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# **Petroshare Corporation**

## **PRODUCTION POST JOB REPORT**

**Shook 3-10-2CDH 05-001-09973**  
**S:3 T:1S R:67W Adams CO**

CallSheet #: 888  
Proposal #: 13359



**PRODUCTION Post Job Report**

**Attention:** Mr. Bill Lloyd | (303) 500-1160 | blloyd@petroshare.com  
Petroshare Corporation  
9635 Maroon Circle, Ste 400 | Englewood, CO 80112

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Dear Mr. Lloyd,

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,

**Oscar Medrano**

Technical Specialist-II | (307) 996-6222 | Oscar.Medrano@bjservices.com

**Field Office**      1716 East Allison Rd., Cheyenne WY, 82007  
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## 1 Job Details & Summary

### 1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	n/a	0	1804	0
Open Hole	Outer	n/a	8.5	n/a	n/a	1804	13140	15
Casing	Inner	5.5	4.778	20	Buttress	0	13125	0

### 1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2	Mileage
Silo	654			200
Silo	664			200
Bulk Trailer	PPC41311	Nepgen, AJ		200
Cement Pump	101	Montoya, Hector		200
Light Duty Pickups	5	Dent, Jerod	Groneman, Josh	200

### 1.3 Timing

Event	Date/Time
Call Out	6/9/2017 06:00
Depart Facility	6/9/2017 08:30
On Location	6/9/2017 10:30
Rig Up Iron	6/9/2017 11:00
Job Started	6/10/2017 09:01
Job Completed	6/10/2017 12:17
Rig Down Iron	6/10/2017 12:30
Depart Location	6/10/2017 04:30

### 1.4 General Job Information

Metrics	Value
Well Fluid Density	10.8 lb/gal
Well Fluid Type	OBM
Rig Circulation Vol	720 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	289.4 bbls
Actual Displacement	285 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	74 bbls

### 1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	34
Yield Point	7
10 sec. SGS	4
10 min. SGS	10
30 min. SGS	0
Filtrate	12
Flow Line Temp.	150

### 1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	10.8 lb/gal
Well Fluid Density Out of Well	10.8 lb/gal

### 1.7 Job Details (cont.)

Metrics	Value
BHCT	228 °F
BHST	228 °F



### 1.8 Circulation

Lost Circulation Experienced
No

### 1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	CD Spacer	Spacer	11.00			32.73		40.00	0
1	2	ALTCem P100-X2	Lead	12.50	2.07	11.81		1014.00	373.92	0
1	3	ALTCem P50-X1	Tail	13.50	1.47	7.43		940.00	246.88	7922
1	4	Water	DisplacementFinal	8.33			42.00		288.00	0

### 1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom	Start (gal)	End (gal)	Used (gal)
1	1	Spacer	CD Spacer	ASR-20	StrengthRetrogression	179.68	lb/bbl			
1	1	Spacer	CD Spacer	AR-31	Retarder	0.79	lb/bbl			
1	1	Spacer	CD Spacer	ASF-20	Surfactant	0.50	gal/bbl	20	0	20
1	1	Spacer	CD Spacer	ASF-80	Surfactant	0.50	gal/bbl	20	0	20
1	1	Spacer	CD Spacer	AVS-10	Viscosifier	0.80	lb/bbl			
1	2	Lead	ALTCem P100-X2	AC3-10	Cement	100.00	%			
1	2	Lead	ALTCem P100-X2	ABX-30	BondEnhancer	0.40	%BWOB			
1	2	Lead	ALTCem P100-X2	ADF-11	Defoamer	0.30	%BWOB			
1	2	Lead	ALTCem P100-X2	AFL-10	FluidLoss	0.30	%BWOB			
1	2	Lead	ALTCem P100-X2	AR-31	Retarder	0.20	%BWOB			
1	2	Lead	ALTCem P100-X2	AVS-10	Viscosifier	0.10	%BWOB			
1	2	Lead	ALTCem P100-X2	ADF-20	Defoamer	0.00		1.5	0	1.5
1	3	Tail	ALTCem P50-X1	ACG-10	Cement	50.00	%			
1	3	Tail	ALTCem P50-X1	AFA-10	Extender	50.00	%			



1	3	Tail	ALTCem P50-X1	ADF-11	Defoamer	0.30	%BWOB			
1	3	Tail	ALTCem P50-X1	AFL-50	FluidLoss	0.20	%BWOB			
1	3	Tail	ALTCem P50-X1	AR-20	Retarder	0.10	%BWOB			
1	3	Tail	ALTCem P50-X1	AVS-10	Viscosifier	0.10	%BWOB			
1	3	Tail	ALTCem P50-X1	AVS-50	Viscosifier	2.00	%BWOB			



