

Waste Disposal Well #2
30-045-35747

OIL CONS. DIV DIST. 3
AUG 31 2016

BLM/STATE

HALLIBURTON

iCem® Service

WESTERN REFINING SOUTHWEST INC

For: LARRY CANDELARIA

Date: Wednesday, August 31, 2016

WWD#2

WWD#2

WWD #2 WESTERN REFINING 2STAGE

Job Date: Tuesday, August 30, 2016

Sincerely,

JACOB AYERS

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	PS Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	8/30/2016	00:00:00	USER					call out @ 330
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	8/30/2016	05:22:23	USER					meeting with crew @
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	8/30/2016	05:22:32	USER					departed from yard @
Event	4	Arrive at Location from Other Job or Site	Arrive at Location from Other Job or Site	8/30/2016	05:22:35	USER					arrived on location @ 800
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/30/2016	05:22:46	USER					tailgate meeting with crew
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	8/30/2016	17:45:00	USER	-51.70	8.73	0.00	0.0	safety meeting with all affected personnel on location
Event	7	Start Job	Start Job	8/30/2016	18:20:04	COM5					
Event	8	Pump Spacer	Pump Spacer	8/30/2016	18:29:13	USER	-14.70	8.35	0.00	0.0	3bbl. fresh ahead
Event	9	Pressure Test	Pressure Test	8/30/2016	18:33:22	USER	4819.30	8.11	0.00	2.7	test pumps and lines to 4800 psi
Event	10	Pump Spacer 1	Pump TUNED Spacer	8/30/2016	18:41:11	USER	62.30	8.21	1.10	0.2	50 bbl tuned spacer @13.8# 1.95 yield 32.2 gal/sks
Event	11	Pump 1st Stage Lead Slurry	Pump 1st Stage Lead Slurry	8/30/2016	18:56:15	USER	177.30	15.41	3.50	0.0	260sks @15.6# 1.2yield 5.11gal/sks= 55.6bbl cmt 31.7bbl mwrq
Event	12	Pump 1st Stage Tail Slurry	Pump 1st Stage Tail Slurry	8/30/2016	19:12:29	USER	136.30	15.69	3.50	57.0	200sks @15.6# 1.2 yield 5.11gal/sks = 42.75 bblcmt 24.4bbl mwrq
Event	13	Drop Plug	Drop Plug	8/30/2016	19:28:38	USER	22.30	16.83	0.00	0.0	

Event	14	Pump Displacement	Pump Displacement	8/30/2016	19:31:50	USER	10.30	16.11	1.70	0.0	calculated displacement 261.5 bbl actually pumped 258.5bbl
Event	15	Bump Plug	Bump Plug	8/30/2016	20:29:24	USER	966.30	13.36	0.90	275.9	calculated 550 psi to bump actual bump 542 psi
Event	16	Set Packer	Set Packer	8/30/2016	20:35:26	USER	2445.30	13.41	0.70	2.8	set the packer below MSC
Event	17	Drop Opening Device For Multiple Stage Cementer	Drop Opening Device	8/30/2016	20:44:03	USER	21.30	13.31	0.00	3.2	opened tool at 1271 psi
Event	18	Open Multiple Stage Cementer	Open Multiple Stage Cementer	8/30/2016	20:59:23	USER	431.30	13.43	4.10	1.4	opened stage tool @1258psi
Event	19	Circulate Well	Roll The Cmt Off The Top	8/30/2016	21:01:45	USER	162.30	13.32	5.00	13.1	roll the cmt off the top of the tool 160bbl
Event	20	Cement Returns to Surface	Cement Returns to Surface	8/30/2016	21:24:29	USER	205.30	13.36	5.00	127.7	calculated cmt back to surface 41bbl actual cmt back to surface 15bbl
Event	21	Start Job	Start Job	8/31/2016	03:28:47	COM5					
Event	22	Pressure Test	Pressure Test	8/31/2016	03:37:23	USER	2200.30	8.43	0.00	3.0	TEST PUMPS AND LINES 5000psi
Event	23	Pump Spacer	Pump Tuned Spacer	8/31/2016	03:48:47	USER	137.30	14.22	3.90	5.9	50 bbl tuned spacer @14.5 # 2.17 yield 12.8 gal/sks
Event	24	Pump 2nd Stage Lead Slurry	Pump 2nd Stage Lead Slurry	8/31/2016	04:00:40	USER	179.30	13.64	5.00	3.9	800 sks @13.2# 1.46 yield 6.66gal/sks = 208bbl cmt 126.85 bbl mwrq
Event	25	Pump 2nd Stage Tail Slurry	Pump 2nd Stage Tail Slurry	8/31/2016	04:51:22	USER	447.30	15.38	5.10	5.9	200sks @15.8# 1.15yield 5.09 gal/sks = 40.9 bbl cmt 24.5bblmwrq
Event	26	Drop Plug	Drop Plug	8/31/2016	05:01:20	USER	2.30	4.29	2.00	0.1	shut down drop plug
Event	27	Pump Displacement	Pump Displacement	8/31/2016	05:02:18	USER	335.30	7.78	5.50	5.0	calculated displacement 195.8bbl actual displacement /bbl
Event	28	Cement Returns to	Cement Returns to	8/31/2016	05:28:48	USER	850.30	7.76	5.40	149.6	calculated cmt back to

