



Treatment Report

Customer: Occidental Petroleum Corp.		Job #: JOB00148519
Rep: David Cornett	Rig: Ikon 12	Job Date: Feb 14 @ 12:02
Supervisor: Supervisor TBD	Well: Rainbow 9-18HZ	Time Requested:
Job Type: US Primary Casing-Surface	UWI: Rainbow 9-18HZ Surface: Rainbow 9-18HZ	Time Arrived: Feb 14 @ 12:02 Time Released: Feb 14 @ 16:02

0.00 MAG S 14.1 0.25% MCA-1 + 0.10% MCDF-P

Yield: 1.31m3/t = 0m3 Mix Water: 6.06m3/t = 0m3

BHCT (°C, °F)	88	BHST (°C, °F)	104	Funnel Vis (sec/L, sec/qt)	TBD
Mud Type	WBM	TMD (m, ft)	1887.4	TVD (m, ft)	1825

Treatment Info:	Tonnes Used:	Tonnes Not Used:	0.00
Preflush:	5m3 Fresh Water & 10m3 MAG Mark & 10m3 Fresh Water	Slurry Temp:	43
		Water Temp:	80
Displace:	142m3 Fresh Water	Bulk Temp:	68
Slurry Returns:	52 Plug Bumped:	Pump Out Lines:	Yes
		Float Held:	Yes
		Circulation Time:	0.5
		Bulk Sample:	Yes
		Water Sample:	Yes
		Slurry Sample:	Yes

Time	Pressure MPa	Annular Pressure MPa	Volume Per Stage m3	Total Stage Volume m3	Rate m3/min	Treatment Detail
12:30	0.00	0.00		0.00	0	Arrive on Location - Spoke with Company Representative about depths, volumes, water requirements. Completed water test: pH 7 Hardness: 50 ppm Chlorides: 278 ppm Temp 68f
14:15	0.00	0.00		0.00	0	Safety Meeting - Held Safety meeting with Rig Crew Magnum employees, and Company Representative. Spoke about: Stop work authority, muster points, and communication between crews.
14:27	200.00	0.00		0.00	2	Fill Lines - Filled Lines 5 bbls water for pressure test.
14:29	2000.00	0.00		0.00	0	Start Pressure Test - Pressure tested Iron and Hose Reel to 2000 psi.
14:31	212.00	0.00		0.00	2	Pump Preflush - Pumped 10 bbls Mag Mark. Then Pumped 10 bbls fresh water.
14:40	824.00	0.00		0.00	6	MAG S 14.1 TX - Pumped 870 sks Mag S 14.1 Y= 1.31 W= 6.06 Sample weight checked verified good.
15:31	0.00	0.00		0.00	0	Drop Plug - Dropped top plug.
15:33	960.00	0.00		0.00	6	Displace - Displaced 142 bbls of water.
16:00	1100.00	0.00		0.00	3	Slow Rate Pumping - Slowed pump rate to bump plug.

16:07	0.00	0.00		0.00	0	Bump Plug - Bumped plug at 1350 PSI. 52 BBIs Cement Returned to Surface. Completed 5 Minute Casing Test
16:15	0.00	0.00		0.00	0	Wash Up Truck - Drain pump plumbing Washed truck
16:30	0.00	0.00		0.00	0	Leave Location - Left Customer Location

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