

**QUICKSILVER RESOURCES INC-EBUSINESS
DO NOT MAIL-801 CHERRY ST
FORT WORTH, Texas**

K-DIAMOND 32-10

DHS 14

Post Job Summary **Cement Intermediate Casing**

Date Prepared: 10/26/12
Version: 1

Service Supervisor: PAUU, SEMISI

Submitted by: Thomas Stumpf

HALLIBURTON

HALLIBURTON

Wellbore Geometry

Job Tubulars					MD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Casing	SURFACE CASING	11.75	11.084	42.00	0.00	1,192.00	
Open Hole Section	Open Hole		10.625		1,192.00	6,420.00	0.00
Casing	Casins String	8.63	7.921	32.00	0.00	6,420.00	50.00

Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Density lbm/gal	Avg Rate bbl/min	Volume
1	Spacer	TUNED SPACER III	10.50	5.00	20.0 bbl
2	Cement Slurry	EconoCem	12.20	5.00	650.0 sacks
3	Cement Slurry	ExtendaCem	14.20	5.00	131.0 sacks
4	Mud	Displacement	8.40	5.00	378.0 bbl

Job Summary

Job Information

Job Start Date	10/17/2012 9:45:00 AM
Job MD	6,420.0 ft
Mud Type	INTEGRADE
Actual Mud Density	9 lbm/gal

Cementing Equipment

Did Plugs Bump?	Yes
Did Stage Cementing Tool Open Properly?	Unknown

Service Supervisor Reports

Job Log

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
10/16/2012 23:30	Call Out				
10/17/2012 01:00	Pre-Convoy Safety Meeting				
10/17/2012 01:15	Depart from Service Center or Other Site				
10/17/2012 04:00	Arrive At Loc				
10/17/2012 04:15	Assessment Of Location Safety Meeting				
10/17/2012 06:15	Pre-Rig Up Safety Meeting				
10/17/2012 06:30	Rig-Up Equipment				
10/17/2012 07:30	Rig-Up Completed				
10/17/2012 09:45	Pre-Job Safety Meeting				HELD SAFETY MEETING WITH RIG CREW AND CONNECTED HALLIBURTON CEMENT HEAD AND LINES
10/17/2012 10:30	Pressure Test	0.5		4000.0	TESTED PUMP AND LINES TO 4000 PSI. TEST HELD WITH NO LEAKS
10/17/2012 10:35	Pump Spacer	4		300.0	PUMPED 20 BBL OF TSIII SPACER WITH 10 GAL OF MUSOL AND 10 GAL OF SEM7
10/17/2012 10:45	Shutdown				SHUTDOWN DUE TO LOSING PRIME. SWAPPED LINES AT END OF SPACER TO REPRIME CENTRIFUGAL
10/17/2012 10:48	Prime Pumps				RE PRIMED CENTRIFUGAL AND STARTED MIXING LEAD CEMENT
10/17/2012 10:58	Pump Lead Cement	5		360.0	PUMPED 650 SKS (257 BBLs) OF LEAD CEMENT @ 12.2#/GAL 2.22 YIELD 12.19 GAL/SK

HALLIBURTON

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
10/17/2012 11:48	Pump Tail Cement	3.5		150.0	PUMPED 131 SKS (30 BBLS) OF TAIL CEMENT @14.2#/GAL 1.28 YIELD 5.6 GAL/SK
10/17/2012 11:55	Shutdown				SHUTDOWN AND DROPPED 8.625" HWE TOP PLUG. PLUG LAUNCHED AND VERIFIED BY SEMISI PAUU
10/17/2012 11:56	Pump Displacement	6.5		150.0	STARTED DISPLACEMENT. PUMPS AND LINES WASHED UP ON TOP OF PLUG WITH 10 BBL FRESH BEFORE STAGING TO OBM
10/17/2012 12:26	Slow Rate	5	160	120.0	SLOWED RATE DUE TO RIG MUD PUMP NOT KEEPING UP WITH DISPLACEMENT
10/17/2012 13:09	Slow Rate	2	370	580.0	SLOWED RATE IN PREPARATION TO LANDING PLUG
10/17/2012 13:13	Bump Plug	2	378	600.0	LANDED THE PLUG AT 600 PSI. PRESSURED OVER 500 PSI TO 1100 PSI AS REQUESTED BY COMPANY MAN
10/17/2012 13:15	Check Floats				CHECKED FLOATS BACK TO TRUCK. FLOATS HELD WITH 2 BBL BACK
10/17/2012 13:25	Pre-Rig Down Safety Meeting				
10/17/2012 13:30	Rig-Down Equipment				
10/17/2012 14:30	Rig-Down Completed				
10/17/2012 14:45	Pre-Convoy Safety Meeting				
10/17/2012 15:00	Depart Location for Service Center or Other Site				THIS JOB WAS COMPLETED SAFELY BY SEMISI PAUU AND CREW. THANK YOU FOR CHOOSING HALLIBURTON CEMENTING