Surface		Surface									surface 103bbl actual cmt back to surface 50 bbl
Event	29	Bump Plug	Bump Plug	8/31/2016	05:41:42	USER	1079.30	7.78	4.00	202.3	calculated psi to bump760psi actual bump psi
Event	30	Check Floats	Check Floats	8/31/2016	05:44:53	USER	-18.70	7.76	0.00	204.4	check floats floats held 1.5 bbls back
Event	31	End Job	End Job	8/31/2016	05:46:14	COM5					

The Road to Excellence Starts with Safety

Sold To #: 302482	Ship To #: 302482	Quote #: 0022209349	Sales Order #: 0903512352
Customer: WESTERN REFINING SOUTHWEST INC -		Customer Rep:	
Well Name: WWD		Well #: 2	API/UWI #:
Field:	City (SAP): BLOOMFIELD	County/Parish: San Juan	State: NEW MEXICO
Legal Description:			
Contractor: AZTEC WELL SERVICING CO		Rig/Platform Name/Num: AZTEC 920	
Job BOM: 392189			
Well Type: OIL & GAS WELL			
Sales Person: HALAMERICA\HAM2616		Srvc Supervisor: Jacob Ayers	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	3505ft		Job Depth TVD
Water Depth			Wk Ht Above Floor
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		13.375	12.715	48			0	298		
Casing		9.625	8.921	36			0	3505		
Open Hole Section			12.25				298	3515		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			3505	Top Plug	9.625		HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625				SSR plug set	9.625		HES
Insert Float	9.625				Plug Container	9.625		HES
Stage Tool	9.625				Centralizers	9.625		HES

