



Pump Change Summary

Thorsby 100/16-11-051-02W5/00 (S14-03) • 100/16-11-051-02W5/00 • #0502001



WELL DATA				
NAME	LICENSE #	COST CENTRE	UWI	LOCATION
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada
COMPLETIONS DETAIL				
NAME	COMPLETIONS TYPE	START DATE	FINISH DATE	
Pump Change	Open Hole	2023-03-15	2023-03-17	
OBJECTIVE				
Sparky: Repair parted rod string and replace PCPump.				
JOB SUMMARY				
Sparky: Moved in service rig. Pressure tested tubing to 7 MPa, slight leak off noted. Removed drive head and secured on stand. Pulled continuous rod string, looked good. Failure mechanism was a broken rotor. Removed wellhead and installed BOP's. Moved in slick line rig and cut hole in tubing. Flushed tubing and casing with hot produced water. Pulled and inspected production tubing string. 0.2 m / 1.5 L of bottom settlement in bull plug of degasser chamber. Ran approved BHA, new PCPump and replacement tubing. Ran new PCPump rotor and conventional rod string. Installed new PCPumping unit drive head and pressure tested tubing to 7 MPa. Put well back online and released all services.				

DRILLING DATA									
DRILLING GENERAL									
EVENT	DRILLING START	SPUD DATE	RELEASE DATE	AFE NUMBER	AFE \$				
Pump Change	2022-10-19 00:00	2022-01-19 16:00	2022-01-30 23:59	22WO0041	\$0.00				
SURFACE HOLE									
DLS POINT	COORDINATES		LATITUDE	LONGITUDE					
14-03-051-02W5	65.00 m SOUTH by 726.40 m EAST		53.38085400	-114.21234200					
WELLBORES									
Original Hole									
START	END								
2022-01-19	2022-01-30								
BOTTOM POINT	COORDINATES		LATITUDE	LONGITUDE					
100/16-11-051-02W5/00	0.00 m by 0.00 m		53.38085400	-114.21234200					
UWI									
100/16-11-051-02W5/00									
KICKOFF	HEEL	PROJECTED	MEASURED	TVD	LOGGER				
1,007.00 m	1,615.00 m	4,202.00 m	4,088.00 m	611.56 m	0.00 m				
DRILLING ELEVATIONS									
SURVEYED	CUT / FILL	GROUND	KB > GROUND	KB	CF > GROUND	CF			
742.30 m	-0.29 m	742.01 m	5.50 m	747.51 m	0.00 m	742.01 m			
BRIDGE PLUG									
MANUFACTURER	MODEL		SET DEPTH		BACK DEPTH				
			-		-				
SURFACE									
LANDED AT 271.00 m									
#	CODE	DESCRIPTION	COND	OD	DRIFT	WEIGHT	GRADE	LENGTH	TOP
				(mm)	(mm)	(kg/m)		(m)	(mKB)
1	S02	Float Shoe	New	244.5	0.0	0.00		0.49	270.51
1	S03	Casing Joint	New	244.5	226.6	53.67	J55	11.33	259.18
1	S01	Float Collar	New	244.5	0.0	0.00		0.37	258.81
23	S03	Casing Joint	New	244.5	226.6	53.67	J55	259.69	-0.88
CEMENT									
AMOUNT	TYPE	DESCRIPTION	VOLUME		YIELD	% EXCESS	EST TOP	RETURNS	DENSITY
(t)			(m³)		(m³/t)	(%)	(m)	(m³)	(kg/m³)
15.00	OTHER	TSC 1700-S Bulk Cement	14.09		0.9390	80.00	0.00	4.50	1,700
0.4% TLA, 0.4% AFA-7, 2% Calcium Chloride.									
CEMENT DATE	HOLE DEPTH		HOLE SIZE	STICK UP	LANDED AT		FLOAT COLLAR		
2022-01-20	271.00 m		311.00 mm	0.88 m	271.00 m		259.18 m		
INTERMEDIATE							LANDED AT 1,615.00 m		
#	CODE	DESCRIPTION	COND	OD	DRIFT	WEIGHT	GRADE	LENGTH	TOP
				(mm)	(mm)	(kg/m)		(m)	(mKB)
1	I01	Float Shoe	New	0.0	0.0	0.00		0.50	1,614.50
1	I03	Casing Joint	New	177.8	161.7	34.23	P-110	13.84	1,600.66
1	I02	Float Collar	New	0.0	0.0	0.00		0.41	1,600.25
130	I03	Casing Joint	New	177.8	161.7	34.23	P-110	1,601.03	-0.78
CEMENT									
AMOUNT	TYPE	DESCRIPTION	VOLUME		YIELD	% EXCESS	EST TOP	RETURNS	DENSITY
(t)			(m³)		(m³/t)	(%)	(m)	(m³)	(kg/m³)
1.42	SCAVENG ER		3.00		2.1200	0.00	0.00	3.00	1,300
2% OGC-60 + 4% AFA-7									
14.57	OTHER	Titanium 1400-S	23.20		1.5920	90.00	0.00	9.00	1,400