The Road to Excellence Starts with Safety

Sold To #: 346707	Ship To #: 2954766	Quote #:	Sales Order #: 9877225
Customer: QUICKSILVER RESOURCES INC-EBUSINESS		Customer Rep: Damme, Dustin	
Well Name: K-DIAMOND		Well #: 32-10	API/UWI #:
Field:	City (SAP): CRAIG	County/Parish: Moffat	State: Colorado
Contractor: DHS		Rig/Platform Name/Num: 14	
Job Purpose: Cement Intermediate Casing			
Well Type: Exploratory / Wildcat		Job Type: Cement Intermediate Casing	
Sales Person: SCOTT, KYLE		Srv Supervisor: PAUU, SEMISI	MBU ID Emp #: 445202

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARCHULETA, JACOB Joshua	11.0	491140	HUNTER, SAMUEL David	11.0	479669	PAUU, SEMISI Tu'a	18.0	445202
PORTER, MICHAEL James	11.0	491145						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10872113	120 mile	10978339	120 mile	10994445	120 mile	11338215	120 mile
11410666	120 mile	11526496	120 mile				

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name					Date	Time	Time Zone
Formation Depth (MD)	Top	Bottom			Called Out	16 - Oct - 2012	23:30 MST
Form Type		BHST			On Location	17 - Oct - 2012	04:00 MST
Job depth MD	6420. ft	Job Depth TVD			Job Started	17 - Oct - 2012	09:45 MST
Water Depth		Wk Ht Above Floor			Job Completed	17 - Oct - 2012	13:15 MST
Perforation Depth (MD)	From	To			Departed Loc	17 - Oct - 2012	15:00 MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Open Hole				10.625				1192.	6420.		
Casins String	New		8.625	7.921	32.		HCK-55	.	6420.		
SURFACE CASING	Unknown		11.75	11.084	42.		H-40	.	1192.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,8 5/8,HWE,7.20 MIN/8.09 MA	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Summit
Version:

