



Great Western Operating Company, LLC

Surface Post Job Report

Schneider HD 11-142HC (API 05-123-46409)

S:7 T:4N R:66W Weld CO



Great Western Operating Company, LLC

Great Western Operating Company, LLC | 1801 Broadway, Suite 500 | Denver, CO 80202

Dear Great Western Operating Company,

Thank you for the opportunity to provide cementing services on this well. BJ Services strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact BJ Services at any time.

Sincerely,
Jacob Ojeda
Field Engineer I | (763) 516-3012 | jacob.ojeda@bjsservices.com

Field Office 1716 East Allison Rd., Cheyenne WY, 82007
Phone: (307) 638-5585

Sales Office 999 18th St. Suite 1200 Denver, CO 80202
Phone: (281) 408-2361



Cementing Treatment

Start Date	4/19/2018	Well	SCHNEIDER HD 11-142HC
End Date	4/20/2018	County	WELD
Client	GREAT WESTERN OPERATING COMPANY, LLC	State/Province	CO
Service Supervisor	Albert Snyder	API	05-123-46409
Field Ticket No.	FT-05920-B3Y4C10202-35343	Type of Job	Surface
District	Cheyenne, WY		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50			1,572.00	1,572.00	15.00		
Casing	8.92	9.63	36.00	1,572.00	1,572.00		J-55	LTC

Shoe Length (ft): 44

HARDWARE

Bottom Plug Used?	No
Top Plug Used?	Yes
Top Plug Provided By	Great Western
Top Plug Size	9 5/8
Centralizers Used	Yes
Centralizers Quantity	15
Landing Collar Depth (ft)	1,527
Tool Type	Float collar
Tool Depth (ft)	1,527
Max Casing Pressure - Rated (psi)	3520
Max Casing Pressure - Operated (psi)	2200
Pipe Movement	None
Job Pumped Through	Cement head
Top Connection Thread	8 rd
Top Connection Size	9 5/8



Cementing Treatment

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	8.33
Circulation Prior to Job	Yes	Mud Density Out (ppg)	8.33
Circulation Time (min)	180	Solids Present at End of Circulation	No
Circulation Rate (bpm)	5	Flare Prior to/during the Cement Job	No
Circulation Volume (bbls)	900	Gas Present	No
Lost Circulation Prior to Cement Job	No		

TEMPERATURE

Ambient Temperature (°F)	70	Slurry Cement Temperature (°F)	75
Mix Water Temperature (°F)	75		

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water	8.3300			0.00				20.0000
Tail Slurry	BJCem S100.3.XC	14.5000	1.3901	6.78	0.00	1,557.00	640	886.0000	157.7000
Displacement Final	Water	8.3300			0.00			0.0000	116.2000

Fluid Type	Fluid Name	Component	Concentration	UOM
Tail Slurry	BJCem S100.3.XC	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.3.XC	FOAM PREVENTER, FP-13L	0.0300	GALS/SK

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Comments
22:30	Water	5.00	20.00	420	
22:40	BJCem S100.3.XC	5.00	157.70	586	
23:12	Water	5.00	116.20	700	Landed at 1200 psi



Cementing Treatment

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ services	Amount of Cement Returned/Reversed	1 barrel
Calculated Displacement Volume (bbls)	117	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	117	Amount of Spacer to Surface	20 bbls
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0
Bump Plug	Yes	Amount Bled Back After Job	1 barrel
Bump Plug Pressure (psi)	1200 psi	Total Volume Pumped (bbls)	295
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Yes	Lost Circulation During Cement Job	No

COMMENTS

Treatment Report

Plug landed on calculated that was 117 bbls. Got back 1 barrels of cement to surface. Got back 20 bbls of spacer. Mixed 640 sks of s-100 at 14.5#. Job went as planned.

EVENT LOG

Service Line

Cementing

Client

GREAT WESTERN OPERATING COMPANY,

District

Cheyenne, WY

Job Type

Surface

Supervisor

Albert Snyder



Quotes:

QUO-10423-S9K3L3

Plans:

ORD-05920-B3Y4C1

Executions:

