Post Job Report

Service with Integrity

Customer: Occidental Petroleum Corporation

Job Type: Surface Casing

Job Date: 10/06/2023

Well Name: SWARTZ 4-09HZ

API #: 05-123-51920

Service Station: Cheyenne

Client Representative: Ben Petty

Sales Representative: Steve Moore

Author: Yithanllily Silvester

Report Date: 01/2024

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Table of Contents

1. Well Properties

Well Properties	
Hole Size (in)	13.5
Casing Size (in)	9.625
Grade / Weight (lb/ft)	L80/36
TVD/TMD (ft)	1810/1821
BHCT / BHST (F)	88/103

Cement Blend Data

This is the blend data of the Cement ordered for the job.

Blend Description -	Cement Properties
Base Cement Blend : MAG S 14.1	
Mix Water (gal/sk)	14.1
Yield (ft^3/sk)	1.31
Lab Results	
Density (ppg)	14.1
Working Time (hr:min)	3:12
Thickening Time (hr:min)	3:50
Compressive Strength (psi/12h)	691
Compressive Strength (psi/24h)	1283

2. Job Sequence / Procedure 1of 2

US Treatment Report

Magnum Cementing Services

Customer:	OCCIDENTAL PETROLEUM CORP.			**Job #:**	JOB00167339
Rep:	David Cornett	**Rig:**	IKON 112	**Job Date**	Oct 06 @ 00:00
Supervisor:	ANTHONY GARCIA	**Well:**	SWARTZ 4-9HZ	**Time Requested:**	Oct 06 @ 08:00
Job Type:	US Primary Casing-Surface	**UWI:**	SWARTZ 4-9HZ	**Time Arrived:**	Oct 06 @ 15:00
		Surface:	NWNE SEC4 T3N R67W	**Time Released:**	Oct 06 @ 17:30

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

Yield: 1.31 ft3/sk = 186.65bbls Mix Water: 6.06 gal/sk = 4848gal

BHCT (F)	88	BHST (F)	103	Surface Casing Size (in)	9.625
Surface Casing Grade	L80	Surface Casing Weight (lb/ft)	36	Collapse Csg Pressure (psi)	2020
Float Depth (ft)	1769	Funnel Vis (sec/qt)	TBD	Max Pressure (psi)	1500
Max Tbg Pressure (psi)	3520	Mud Type	WBM	Plug Size (in)	9.625
Plug Type	Rig Supplied	TMD (ft)	1821	TVD (ft)	1810