Friday, October 26, 2012 11:31:00

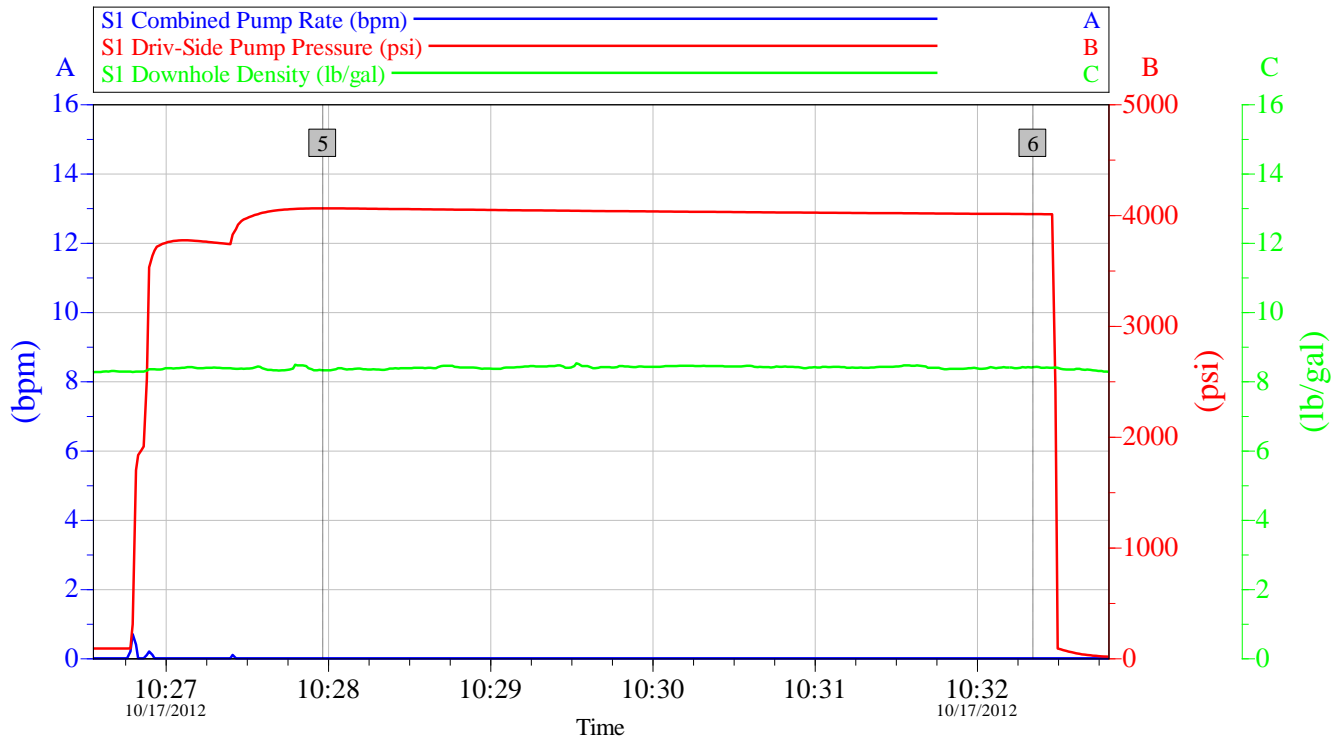
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%		
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty			
Fluid Data															
Stage/Plug #: 1															
Fluid #	Stage Type	Fluid Name			Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk				
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)			20.00	bbl	10.5	5.62	36.69	5.0					
	36.687 gal/bbl	FRESH WATER													
	0.25 gal/bbl	MUSOL(R) A, BULK (100003696)													
	0.25 gal/bbl	SEM-7, 55 GAL DRUM (100001626)													
	1 lbm/bbl	D-AIR 3000L, 5 GAL PAIL (101007444)													
	88.5 lbm/bbl	BARITE, BULK (100003681)													
2	EconoCem	ECONOCEM (TM) SYSTEM (452992)			650.0	sacks	12.2	2.22	12.19	5.0	12.19				
	0.4 %	HALAD(R)-344, 50 LB (100003670)													
	0.125 lbm	POLY-E-FLAKE (101216940)													
	12.19 Gal	FRESH WATER													
3	ExtendaCem	EXTENDACEM (TM) SYSTEM (452981)			131.0	sacks	14.2	1.28	5.6	5.0	5.6				
	0.2 %	HALAD(R)-344, 50 LB (100003670)													
	0.4 %	HR-5, 50 LB SK (100005050)													
	0.125 lbm	POLY-E-FLAKE (101216940)													
	5.6 Gal	FRESH WATER													
4	Displacement				378.00	bbl	8.4			5.0					
Calculated Values		Pressures			Volumes										
Displacement		Shut In: Instant				Lost Returns				Cement Slurry				Pad	
Top Of Cement		5 Min				Cement Returns				Actual Displacement				Treatment	
Frac Gradient		15 Min				Spacers				Load and Breakdown				Total Job	
Rates															
Circulating		Mixing				Displacement				Avg. Job					
Cement Left In Pipe		Amount	50 ft	Reason		Shoe Joint									
Frac Ring # 1 @		ID		Frac ring # 2 @		ID		Frac Ring # 3 @		ID		Frac Ring # 4 @		ID	
The Information Stated Herein Is Correct					Customer Representative Signature										

