.25	0	0.0	0.0	MUD FLUSH
8:20	0	2.1	15.82	137	10.0	10.0	START H2O SPACER
8:23	0	2.1	15.76	187	5.0	15.1	START CMT
8:38	0	2.1	9.22	37	31.7	46.9	START DISPLACEMENT
8:40	0	0.0	8.37	0	3.6	50.7	OFFLINE
9:02	0	0.0	8.35	12	28.0	75.1	Paused 09:02:15-11:51:06
12:34	0	0.0	6.88	2,308	31.0	78.1	PSI TEST
12:36	0	0.0	6.88	70	0.0	0.0	MUD FLUSH
12:41	47	2.0	14.61	153	9.9	9.9	H2O SPACER
12:44	0	2.0	15.43	141	4.9	15.1	START CMT
13:20	0	0.0	15.83	70	69.1	84.3	CMT TO SURFACE OFFLINE
13:29	0	0.0	15.80	70	69.1	84.3	Paused 13:29:12

Summary

Max Fl. Rate	Avg Fl. Rate	Max Psi	Avg Psi
2.1	1.6	2,391	103

Customer Acknowledgement:

Service Rating:

- ☐ Satisfactory
☐ Unsatisfactory

Cementer:

A.HOWELL

PRODUCTS USED