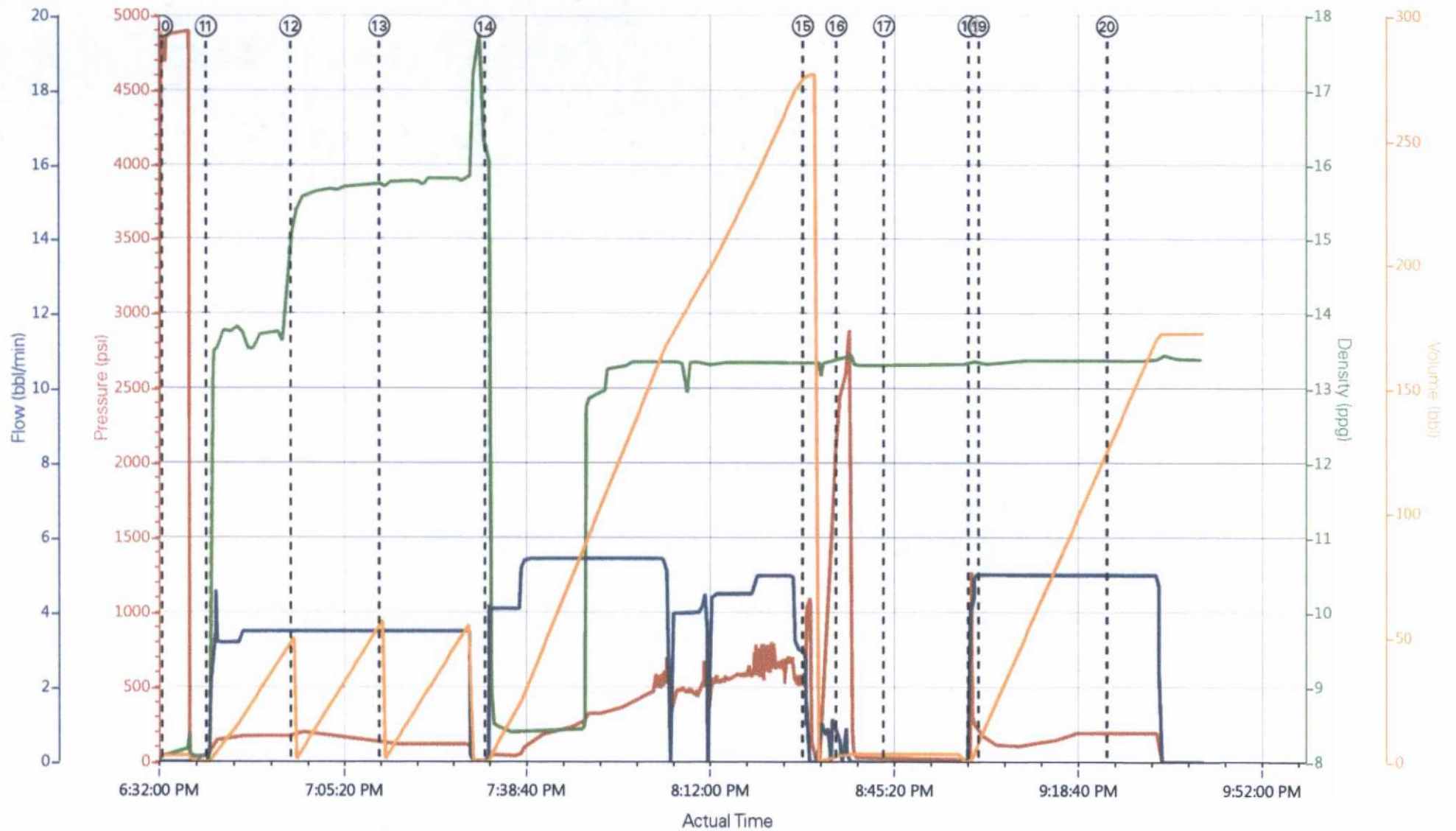
Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	14.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	13.8	1.92			
1 lbm/bbl		D-AIR 5000, 50 LB SACK (102068797)							
323 lbm/bbl		BAROID 41 - 50 LB BAG(478095)							
31.62 gal/bbl		FRESH WATER							

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 Cement	HALCEM (TM) SYSTEM	260	sack	15.6	1.2		5	5.11
5.11 Gal		FRESH WATER							
3	Tail Cement	HALCEM (TM) SYSTEM	200	sack	15.6	1.2		5	5.12
5.12 Gal		FRESH WATER							
4	Displacement	Displacement	258.5	bbl	8.33				
Cement Left In Pipe		Amount	50 ft	Reason				Shoe Joint	
Fluid Data									
Stage/Plug #: 2									
1	14.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	13.4	2.17			
31.62 gal/bbl		FRESH WATER							
1 lbm/bbl		D-AIR 5000, 50 LB SACK (102068797)							
258.60 lbm/bbl		BAROID 41 - 50 LB BAG(478095)							
2	Lead Cement	EXTENDACEM (TM) SYSTEM	800	sack	13.2	1.46		5	6.66
6.66 Gal		FRESH WATER							
3	Tail Cement	HALCEM (TM) SYSTEM	200	sack	15.8	1.15		5	5.09
5.09 Gal		FRESH WATER							
4	Displacement	Displacement	192.8	bbl	8.33				
Cement Left In Pipe		Amount	0 ft	Reason				Shoe Joint	
Mix Water: pH #7		Mix Water Chloride: 34ppm		Mix Water Temperature: 65°F					
sulfates: >400ppm		Bump Pressure: 558 1155 psi		Floats Held? Yes					
Plug Bumped? Yes		Cement Returns: 15bbl 20 bbl							
Comment									