EXC-05920-B3Y4C102

Seq.	Well	Start Dt./Time	End Dt./Time	Duration	Category	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	SCHNEIDER HD 11-142HC	04/19/2018 12:06	04/19/2018 12:06	0.00	Mobilization	Callout					Called out at 12:00 requested on location at 18:00
2	SCHNEIDER HD 11-142HC	04/19/2018 13:11	04/19/2018 13:30	0.32	Operational	Safety Meeting					Steacs Journey Briefing
3	SCHNEIDER HD 11-142HC	04/19/2018 14:00	04/19/2018 14:00	0.00	Mobilization	Leave Location					Travel in convoy keep each other in view at all times
4	SCHNEIDER HD 11-142HC	04/19/2018 15:30	04/19/2018 15:30	0.00	Operational	Arrive on Location					Arrived on location at 15:30 2.5 hour early
5	SCHNEIDER HD 11-142HC	04/19/2018 17:11	04/19/2018 17:20	0.15	Operational	Safety Meeting					Steacs Briefing rig up
	SCHNEIDER HD 11-142HC	04/19/2018 17:30	04/19/2018 21:15	3.75	StandBy	Customer					Waiting on pipe to be pulled out and casing to be ran
7	SCHNEIDER HD 11-142HC	04/19/2018 21:15	04/19/2018 22:00	0.75	Operational	Rig Up					used safety and did not hurry
8	SCHNEIDER HD 11-142HC	04/19/2018 22:00	04/19/2018 22:15	0.25	Operational	Safety Meeting					Discussed job with rig crew
9	SCHNEIDER HD 11-142HC	04/19/2018 22:15	04/19/2018 22:20	0.08	Operational	Other (See comment)	8.3300	2.00	2.00	150.00	Filled lines 2 barrels of fresh water
10	SCHNEIDER HD 11-142HC	04/19/2018 22:20	04/19/2018 22:28	0.13	Operational	Pressure Test	8.3300	1.00	1.00	2,200.00	test lines to 2000 psi lines are holding good
11	SCHNEIDER HD 11-142HC	04/19/2018 22:28	04/19/2018 22:40	0.20	Operational	Pump Spacer	8.3300	3.00	20.00	420.00	Pump 20 barrels of dyed fresh water spacer
12	SCHNEIDER HD 11-142HC	04/19/2018 22:40	04/19/2018 23:12	0.53	Operational	Pump Tail Cement	14.5000	5.00	158.40	581.00	mix and pump 640 sks of s-100 at 14.5# with 1.39 yield and 6.78 water requirement
13	SCHNEIDER HD 11-142HC	04/19/2018 23:12	04/19/2018 23:15	0.05	Operational	Drop Top Plug					Dropped their plug wash on top of the plug
14	SCHNEIDER HD 11-142HC	04/19/2018 23:15	04/19/2018 23:27	0.20	Operational	Pump Displacement	8.3300	6.00	90.00	700.00	spacer back to surface 20 bbls
15	SCHNEIDER HD 11-142HC	04/19/2018 23:27	04/19/2018 23:31	0.07	Operational	Pump Displacement	8.3300	6.00	116.00	720.00	cement back to surface 1 barrel back
16	SCHNEIDER HD 11-142HC	04/19/2018 23:31	04/19/2018 23:33	0.03	Operational	Land Plug	8.3300	3.00	117.00	1,200.00	Plug landed on calculated that was 117 bbls
17	SCHNEIDER HD 11-142HC	04/19/2018 23:33	04/19/2018 23:37	0.07	Operational	Check Floats					float is holding flowed back 1 barrel
18	SCHNEIDER HD 11-142HC	04/19/2018 23:44	04/20/2018 0:01	0.28	Operational	Pressure Test	8.3300	1.00	1.00	1,000.00	conduct casing pressure test 1000 psi for 15 minutes test was good
19	SCHNEIDER HD 11-142HC	04/20/2018 0:20	04/20/2018 0:30	0.17	Operational	Safety Meeting					Steacs Briefing rig down
20	SCHNEIDER HD 11-142HC	04/20/2018 0:45	04/20/2018 1:00	0.25	Operational	Rig Down					Rig down safely no need to hurry
21	SCHNEIDER HD 11-142HC	04/20/2018 1:15	04/20/2018 1:45	0.50	Operational	Other (See comment)					Afeter action review discussed how to make job go better next time