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2% OGC-60 + 4% AFA-7									
16.00 OTHER T.A.C.-S				17.04	1.0650	90.00	990.00	0.00	1,600
0.2% AFA-7 + 0.4% TWR-4 + 0.5% Gel + 0.2% TDH-2 + 0.2% CFR-12									
CEMENT DATE 2022-01-24		HOLE DEPTH 1,615.00 m		HOLE SIZE 222.00 mm		STICK UP 0.78 m		LANDED AT 1,615.00 m	
								FLOAT COLLAR 1,600.66 m	
PRODUCTION									
LANDED AT 4,078.00 m									
#	CODE	DESCRIPTION	COND	OD ( mm )	DRIFT ( mm )	WEIGHT ( kg/m )	GRADE	LENGTH ( m )	TOP ( mKB )
1	P01	Guide Shoe - Re entry guide		0.0	0.0	0.00		0.27	4,077.73
1	P02	Pup Joint		114.3	0.0	20.09		1.85	4,075.88
1	P03	Float Collar		114.3	0.0	0.00		0.30	4,075.58
1	P02	Pup Joint		114.3	0.0	20.09		1.86	4,073.72
1	P12	Secondary Float Collar		114.3	0.0	0.00		0.30	4,073.42
1	P02	Pup Joint		114.3	0.0	20.09		1.86	4,071.56
1	P04	Landing Collar - Wiper Dart Landing collar		114.3	0.0	0.00		0.48	4,071.08
1	P02	Pup Joint		114.3	0.0	20.09		1.86	4,069.22
1	P05	Casing Joint	New	114.3	99.6	20.09	P-110	13.38	4,055.84
1	P06	Toe Port - Interra (41.3mpa)		114.3	0.0	20.09	P110	0.55	4,055.29
1	P05	Casing Joint	New	114.3	99.6	20.09	P-110	13.17	4,042.12
1	P06	Toe Port - Interra (41.3mpa)		114.3	0.0	20.09	P110	0.55	4,041.57
1	P05	Casing Joint	New	114.3	99.6	20.09	P-110	13.38	4,028.19
1	P02	Pup Joint		114.3	0.0	20.09		6.30	4,021.89
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	4,020.78
1	P02	Pup Joint		114.3	0.0	20.09		6.72	4,014.06
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.54	3,987.52
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,981.22
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,980.11
1	P02	Pup Joint		114.3	0.0	20.09		6.75	3,973.36
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	25.52	3,947.84
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,941.54
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,940.43
1	P02	Pup Joint		114.3	0.0	20.09		6.68	3,933.75
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.76	3,906.99
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,900.69
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,899.58
1	P02	Pup Joint		114.3	0.0	20.09		6.55	3,893.03
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.59	3,866.44
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,860.14
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,859.03
1	P02	Pup Joint		114.3	0.0	20.09		6.73	3,852.30
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.60	3,825.70
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,819.40
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,818.29
1	P02	Pup Joint		114.3	0.0	20.09		6.65	3,811.64
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.75	3,784.89
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,778.59
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,777.48
1	P02	Pup Joint		114.3	0.0	20.09		6.54	3,770.94
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.76	3,744.18
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,737.88
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,736.77
1	P02	Pup Joint		114.3	0.0	20.09		6.74	3,730.03
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.44	3,703.59
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,697.29
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,696.18
1	P02	Pup Joint		114.3	0.0	20.09		6.58	3,689.60
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.38	3,663.22
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,656.92
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,655.81
1	P02	Pup Joint		114.3	0.0	20.09		6.69	3,649.12
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.51	3,622.61
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,616.31
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,615.20
1	P02	Pup Joint		114.3	0.0	20.09		6.81	3,608.39
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.59	3,581.80
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,575.50
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,574.39
1	P02	Pup Joint		114.3	0.0	20.09		6.63	3,567.76
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.44	3,541.32
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,535.02
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,533.91
1	P02	Pup Joint		114.3	0.0	20.09		6.57	3,527.34
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.76	3,500.58
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,494.28
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,493.17
1	P02	Pup Joint		114.3	0.0	20.09		6.65	3,486.52
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.59	3,459.93
1	P02	Pup Joint		114.3	0.0	20.09		6.30	3,453.63
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	P-110	1.11	3,452.52
1	P02	Pup Joint		114.3	0.0	20.09		6.50	3,446.02
2	P05	Casing Joint	New	114.3	99.6	20.09	P-110	26.61	3,419.41

1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,413.11
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,412.00
1	P02	Pup Joint		114.3	0.0	20.09	6.75	3,405.25
2	P05	Casing Joint	New	114.3	99.6	20.09	26.45	3,378.80
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,372.50
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,371.39
1	P02	Pup Joint		114.3	0.0	20.09	6.75	3,364.64
2	P05	Casing Joint	New	114.3	99.6	20.09	26.30	3,338.34
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,332.04
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,330.93
1	P02	Pup Joint		114.3	0.0	20.09	6.61	3,324.32
2	P05	Casing Joint	New	114.3	99.6	20.09	26.74	3,297.58
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,291.28
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,290.17
1	P02	Pup Joint		114.3	0.0	20.09	6.51	3,283.66
2	P05	Casing Joint	New	114.3	99.6	20.09	26.49	3,257.17
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,250.87
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,249.76
1	P02	Pup Joint		114.3	0.0	20.09	6.75	3,243.01
2	P05	Casing Joint	New	114.3	99.6	20.09	26.44	3,216.57
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,210.27
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,209.16
1	P02	Pup Joint		114.3	0.0	20.09	6.62	3,202.54
2	P05	Casing Joint	New	114.3	99.6	20.09	26.60	3,175.94
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,169.64
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,168.53
1	P02	Pup Joint		114.3	0.0	20.09	6.59	3,161.94
2	P05	Casing Joint	New	114.3	99.6	20.09	26.76	3,135.18
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,128.88
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,127.77
1	P02	Pup Joint		114.3	0.0	20.09	6.57	3,121.20
2	P05	Casing Joint	New	114.3	99.6	20.09	26.60	3,094.60
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,088.30
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,087.19
1	P02	Pup Joint		114.3	0.0	20.09	6.77	3,080.42
2	P05	Casing Joint	New	114.3	99.6	20.09	26.24	3,054.18
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,047.88
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,046.77
1	P02	Pup Joint		114.3	0.0	20.09	6.66	3,040.11
2	P05	Casing Joint	New	114.3	99.6	20.09	26.53	3,013.58
1	P02	Pup Joint		114.3	0.0	20.09	6.30	3,007.28
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	3,006.17
1	P02	Pup Joint		114.3	0.0	20.09	6.67	2,999.50
2	P05	Casing Joint	New	114.3	99.6	20.09	26.76	2,972.74
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,966.44
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,965.33
1	P02	Pup Joint		114.3	0.0	20.09	6.62	2,958.71
2	P05	Casing Joint	New	114.3	99.6	20.09	26.70	2,932.01
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,925.71
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,924.60
1	P02	Pup Joint		114.3	0.0	20.09	6.75	2,917.85
2	P05	Casing Joint	New	114.3	99.6	20.09	26.76	2,891.09
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,884.79
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,883.68
1	P02	Pup Joint		114.3	0.0	20.09	6.64	2,877.04
2	P05	Casing Joint	New	114.3	99.6	20.09	26.59	2,850.45
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,844.15
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,843.04
1	P02	Pup Joint		114.3	0.0	20.09	6.69	2,836.35
2	P05	Casing Joint	New	114.3	99.6	20.09	26.18	2,810.17
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,803.87
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,802.76
1	P02	Pup Joint		114.3	0.0	20.09	6.52	2,796.24
2	P05	Casing Joint	New	114.3	99.6	20.09	26.60	2,769.64
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,763.34
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,762.23
1	P02	Pup Joint		114.3	0.0	20.09	6.59	2,755.64
2	P05	Casing Joint	New	114.3	99.6	20.09	26.50	2,729.14
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,722.84
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,721.73
1	P02	Pup Joint		114.3	0.0	20.09	6.63	2,715.10
2	P05	Casing Joint	New	114.3	99.6	20.09	26.16	2,688.94
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,682.64
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,681.53
1	P02	Pup Joint		114.3	0.0	20.09	6.73	2,674.80
2	P05	Casing Joint	New	114.3	99.6	20.09	26.59	2,648.21
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,641.91
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,640.80
1	P02	Pup Joint		114.3	0.0	20.09	6.71	2,634.09
2	P05	Casing Joint	New	114.3	99.6	20.09	26.46	2,607.63
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,601.33
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,600.22
1	P02	Pup Joint		114.3	0.0	20.09	6.59	2,593.63
2	P05	Casing Joint	New	114.3	99.6	20.09	26.44	2,567.19

1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,560.89
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,559.78
1	P02	Pup Joint		114.3	0.0	20.09	6.65	2,553.13
2	P05	Casing Joint	New	114.3	99.6	20.09	25.73	2,527.40
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,521.10
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,519.99
1	P02	Pup Joint		114.3	0.0	20.09	6.65	2,513.34
2	P05	Casing Joint	New	114.3	99.6	20.09	26.75	2,486.59
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,480.29
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,479.18
1	P02	Pup Joint		114.3	0.0	20.09	6.43	2,472.75
2	P05	Casing Joint	New	114.3	99.6	20.09	26.41	2,446.34
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,440.04
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,438.93
1	P02	Pup Joint		114.3	0.0	20.09	6.74	2,432.19
2	P05	Casing Joint	New	114.3	99.6	20.09	26.43	2,405.76
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,399.46
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,398.35
1	P02	Pup Joint		114.3	0.0	20.09	6.68	2,391.67
2	P05	Casing Joint	New	114.3	99.6	20.09	26.74	2,364.93
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,358.63
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,357.52
1	P02	Pup Joint		114.3	0.0	20.09	6.67	2,350.85
2	P05	Casing Joint	New	114.3	99.6	20.09	26.74	2,324.11
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,317.81
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,316.70
1	P02	Pup Joint		114.3	0.0	20.09	6.67	2,310.03
2	P05	Casing Joint	New	114.3	99.6	20.09	26.43	2,283.60
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,277.30
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,276.19
1	P02	Pup Joint		114.3	0.0	20.09	6.63	2,269.56
2	P05	Casing Joint	New	114.3	99.6	20.09	26.74	2,242.82
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,236.52
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,235.41
1	P02	Pup Joint		114.3	0.0	20.09	6.58	2,228.83
2	P05	Casing Joint	New	114.3	99.6	20.09	26.73	2,202.10
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,195.80
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,194.69
1	P02	Pup Joint		114.3	0.0	20.09	6.53	2,188.16
2	P05	Casing Joint	New	114.3	99.6	20.09	26.75	2,161.41
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,155.11
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,154.00
1	P02	Pup Joint		114.3	0.0	20.09	6.68	2,147.32
2	P05	Casing Joint	New	114.3	99.6	20.09	26.53	2,120.79
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,114.49
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,113.38
1	P02	Pup Joint		114.3	0.0	20.09	6.68	2,106.70
2	P05	Casing Joint	New	114.3	99.6	20.09	26.50	2,080.20
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,073.90
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,072.79
1	P02	Pup Joint		114.3	0.0	20.09	6.53	2,066.26
2	P05	Casing Joint	New	114.3	99.6	20.09	26.43	2,039.83
1	P02	Pup Joint		114.3	0.0	20.09	6.30	2,033.53
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	2,032.42
1	P02	Pup Joint		114.3	0.0	20.09	6.35	2,026.07
2	P05	Casing Joint	New	114.3	99.6	20.09	26.60	1,999.47
1	P02	Pup Joint		114.3	0.0	20.09	6.30	1,993.17
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	1,992.06
1	P02	Pup Joint		114.3	0.0	20.09	6.60	1,985.46
2	P05	Casing Joint	New	114.3	99.6	20.09	26.74	1,958.72
1	P02	Pup Joint		114.3	0.0	20.09	6.30	1,952.42
1	P07	Frac Sleeve - MultiCycle	New	114.3	0.0	20.09	1.11	1,951.31
1	P02	Pup Joint		114.3	0.0	20.09	6.76	1,944.55
28	P05	Casing Joint	New	114.3	99.6	20.09	370.55	1,574.00
1	P02	Pup Joint		114.3	0.0	20.09	1.85	1,572.15
1	P08	Liner Hanger Assembly - Primaset		114.3	0.0	0.00	1.93	1,570.22
1	P09	Receptacle - Polish bore receptical		0.0	0.0	0.00	3.64	1,566.58
1	P10	Other - Setting Tool		0.0	0.0	0.00	2.55	1,564.03

## CEMENT

AMOUNT (t)	TYPE	DESCRIPTION	VOLUME (m <sup>3</sup> )	YIELD (m <sup>3</sup> /t)	% EXCESS (%)	EST TOP (m)	RETURNS (m <sup>3</sup> )	DENSITY (kg/m <sup>3</sup> )
1.88	SCAVENG ER		3.00	1.5950	0.00	0.00	3.00	1,400
0.2%	AFA-7 + 0.4%	TWR-4 + 0.5% Gel + 0.2% TDH-2 + 0.2% CFR-12						
38.12	OTHER	T.A.C-S	40.60	1.0650	60.00	0.00	9.00	1,600
0.2%	AFA-7 + 0.4%	TWR-4 + 0.5% Gel + 0.2% TDH-2 + 0.2% CFR-12						
CEMENT DATE		HOLE DEPTH	HOLE SIZE	STICK UP		LANDED AT		FLOAT COLLAR
2022-01-29		4,076.00 m	159.00 mm	-1,564.03 m		4,078.00 m		4,075.88 m

TIE BACK // RUN 2022-01-30

LANDED AT 1,566.55 m

#	CODE	DESCRIPTION	COND	OD (mm)	DRIFT (mm)	WEIGHT (kg/m)	GRADE	LENGTH (m)	TOP (mKB)
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Pump Change Summary

Thorsby 100/16-11-051-02W5/00 (S14-03) • 100/16-11-051-02W5/00 • #0502001



1	T02	Receptacle	0.0	0.0	0.00		3.64	1,562.91
1	T03	Other - LATCH	0.0	0.0	0.00		1.30	1,561.61
115	T01	Casing Joint	114.3	96.4	20.09	P110	1,539.05	22.56
3	T04	Pup Joint	114.3	96.4	20.09	P-110	8.00	14.56
1	T01	Casing Joint	114.3	96.4	20.09	P110	13.39	1.17
3	T04	Pup Joint	114.3	96.4	20.09	P-110	1.02	0.15
1	T05	Other - Tubing hanger	0.0	0.0	0.00		0.15	0.00

CASING BOWL			
TYPE	MAKE	SERIAL #	CASING SIZE
WORK PRESSURE	WEIGHT LANDED	NOMINAL SIZE	SLIP & SEAL ASSM
		-	

PUMP CHANGE DETAILS						
COSTS					BOTTOM HOLE	
FORECAST	AFE NUMBER 23OP0012	AFE \$ \$0.00	ITEMIZED TOTAL \$74,855.64	COMPLETIONS TOTAL \$74,855.64	ESTIMATED TEMP -	ESTIMATED PRESS -
ELEVATIONS					ESTIMATED H2S -	ESTIMATED CO2 -
GROUND 742.01 m	KB > GROUND 5.50 m	KB 747.51 m	CF > GROUND 0.00 m	CF 742.01 m		
TH > GROUND 0.60 m	KB > TH 4.90 m	DH > GROUND 0.00 m	KB > DH 5.50 m			
PERSONNEL						
TITLE	NAME	CONTACT				
Operations Manager	Kevin Saizew	403-999-8087				
Consultant	Simon Kaiser	403-348-1053				
Rig Manager - Day Shift	Brian Payne	780-898-1331				
COMPLETIONS RIGS						
CONTRACTOR		#	START		RELEASE	
CWC Energy Services Corp		RTS 162	2023-03-15			
FLUIDS						
FLUID		TANK	TO WELL	FROM WELL	IN WELL	
LOAD FLUID			0.00 m³		0.00 m³	
Produced water		0.00 m³	28.00 m³	0.00 m³	28.00 m³	
TOTAL			28.00 m³	0.00 m³		
RECENT DAILY OPERATIONS - 2023-03-17						
DAILY STATUS						
Sparky: Ran new PCPump rotor and conventional rod string. Installed new PCPumping unit drive head and stabilizing brackets. Put well back online and released all services.						
24 HOUR SUMMARY						
Removed class II tubing BOP's and installed wellhead and flowline piping. Ran new PCPump rotor and continues rod string. Installed new PCPumping unit drive head and stabilizing brackets. Put well back online and released all services. Moved equipment off lease the following morning on the frost.						
NEXT 24 HOURS						
Final report, well is back online and is turned back over to production operations – Lantz Mayr - 780-237-9475.						

NAME	LICENSE #	UWI	LOCATION
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada

**EMERGENCY CONTACTS**  
***MUST be posted for ALL workers to access***

GPS COORDINATES	
LATITUDE	LONGITUDE
53.38085400	-114.21234200

CONTACTS			
PRIMARY		SECONDARY	
NAME	CONTACT	NAME	CONTACT
Kevin Saizew	405-999-8087	Simon Kaiser	403-348-1053
TITLE	NAME	CONTACT	
Operations Superintendent	Kevin Saizew	405-999-8087	
Foreman	Lantz Mayr	780-237-9475	

ON SITE FIRST AID	
NAME / CONTACT	LEVEL OF TRAINING
Simon Kaiser	Standard first aid

GOVERNMENT AGENCIES	
AGENCY	NAME / CONTACT
AER	AER / 780-621-4812

EMERGENCY CONTACTS			
PRIMARY EMERGENCY RESOURCE			
CONTACT	CLOSEST LOCATION		RESPONSE TIME
911	Devon Alberta		30 minutes
TITLE	CONTACT	CLOSEST LOCATION	RESPONSE TIME
Fire	911	Devon Alberta	30 minutes
Police	911	Devon Alberta	30 minutes
EMS	911	Devon Alberta	30 minutes
Hospital	911	Devon Alberta	30 minutes
Spill			

MUSTER	
ON SITE	OFF SITE
Lease entrance	Access road and Range Road 23

NOTES / DIRECTIONS
From Devon Alberta travel North/West on Highway 60 to Township Road 511, then turn left and travel West to Range Road 273, then turn right and travel North to Township Road 512, then turn left and travel West to Highway 771, then turn left and travel South to Range Road 23, then turn left and travel South for 1.2 km, then turn left and travel East 0.6 km into location.



Thorsby 100/16-11-051-02W5/00 (S14-03) - Pump Change Daily Reports  
Thorsby 100/16-11-051-02W5/00 (S14-03) • 100/16-11-051-02W5/00 • #0502001



WELL DATA					
NAME	LICENSE #	LOCATION	EVENT	AFE NUMBER	AFE AMOUNT
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	100/16-11-051-02W5/00	Pump Change	23OP0012	\$0.00
COMPLETION TYPE	START DATE	END DATE	OBJECTIVE		
Open Hole	2023-03-15	2023-03-17	Sparky: Repair parted rod string and replace PCPump.		
NOTE: The DAILY COST column represents all costs including non-itemized, TOTAL DAILY represents only itemized costs for the day, and TOTAL is the running total of itemized costs only.					
COMPLETIONS DAILY REPORTS					
DATE	DAILY COST	TOTAL DAILY	TOTAL	SUMMARY	
2023-03-15	\$13,642.47	\$13,642.47	\$13,642.47	Moved in service rig. Tested SCV, 45 bubbles/minute. Pressure tested tubing to 7 MPa, slight leak off was noted down to 2 MPa in 10 minutes. Removed Weatherford, MGX GEN3_0, PCPumping unit drive head and secured on stand. Pulled, visually inspect, spooled and gauge continuous rod string with wrench while pulling, string looked good Failure mechanism was a broken rotor 0.2 m down from top. Removed wellhead and installed and pressure tested tubing BOP's.	
2023-03-16	\$45,112.70	\$45,112.70	\$58,755.17	Moved in slick line rig and cut hole in tubing at 1282 mKB, tubing went on vacuum. Flushed tubing with 6 m³ and casing with 10 m³ of hot produced water. Pulled and inspected production tubing string while trickling hot water down casing, 117 yellow, 14 blue, 5 green and 2 red band, wall lose and rod wear was found. Disassembled and cleaned BHA and reported finding to Calgary, 0.2 m / 1.5 L of bottom settlement, asphaltenes and sand in bottom bull plug of degasser chamber. Ran approved BHA, new PCPump, replacement tubing and landed end at 1394.67 mKB / 1321.24 mTVD, 63° inclination.	
2023-03-17	\$16,100.47	\$16,100.47	\$74,855.64	Removed class II tubing BOP's and installed wellhead and flowline piping. Ran new PCPump rotor and continues rod string. Installed new PCPumping unit drive head and stabilizing brackets. Put well back online and released all services. Moved equipment off lease the following morning on the frost.	