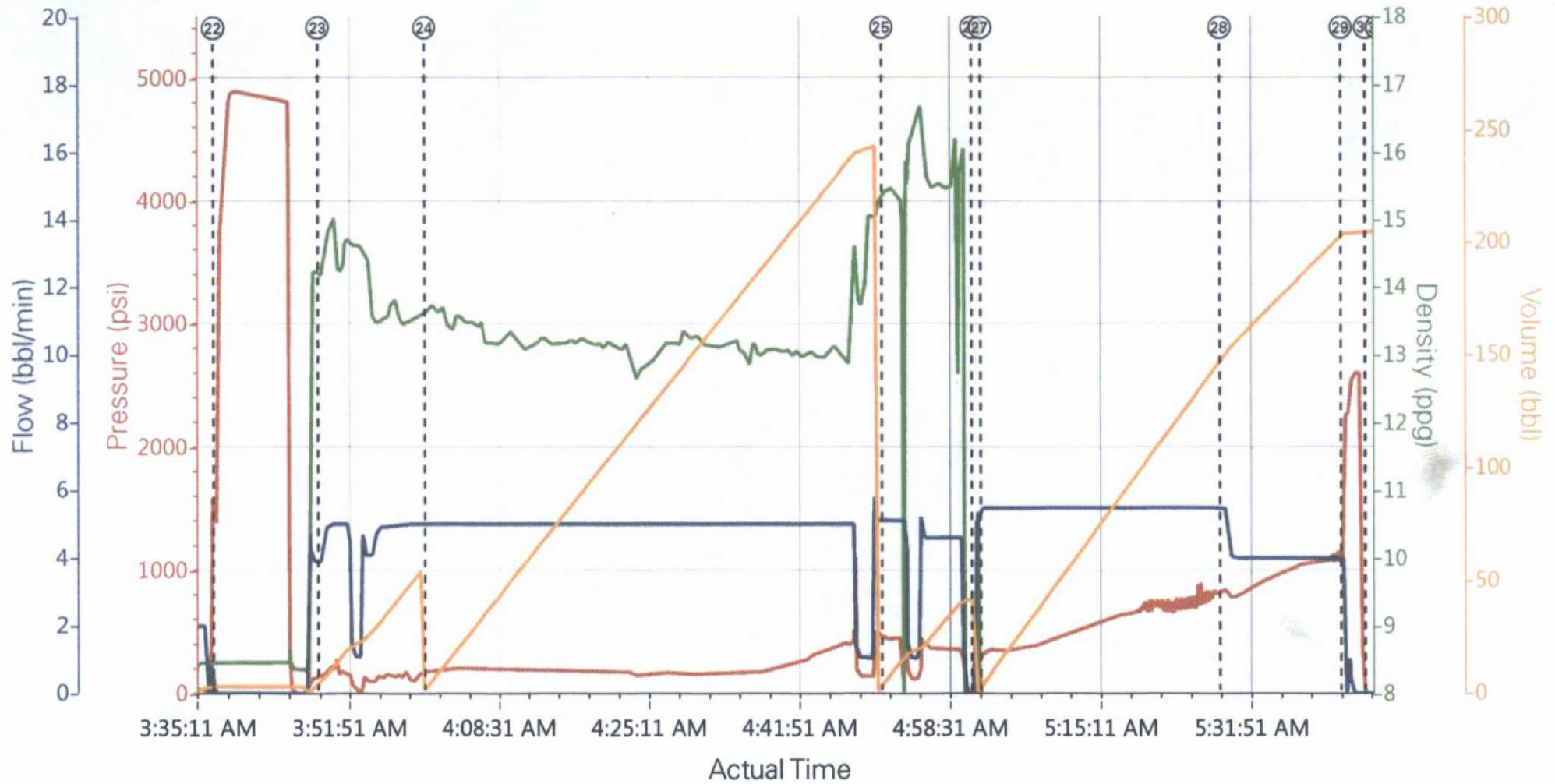
Western Refinery WDW #2



PS Pump Press (psi) -14.7 DH Density (ppg) 13.38 PS Pump Rate (bbl/min) 0 Pump Stg Tot (bbl) 171.9

- | | | | |
|---|---|--|---|
| ① Call Out n/a;n/a;n/a;n/a | ⑥ Pre-Job Safety Meeting -51.7;8.72;0;0 | ⑪ PumpTUNED Spacer 64.3;8.33;1;0.2 | ⑮ Set Packer 2445.3;13.41;0.7;2.8 |
| ② Depart Yard Safety Meeting n/a;n/a;n/a;n/a | ⑦ Start Job -49.7;8.69;0;0 | ⑫ Pump 1st Stage Lead Slurry 186.3;15.42;3.5;0.1 | ⑰ Drop Opening Device 21.3;13.31;0;3.2 |
| ③ Depart from Service Center or Other Site n/a;n/a;n/a;n/a | ⑧ Start Job -49.7;8.69;0;0 | ⑬ Pump 1st Stage Tail Slurry 137.3;15.69;3.5;0.1 | ⑱ Open Multiple Stage Cement 383.3;13.41 |
| ④ Arrive at Location from Other Job or Site n/a;n/a;n/a;n/a | ⑨ Pump Spacer -14.7;8.35;0;0 | ⑭ Pump Displacement 10.3;16.11;1.7;0 | ⑲ Roll The Cmt Off The Top 184.3;13.34;5;10.6 |
| ⑤ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑩ Pressure Test 4831.3;8.11;0;2.7 | ⑯ Bump Plug 966.3;13.36;0.9;275.9 | 20 Cement Returns to Surface 202.3;13.36;5;1 |