HALLIBURTON

Data Acquisition

QUICKSILVER 8.625" INTERMEDIATE PRESSURE TEST

OCTOBER-17-2012 SO# 9877225



Global Event Log					
Intersection		SDPP	Intersection		SDPP
5	Test Lines	10:27:58 4060	6	End Test	10:32:21 4009

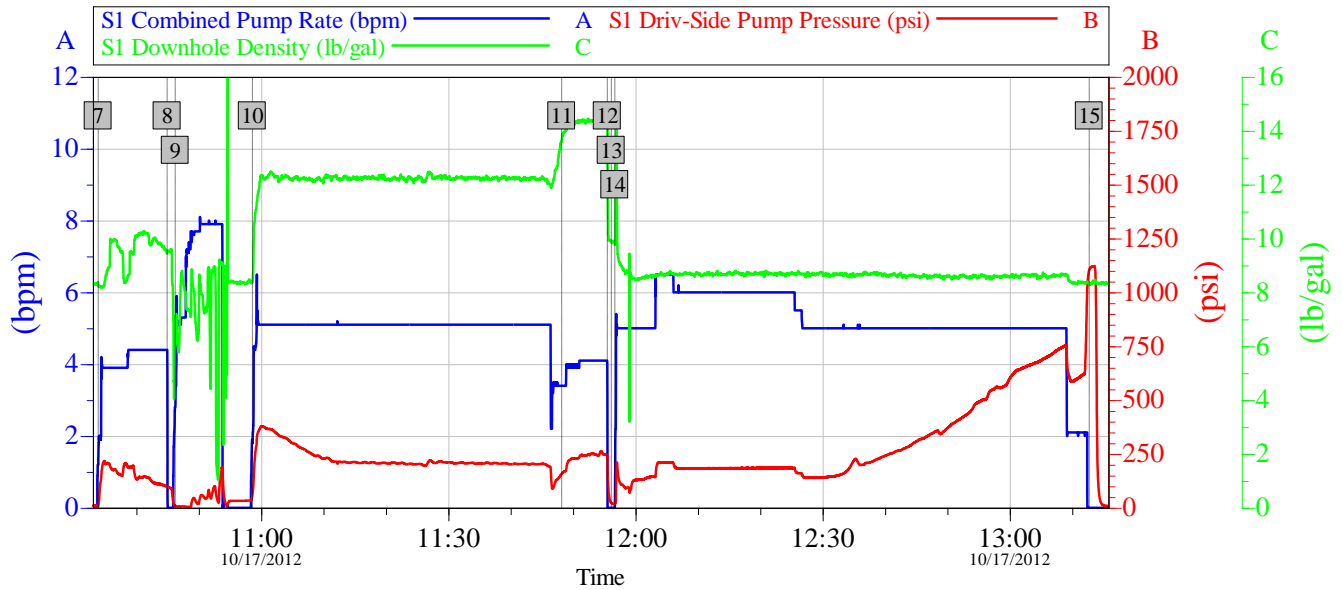
Customer: QUICKSILVER	Job Date: 17-Oct-2012	Sales Order #: 9877225
Well Description: K-DIAMOND 32-10	RIG NAME: DHS 14	PUMP TRUCK: 10872113
SVC LDR: N/A	SVC SUP: SEMISI PAUU	SVC OPR: SAM HUNTER

OptiCem v6.4.10
17-Oct-12 11:02

HALLIBURTON

QUICKSILVER 8.625" INTERMEDIATE JOB

OCTOBER-17-2012 SO# 9877225



Global Event Log					
Intersection		SDPP	Intersection		SDPP
7	Pump Spacer 1	10:33:52 8.007	8	Shutdown	10:44:55 99.00
9	Prime Pumps	10:46:13 8.000	10	Pump Lead Cement	10:58:35 57.02
11	Pump Tail Cement	11:48:11 158.0	12	Shutdown	11:55:28 248.1
13	Drop Plug	11:56:06 23.00	14	Pump Displacement	11:56:41 18.00
15	Bump Plug	13:12:44 1104			

Customer: QUICKSILVER	Job Date: 17-Oct-2012	Sales Order #: 9877225
Well Description: K-DIAMOND 32-10	RIG NAME: DHS 14	PUMP TRUCK: 10872113
SVC LDR: N/A	SVC SUP: SEMISI PAUU	SVC OPR: SAM HUNTER