Treatment Info: Sacks Used: 800 Sacks Not Used: 0

Preflush: 10bbls MAG Mark & 40bbls MAG Sweep

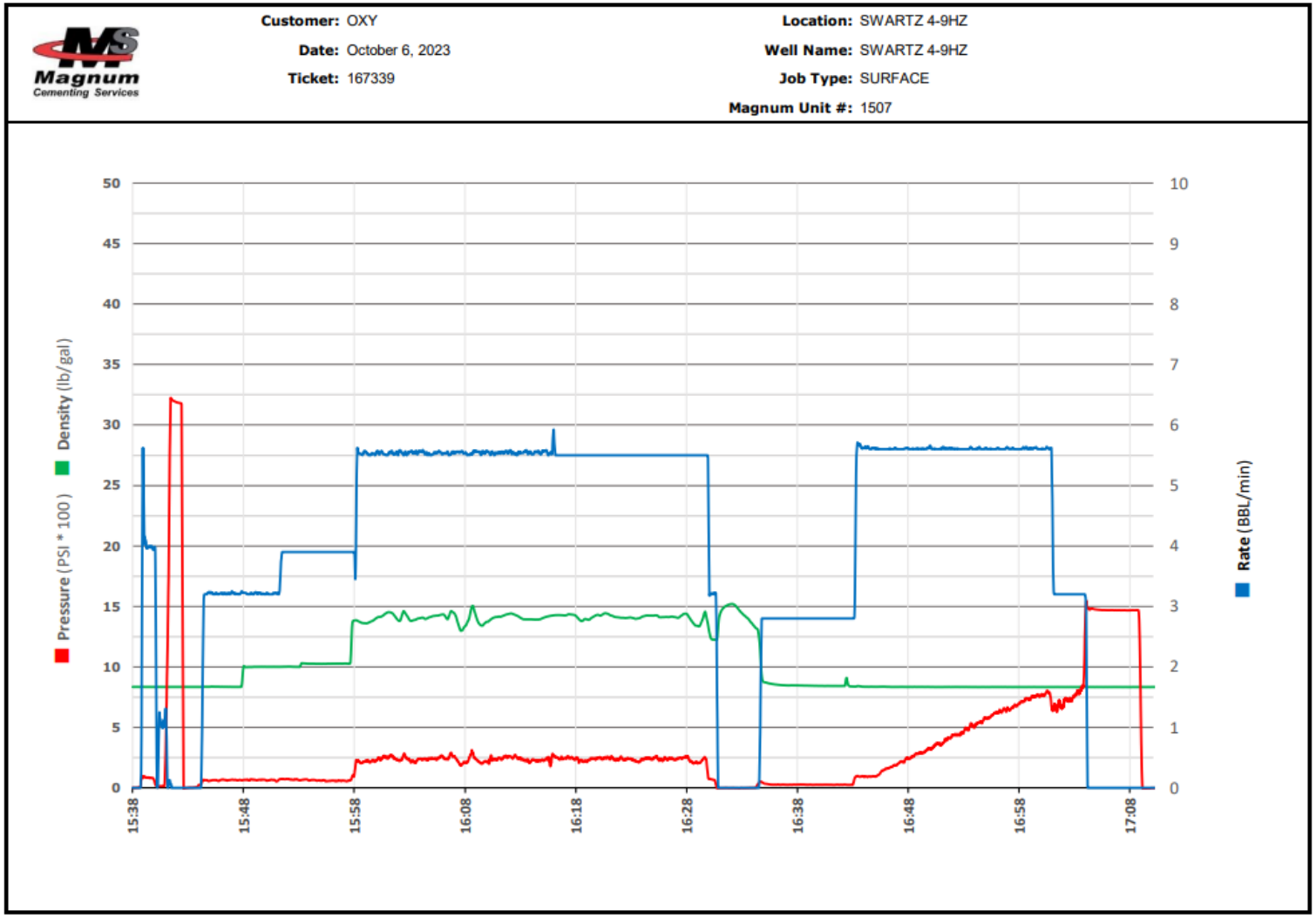
Displace: 138.2bbls Fresh Water

Circulation Time:	1				
Slurry Temp:	72	Bulk Sample:	Yes		
Water Temp:	61	Water Sample:	Yes		
Bulk Temp:	60	Slurry Sample:	Yes		
Air Temp:	59	Air Pressure	30.3		
Slurry Returns:	31	Plug Bumped:	Yes	Pump Out Lines:	No
Cement Class:	Type III	Humidity:	44	Precipitation:	0
				Float Held:	Yes

Job Sequence / Procedure 2 of 2

Time	Pressure psi	Annular Pressure psi	Volume Per Stage bbls	Total Stage Volume bbls	Rate bbls/min	Treatment Detail
13:00	0.00					Arrive on Location - GET NUMBERS FROM COMPANY MAN, SPOT IN EQUIPMENT AND TEST WATER PH-7 CHLORIDES-100 HARDNESS-300
15:10	0.00					Safety Meeting - HELD SAFETY MEETING TO GO OVER SAFETY AND JOB PROCEDURES WITH RIG CREW, COMPANY MAN AND MAGNUM CREW
15:40	150.00			5	4	Fill Lines - LOADED BOTTOM PLUG INTO CASING
15:42	3,200.00			0.5	.5	Start Pressure Test - TEST LINES TO PSI 3200
15:44	100.00			50	4	Pump Preflush - 10 BBLS MAG MARK 40 BBLS MAG SWEEP
15:58	300.00			186	5	Pump Slurry - MIX AND PUMP 800 SKS/186 BBLS OF MAG S 14.1 PPG VERIFIED WITH PRESSUREIZED SCALES
16:31	0.00					Stop Pumping
16:32	0.00					Drop Plug - DROP TOP PLUG WITNESSED BY COMPANY MAN
16:35	650.00			120	5	Displace - FRESH WATER
17:01	700.00			18	3	Decrease Rate - SLOWED TO BUMP PLUG
17:05	1,500.00					Bump Plug - 31 BBLS OF CEMENT TO SURFACE TOATAL DISPLACEMENT 138.2 bbls
17:10	0.00					Check Floats - HOLD PRESSURE FOR 5 MINUTES 1 BBL BACK FLOATS HELD
17:15	0.00					Wash Up Truck - WASH UP INTO CELLAR
17:30	0.00					Leave Location

3. Job Graph


Customer: OXY
Date: October 6, 2023
Ticket: 167339
Location: SWARTZ 4-9HZ
Well Name: SWARTZ 4-9HZ
Job Type: SURFACE
Magnum Unit #: 1507
Magnum Cementing Services
Pressure (PSI * 100)
Density (lb/gal)
Rate (BBL/min)
50
45
40
35
30
25
20
15
10
5
0
10
9
8
7
6
5
4
3
2
1
0
15:38
15:48
15:58
16:08
16:18
16:28
16:38
16:48
16:58
17:08

