

1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	1555	30
Casing	Inner	9.625	8.921	36	LTC	0	1552	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	E421	Vasquez, Mike	140
Bulk Trailer	E435	Borst, David	140
Light Duty Pickups	51	Chambers, Andrew	140

1.3 Timing

Event	Date/Time
Call Out	6/29/2017 05:00
Depart Facility	6/29/2017 06:00
On Location	6/29/2017 08:30
Rig Up Iron	6/29/2017 04:48
Job Started	6/29/2017 13:07
Job Completed	6/29/2017 14:26
Rig Down Iron	6/29/2017 14:45
Depart Location	6/29/2017 15:45

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	174 bbls
Rig Circulation Time	0.25 hours
Calculated Displacement	116.49 bbls
Actual Displacement	116.49 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	26 bbls
Well Topped Out	No

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	1
Yield Point	4
10 sec. SGS	1
10 min. SGS	2
30 min. SGS	3
Filtrate	90
Flow Line Temp.	70

1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	8.6 lb/gal
Well Fluid Density Out of Well	8.6 lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	88 °F
BHST	110 °F



1.8 Circulation

Lost Circulation Experienced
No

1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	ALTCem S100-12	Lead	12.00	2.53	14.85		270.00	121.49	0
1	3	ALTCem S100-12	Tail	12.50	2.22	12.58		155.00	61.38	1000
1	4	Water	DisplacementFinal	8.33			42.00		113.00	0

1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Lead	ALTCem S100-12	AC3-10	Cement	100.00	%
1	2	Lead	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	2	Lead	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	2	Lead	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	2	Lead	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	3	Tail	ALTCem S100-12	AC3-10	Cement	100.00	%
1	3	Tail	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	3	Tail	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	3	Tail	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	3	Tail	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk

2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	CALL OUT	6/29/2017	05:00					BJ CREW CALLED OUT
2	PRE CONVOY	6/29/2017	05:45					DISCUSSED HAZARDS OF DRIVING
3	DEPART SHOP	6/29/2017	06:00					BJ CREW LEFT SHOP FOR LOCATION
4	ASSESSMENT OF LOCATION	6/29/2017	08:30					MET WITH CUSTOMER REP WENT OVER DETAILS OF JOB AND WHERE TO SPOT EQUIPMENT
5	PRE RIG UP	6/29/2017	11:30					DISCUSSED HAZARDS OF RIG UP
6	RIG UP EQUIPMENT	6/29/2017	00:20					BJ CREW RIGGED UP LOCATION
7	RIG UP COMPLETE	6/29/2017	13:00					RIG UP COMPLETED SAFELY
8	PRE JOB	6/29/2017	13:07					CONDUCTED STEACS BRIEFING WITH CREW,AND SAFETY MEETING WITH RIG CREW
9	FILL LINES	6/29/2017	13:30	8.33	2	2		FILLED LINES WITH 2 BBL FRESH WATER
10	PRESSURE TEST	6/29/2017	13:32	8.33	1	1		TESTED LINES TO 3000
11	PUMP SPACER	6/29/2017	13:33	8.33	5	40		PUMPE 40 BBL FRESH WATER SPACER
12	PUMP LEAD CEMENT	6/29/2017	13:40	12	5	121.5		121.5BBL,270/SKS,2.53CUFT/FT,14.85GAL/SK OF LEAD CEMENT
13	PUMP TAIL CEMENT	6/29/2017	13:58	12.5	5	61.4		61.4BBL,155/SKS,2.22CUFT/FT,12.85GAL/SK
14	SHUTDOWN	6/29/2017	14:09					ALL CEMENT PUMPING COMPLETE
15	DROP PLUG	6/29/2017	14:10					TOP PLUG LEFT CEMENTING HEAD
16	DISPLACEMENT	6/29/2017	14:10	8.33	5	116.49		DISPLACED WITH 116.49 BBLS FRESH WATER
17	CEMENT TO SURFACE	6/29/2017	14:21					26 BBLS CEMNT TO SURFACE AT 90 DISPLACED
18	SLOW RATE	6/29/2017	14:24	8.33	2	95		SLOWED TO 2BBL/MIN AT 95 DISPLACED TO BUMP PLUG
19	BUMP PLUG	6/29/2017	14:26					BUMPED AT CALCULATED 360 TO 1000 PSI
20	CHECK FLOATS	6/29/2017	14:29					FLOATS HELD .75 BBL BACK
21	PRE RIG DOWN	6/29/2017	14:35					DISCUSSED HAZARDS OF RIGGING DOWN IRON
22	RIG DOWN	6/29/2017	14:45					BJ CREW RIGGED DOWN EQUIPMENT
23	RIG DOWN COMPLETE	6/29/2017	15:15					RIG DOWN COMPLETED SAFELY
24	PRE CONVOY	6/29/2017	15:30					DISCUSSED HAZARDS OF DRIVING,AND CONDUCTED AAR
25	DEPART LOCATION	6/29/2017	15:45					BJ CREW DEPARTED FOR SHOP

3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	73 °F	50-80 °F
pH Level	6.5	5.5-8.5
Chlorides	3 mg/L	0-3000 mg/L
Total Alkalinity	250	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	>200 mg/L	0-1500 mg/L
Potassium	440 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams

