

TURNKEY TPS

COLEVILLE, SK

LSD: 9-9-32-24 w3

Longhorn arrived at the lease at 7:45 am to find all crews on site and rigging in. After holding the pre-run safety meeting, rig in was completed and the Sandworm was run into the well. Due to unexpected issues with the nitrogen unit's hydraulic line, the job was shut down and the run delayed until the next day when CNS returned with a new N2 Unit to complete the job.

After rig in, the coil was advanced to 888m where it tagged oil and got back excellent returns right away. We first tagged sand at 918m with the first set of perforations located at 920-924m. The tool worked through the first bridge quite easily. Circulation consisted of pressure of approximately 10,000 kpa (1600psi). We continued to work the tool, advancing steadily with approximately 25% sand returns. The Sandworm cleaned continuously past the second set of perforations, and then suddenly stopped at 1074m. The coil was repeatedly advanced, but no movement was gained. While on the obstruction, circulation was maintained without any problem while landed on the bridge, which lead us to believe that it was a casing deviation and not sand causing issues to advance the coil. The longer we circulated, the lower the sand cuts, and everyone was pleased with the way the well cleaned up.

Brad Barton made the call to pull up and stated that they had not had any equipment past that depth before. TD of the well was located at 1090m. We got back returns of 4 cubic metres/hour for two hours, for a total of 8 cubic metres of sand returned to surface. That is the equivalent of approximately 155m of cased hole cleaned in less than 2 hours of working the Sandworm tool. Steve had a better understanding of the Sandworm after he had seen the actual tool and how it functioned. His comment was, "this tool is awesome; give me some time and I will find a use for it that you don't even know about yet."

Brad Barton from Turnkey offered to make himself available as a reference on the tool performance and to comment on the success of the run, as required.



Run Summary

Tool:	2 7/8" Sandworm
Target:	Coil Tubing Clean-out
Casing Size:	177.8 mm / 7"
Coil Tubing Size:	50.8mm / 2"
Well TD:	1090m / 3576 ft

Total Run Time:	4 Hours
Sand Recovered:	8 m ³ / 282 ft ³

Engineering:	Benchmark Engineering Inc.
Consultant:	Steve Sharpe

Coil Service:	Titanium Coil Technology
Foamer Service:	Mike's Oilfield
Service Rig:	Ringer Oilwell Servicing #46
Nitrogen Unit:	Canadian Nitrogen Services





LONGHORN CASING TOOLS

Mike's Oilfield Services Ltd.
6210 - 50th Avenue, Lloydminster, AB T9V 2C9

Phone: (780) 875-1551
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STABLE FOAM CLEANOUT DATA

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Customer: TPS Location: 9-9-32-24w3 DATE: August 12, 2011

COMMENTS	TIME-IN	TIME-OUT	PRESSURE (kPa)	% SOAP	L.P.M.	% OIL	% SAND	IN TANK m3/HR
CREW TRAVEL TO LOC.	6:00 AM	7:30 AM						
WAIT ON N2 TO RIG IN	7:30 AM	8:45 AM						
HOLD SAFETY MEETING	8:45 AM	9:10 AM						
PRESS. TEST FOAM LINE	9:10 AM	9:20 AM	21000					
N2 PRESS. TEST LINE	9:20 AM	9:30 AM	21000					
START FOAMING THROUGH COIL	9:30 AM		8500	2.00 %				
COIL STARTS IN HOLE	9:35 AM		8500	2.00 %				
COIL DEPTH 20m	9:45 AM		8500	2.00 %				
RETURNS TO SURFACE 400m	10:00 AM		8500	2.00 %				1.0
SAMPLE 600m	10:15 AM		8500	2.00 %	100	80.00 %	0.00 %	9m3
SAMPLE 920m	10:30 AM		8500	2.00 %	100	25.00 %	0.50 %	10.0
SAMPLE 970m	10:45 AM		8500	2.00 %	100	30.00 %	1.00 %	
SAMPLE 999m	11:00 AM		8500	2.00 %	100	35.00 %	20.00 %	6m3
SAMPLE 1000m	11:15 AM		8500	2.00 %	100	30.00 %	25.00 %	
SAMPLE 1074m	11:30 AM		8500	2.00 %	100	40.00 %	13.00 %	16.0
SAMPLE 1060m	12:00 PM		8500	2.00 %	100	40.00 %	10.00 %	
SAMPLE 1074m	12:30 PM		8500	2.00 %	100	40.00 %	8.00 %	4m3
SAMPLE POOH 600m	12:45 PM		8500	2.00 %	100	40.00 %	8.00 %	22.0
SAMPLE 200m	1:00 PM		8500	2.00 %	100	40.00 %	8.00 %	
COIL AT SURFACE 0m	1:30 PM		8500	2.00 %				
SHUT DOWN FOAM	1:30 PM							
FLOG H2O THROUGH COIL	1:30 PM	1:40 PM	7000					
BLOW COIL DRY WITH N2	1:40 PM	1:50 PM	6000					
SHUT DOWN RIG OUT	1:50 PM	2:00 PM						
WASH OUT RETURN TANK	2:00 PM	2:30 PM						
TRAVEL TO BASE	2:30 PM	6:00 PM						



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Customer's Name: TPS **STABLE FOAM WELL CLEAN OUT REPORT**

Address: _____ Page No: _____

DATE: 08/11/2011

Service Order No: 885 - 020

Contractor: TPS Field: COLEVILLE Prov: SASK.

Well Name: _____

Location: LSD 9 SEC 9 TWP 32 RGE 24 W 3

WELL DATA

New Well ☐ Old Well ☐ Other ☐ Fluid Type: _____

Perforations: From: 920 m to: 924 m Zone Name: _____

Perforations: From: 1050 m to: 1064 m Zone Name: _____

Perforations: From: _____ m to: _____ m Zone Name: _____

Total Depth: _____ m Tubing Size: 2 INCH Viscosity: _____ mPa.s Density: _____ kg/m³

Plug Back Depth: 1098 m Casing Size: 7 INCH

OTHER MATERIAL AND/OR SERVICES

Foam Tank ☐ 1 DAYS Additional Equipment Operator ☐ 0 Hours Solution Meter:

Lao Air Booster ☐ 0 Days Defoamer 40 Litres Closing: 16.00 m³

Other ☐ Foaming Agent 305 Litres Opening: 0.00 m³

Extreme Foaming Agent 0 Litres Used: 16.00 m³

VAC REPORT FORMATION FLUID REC COMMENTS

Oil 14.0 m³ 14.0 m³

Water 7.0 m³ -9.0 m³

Sand 1.0 m³ 1.0 m³

Mud 0.0 m³ 0.0 m³

Mike's Oilfield Service Representative: TROY THIESSEN Customer Representative: STEVE SHARP