EVENT LOG

Service Line

Cementing

Client

GREAT WESTERN OPERATING COMPANY,

District

Cheyenne, WY

Job Type

Surface

Supervisor

Albert Snyder

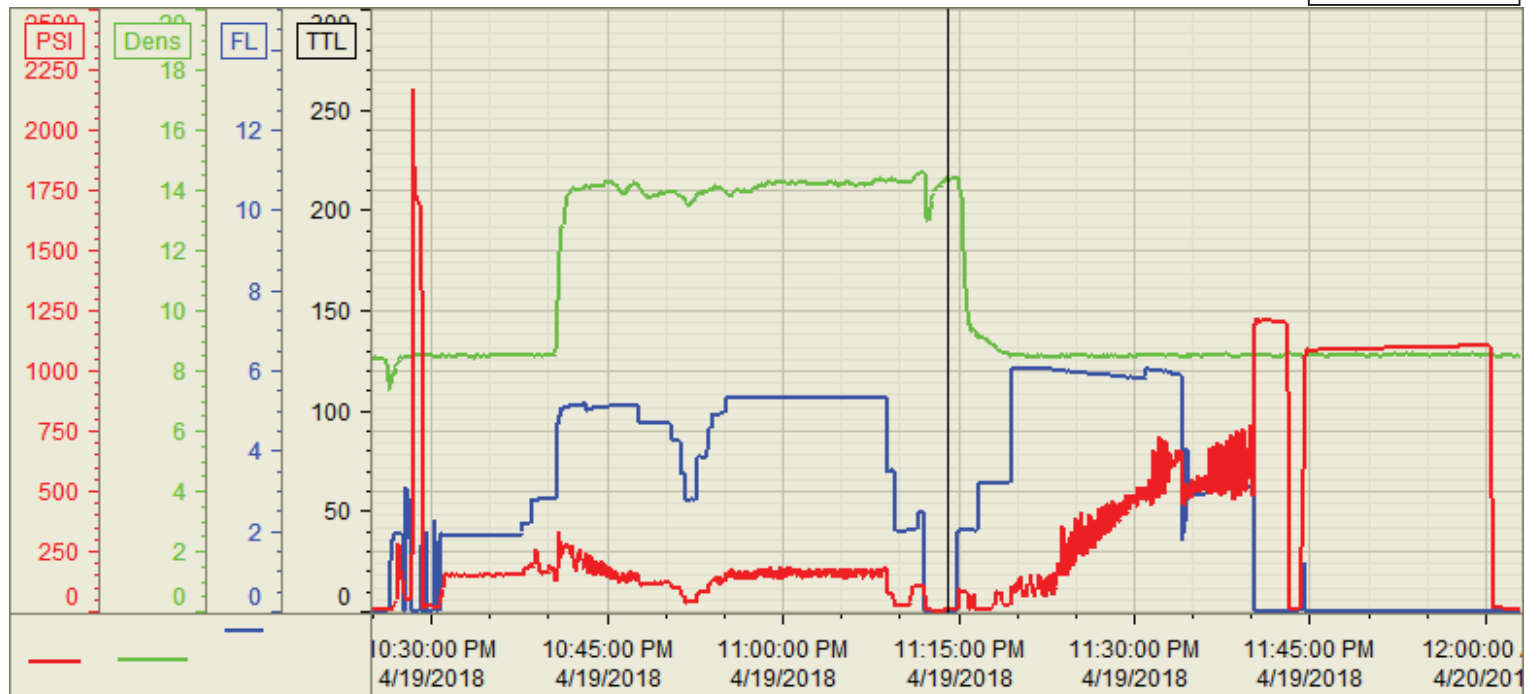


Seq.	Well	Start Dt./Time	End Dt./Time	Duration	Category	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
22	SCHNEIDER HD 11-142HC	04/20/2018 2:00	04/20/2018 2:15	0.25	Operational	Safety Meeting					Steacs journey back to the yard
23	SCHNEIDER HD 11-142HC	04/20/2018 2:30	04/20/2018 2:30	0.00	Mobilization	Leave Location					discuss journey back to cheyenne
24	SCHNEIDER HD 11-142HC	04/20/2018 12:00	04/20/2018 12:00	0.00	Mobilization	Arrive on Location					leave location in convoy

Customer: GREAT WESTERN
Well Number: 11-142HC
Lease Info: SCHNEIDER HC

Print Date/Time

4/20/2018 12:48:46 AM



	Name	Y value	X value/time stamp	Tag name Y
1	PS - Press (PSI)	4.3 i.	4/19/2018 11:14:02 PM i.	Cementer\PS_DISCHARGE_PRESS_DIAL
2	DH Density (PPG)	14.40	4/19/2018 11:14:00 PM	Cementer\DENSITY2_ACTUAL_RATE
3	Combined pump rate	0.00 i.	4/19/2018 11:14:02 PM i.	Cementer\Flow_Combined
4				
5				
				Source: Control1 12:48:47 AM