4. Lab Testing Results

SECTION III: REQUIRED TEST							
TEST REQUESTED:	TT	FL	FW	RH	SGSA	UCA	WATER
	√	☐	☐	√	☐	√	☐

SECTION IV: WELL INFORMATION

CEMENT TYPE:	Surface Casing		
TMD (ft):	1849	**BHCT °F:**	88
TVD (ft):	1800	**BHST °F:**	103
MUD Type:	WBM		

SECTION V: BLEND INFORMATION

Blend Name: MAG S 14.1

Additives	(%)	Pre-hydrated additive	Specific Condition
MCA-1	0.25	☐	
MCDF-P	0.10	☐	

Density:	14.1 lbs/gal
Mix water:	6.07 gal/sk
Yield:	1.31 ft³/sk
Lab Cement:	☐
Lab Water:	√
Field Cement:	√
Field Water:	☐

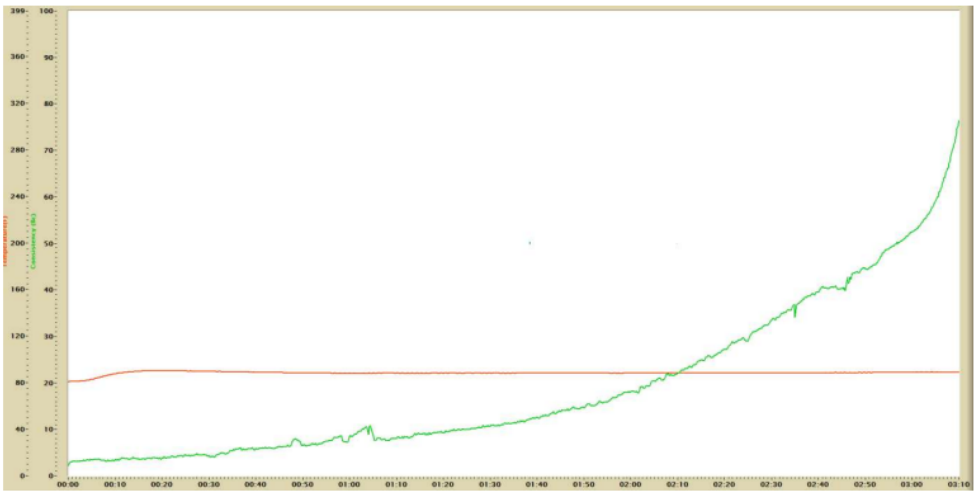
SECTION VI: TEST RESULTS

Load Ticket #	Working Time (40Bc)	Thickening Time (70Bc)
18574 (4-6HZ)	2:34	3:10

Compressive Strength	8hr	12hr	24hr	48hr	Time to 500 psi
(psi)	1147	1518	1870	--	4:18

Rheology	300	200	100	6	3	@10sec	@10min
(D.R.)	62	54	44	26	22.1	23.3	27.3

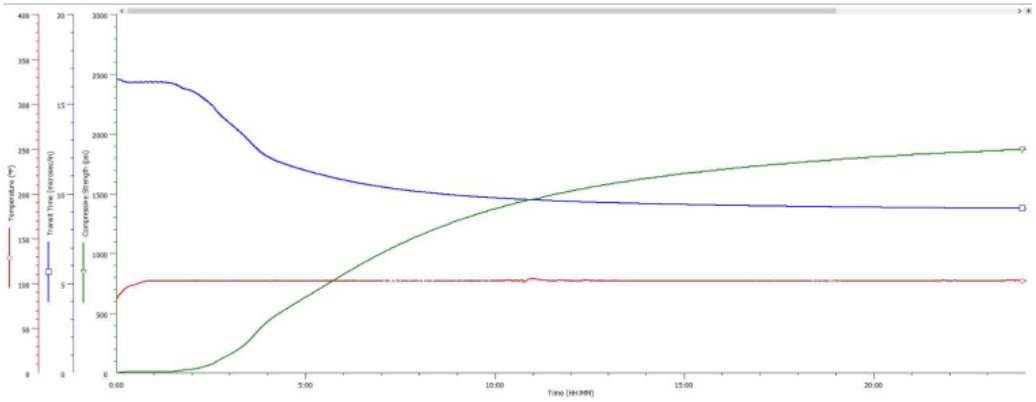
THICKENING TIME TEST RESULTS



TESTED CEMENT INFORMATION

BLEND NAME: MAG S 14.1
BHCT °F: 88
WORKING TIME (40Bc): 2:34
THICKENING TIME (70Bc): 3:10

COMPRESSIVE STRENGTH (UCA) TEST RESULTS



BLEND NAME: MAG S 14.1
BHST °F: 103

STRENGTH @8hr (psi)	STRENGTH @12hr (psi)	STRENGTH @24hr (psi)	STRENGTH @ 48hr (psi)	TIME TO 500 psi (HH:MM)
1147	1518	1870	--	4:18