OptiCem v6.4.10
17-Oct-12 14:20

HALLIBURTON

Lab Data

HALLIBURTON

Cementing Rockies, Vernal

LAB RESULTS - Lead

Job Information

Request/Slurry	279504/1	Rig Name	DHS Drilling #14	Date	15/OCT/2012
Submitted By	Christopher Cicirello	Job Type	Intermediate Casing	Bulk Plant	Vernal
Customer	Quicksilver Resources Inc.	Location	Moffat	Well	K-DIAMOND 32-10

Well Information

Casing/Liner Size	7"	Depth MD	6900 ft	BHST	178 F
Hole Size	8 3/4"	Depth TVD	6900 ft	BHCT	126 F

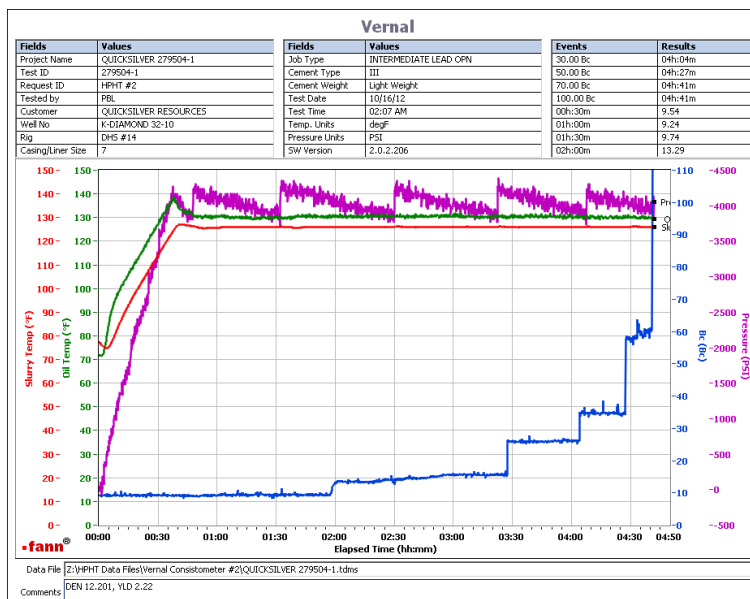
Cement Information - Lead Design

Conc	UOM	Cement/Additive	Type	Sample Date	Lot No.	Cement Properties		
100.00	% BWOC	Cement Blend	Bulk	Oct 15, 2012		Slurry Density	12.20	PPG
12.19	gal/sack	Fresh Water	Lab	Mar 08, 2012	3/8/12	Slurry Yield	2.22	ft ³ /sk
						Water Requirement	12.19	GPS
						Total Mix Fluid	12.19	GPS

Operation Test Results Request ID 279504/1

Thickening Time

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
126	4,134	37	9	04:04	04:27	04:41	04:41



Job Information

Request/Slurry	279503/1	Rig Name	DHS Drilling #14	Date	15/OCT/2012
Submitted By	Christopher Cicirello	Job Type	Intermediate Casing	Bulk Plant	Vernal
Customer	Quicksilver Resources Inc.	Location	Moffat	Well	K-DIAMOND 32-10

Well Information

Casing/Liner Size	7"	Depth MD	6900 ft	BHST	177 F
Hole Size	8 3/4"	Depth TVD	6900 ft	BHCT	126 F

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density	8.8 PPG
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Cement Information - Tail Design

Conc	UOM	Cement/Additive	Type	Sample Date	Lot No.	Cement Properties		
100.00	% BWOC	Cement Blend	Bulk	Oct 15, 2012		Slurry Density	14.20	PPG
5.60	gal/sack	Fresh Water	Lab	Mar 08, 2012	3/8/12	Slurry Yield	1.28	ft ³ /sk
						Water Requirement	5.6	GPS
						Total Mix Fluid	5.6	GPS

Operation Test Results Request ID 279503/1

Thickening Time

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
126	4,130	37	21	03:41	03:54	03:56	03:58