## 2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Call out	6/9/2017	06:00					BJ crew called to Petroshare Shook 3-10-2CDH production cement job.
2	Journey management	6/9/2017	08:15					BJ crew conduct STEACS briefing on driving to location, discuss route and hazards associated with driving to location.
3	Depart facility	6/9/2017	08:30					BJ crew depart facility for Petroshare location.
4	Arrive on location	6/9/2017	10:30					BJ crew arrive on location.
5	Assess location	6/9/2017	10:40					BJ crew assess location to identify hazards of spotting in and rigging up equipment.
6	Safety meeting	6/9/2017	10:50					BJ crew discuss spotting in and rigging up equipment and hazards associated.
7	Rig up	6/9/2017	11:00					BJ crew spot in equipment and begin rig up of all equipment and fittings.
8	Waiting	6/9/2017	00:00					Wait on rig to land casing for hrs due to tight spots in wellbore.
9	Other	6/10/2017	07:00					5.5", 20 lb, HCP-110 casing set at 13,125' on bottom at hrs, circulating at bbl/min, with psi and units of gas.
10	Safety meeting	6/10/2017	08:30					BJ crew, customer representative and rig personnel conduct STEACS briefing discussing job procedure and hazards associated with job such as emergency contacts, muster areas, nearest hospital/clinic, PPE, SSE's, trapped pressure, spills, leaks, overhead loads, hoisting operations, pinch points, fire ext, first aid etc;
11	Start job	6/10/2017	09:01					BJ crew begins cement job.
12	Fill lines	6/10/2017	09:02	8.33	2	2	50	Fill lines with 2 bbls water ahead. Bottom plug pre-loaded in plug container and pumped away once circulation established.
13	Shutdown	6/10/2017	09:04					Shutdown to pressure test iron.
14	Pressure test	6/10/2017	09:05					Pressure test lines to 5,000 psi.
15	Release pressure	6/10/2017	09:09					Bleed back pressure to pump truck.
16	Pump spacer	6/10/2017	09:11	11	5	40	280	Pump 40 bbls of 11 ppg CD spacer at 5 bbl/min.



17	Pump lead	6/10/2017	09:24	12.5	5	70	245	Mix and pump 1014 sks of P100-X2 lead cement at 12.5 ppg, 2.07 yld, 11.81 gal/sk (total of 374 bbls cement slurry) at 5 bbl/min.
18	Shutdown	6/10/2017	09:34					Shutdown due to line on bulk silo packing off.
19	Pump lead	6/10/2017	09:44	12.5	5	150	238	Resume pumping remaining 224 bbls lead cement
20	Increase rate	6/10/2017	10:06	12.5	6	374	380	Increase rate to 6 bbl/min per customer request.
21	Pump tail	6/10/2017	10:37	13.5	5	246	406	Mix and pump 940 sks of P50-X1 tail cement at 13.5 ppg, 1.47 yld, 7.43 gal/sk (total of 246 bbls cement slurry) at 6 bbl/min.
22	Shutdown	6/10/2017	11:19					Shutdown to line out and wash lines.
23	Wash lines	6/10/2017	11:20					Wash lines to 3-sided tank.
24	Drop top plug	6/10/2017	11:25					Drop top plug.
25	Pump displacement	6/10/2017	11:27	8.33	8	264	850	Pump 264 bbls of fresh water displacement at 8 bbl/min.
26	Shutdown	6/10/2017	12:00					Shutdown so rig crew can line out return line hose to another 3 sided tank for returns.
27	Pump displacement	6/10/2017	12:02	8.33	8	270	2558	Pump remaining 15 bbls of displacement at 8 bbl/min before slowing rate.
28	Slow rate	6/10/2017	12:08	8.33	3	285	2335	Slow rate last 15 bbls of displacement to 3 bbl/min.
29	Land plug	6/10/2017	12:12				2368	Land plug with 285 bbls of displacement away with final circulating pressure of 2368 psi.
30	Check floats	6/10/2017	12:16				2889	Floats held with 3 bbls back to truck.
31	End job	6/10/2017	12:17					BJ crew ends production cement job. Full returns throughout. Received 74 bbls cement to surface.
32	Safety meeting	6/10/2017	12:20					BJ crew conducts STEACS briefing on rig down.
33	Rig down	6/10/2017	12:30					BJ crew rigs down all equipment and fittings.
34	Journey management	6/10/2017	14:00					BJ crew conduct STEACS briefing on driving to facility, discuss route and hazards associated with driving to facility.
35	Depart location	6/10/2017	14:30					BJ crew depart location for facility.



### 3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	71 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	294 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	140 mg/L	0-100 mg/L
Sulfates	>400 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0.15 mg/L	0-300 mg/L

### 4 Pump Diagrams

Customer: Petroshare  
Well Number: 3-10-2CDH  
Lease Info: Shook



Print Date/Time

6/10/2017 1:12:32 PM