Western Refinery WDW #2, 2nd stage



PS Pump Press (psi) DH Density (ppg) PS Pump Rate (bbl/min) Pump Stg Tot (bbl)

① Call Out	⑦ Start Job	⑬ Drop Plug	⑲ Roll The Cmt Off The Top	25 Pump 2nd Stage Tail Slurry	31 End Job
② Depart Yard Safety Meeting	⑧ Pump Spacer	⑭ Pump Displacement	20 Cement Returns to Surface	26 Drop Plug	
③ Depart from Service Center or Other Site	⑨ Pressure Test	⑮ Bump Plug	21 Start Job	27 Pump Displacement	
④ Arrive at Location from Other Job or Site	⑩ Pump TUNED Spacer	⑯ Set Packer	22 Pressure Test	28 Cement Returns to Surface	
⑤ Pre-Rig Up Safety Meeting	⑪ Pump 1st Stage Lead Slurry	⑰ Drop Opening Device	23 Pump Tuned Spacer	29 Bump Plug	
⑥ Pre-Job Safety Meeting	⑫ Pump 1st Stage Tail Slurry	⑱ Open Multiple Stage Cementer	24 Pump 2nd Stage Lead Slurry	30 Check Floats	

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Created: 2016-08-30 05:02:19, Version: 4.2.393

Edit

Customer : WESTERN REFINING SOUTHWEST INC
Representative : JACOB AYERS-112-JE

Job Date : 8/30/2016 3:49:46 PM
Sales Order # : 903512352

Well : WWD#2
COMPANY MAN : LARRY CANDELARIA