WELL DATA									
LICENSE #	UWI		EVENT		AFE NUMBER		AFE \$		
0502001	100/16-11-051-02W5/00		Pump Change		230P0012		\$0.00		
GROUND ELE	KB > GROUND	KB ELE	CF > GROUND	TH > GROUND	KB > TH	DH > GROUND	KB > DH		
742.01 m	5.50 m	747.51 m	0.00 m	0.60 m	4.90 m	0.00 m	5.50 m		
REPORT DETAILS									
REPORT DATE	PERCENT COMPLETE	RIG TIME	TOTAL RIG TIME	MAN HOURS	TOTAL MAN HOURS				
2023-03-17	-	7.50 hr	26.00 hr	90.00 hr	280.00 hr				
TOTAL TIME	NON-PRODUCTIVE	FLARE VOLUME	TOTAL DAILY FLARE	CASING PRESSURE	TUBING PRESSURE				
8.00 hr	0.00 hr	-	0.00 e³m³	0.00 kPa	0.00 kPa				
COSTS					DAILY RENTALS				
TOTAL DAILY	COMPL. TOTAL	TOTAL CUMULATIVE	COMPL. CUMULATIVE	TOTAL DAILY	COMPL. TOTAL				
\$16,100.47	\$16,100.47	\$74,855.64	\$74,855.64	\$0.00	\$0.00				
DAILY OPERATIONS					PERSONNEL				
<div>DAILY STATUS</div> <div>Sparky: Ran new PCPump rotor and conventional rod string. Installed new PCPumping unit drive head and stabilizing brackets. Put well back online and released all services.</div> <div>24 HOUR SUMMARY</div> <div>Removed class II tubing BOP's and installed wellhead and flowline piping. Ran new PCPump rotor and continues rod string. Installed new PCPumping unit drive head and stabilizing brackets. Put well back online and released all services. Moved equipment off lease the following morning on the frost.</div> <div>NEXT 24 HOURS</div> <div>Final report, well is back online and is turned back over to production operations – Lantz Mayr - 780-237-9475.</div>					OPERATIONS MANAGER - <span>On Site</span>				
					Kevin Saizew 403-999-8087				
					CONSULTANT - <span>On Site</span>				
					Simon Kaiser 403-348-1053				
					RIG MANAGER - DAY SHIFT - <span>On Site</span>				
					Brian Payne 780-898-1331				
					COMPLETION RIGS				
					CONTRACTOR	#	START	RELEASE	
					CWC Energy Services Corp RTS	162	2023-03-15		
					WEATHER				
GENERAL									
Sunny									
ROAD CONDITION									
Snow covered and firm.									
TIME			TEMP						
09:45			-3°C						
TIME LOG									
FROM	TO	DUR	NPT CODE	DETAILS					
07:00	07:30	0.5 h		Conducted LEL sweep of location, none found. Serviced, started and warmed up equipment. Read and recorded SIP's. Held safety and operational meeting. Issued and reviewed ERP, Directive 33, Blackspur Oil Corp. safe work permit and hazard assessment. Discussed the hazards of working over a live well and reviewed applicable SOP's. Discussed taking wellhead pressures, removal of tubing BOP's, installation of wellhead, running PCPump and rods, pressure testing tubing, rigging out and moving in a convoy. Ensured all personnel had valid safety tickets and Blackspur Oil Corp. orientation.  SITP: Vacuum. SICP: Vacuum.					
07:30	12:00	4.5 h		Read and recorded SIP's, open tubing and casing to atmosphere, well was dead. Rigged out work floor, power tongs, v-door and tubing handling equipment. Removed class II tubing BOP's, 88.9 mm, EUE landing joint and T.I. valve. Installed 21 MPa, R45 flanged pumping style wellhead top section, plumbed flow lines back in and checked ratigan rubbers. Flushed tubing with 5 m³ of warm produced water. Stripped on and function tested rod BOP, tested good. Rigged up Amped Energy Services gripper unit and boom guide section. Ran in with new PCPump rotor and continues rod string torqued to manufacturers specifications as follows:  - 1 Weatherford 59-1800 rotor, WFT 59-1800 415708 XL. - 1 x 1297 m x 28.6 mm ProRod Grade “780M” Co-rod, 25.4 mm pins, 4th run, good condition. - 1 x 25.4 mm x 31.75 mm, Grade “D”, PLAIN sucker rods. - 1 x 25.4 mm x 31.75 mm, Grade “D”, PLAIN pony rods, 0.32 m, 2.44 m and 3.1 m. - 1 x 31.75 mm x 12.2 m 4140 polished rod, 22.2 mm pins, new.  Spaced out as above, installed new Weatherford, MGX DS500, PCPumping unit drive head (#319995820) and clamped off rod string with 8 bolt lock with the PCPump spaced out 0.76 cm/30" off tag bar with 1.4 m stick up. Installed brackets and turnbuckles attached to casing hanger flange up to drive head for weight support.					
12:00	15:00	3.0 h		Rigged out service rig and support equipment. Parked equipment on the side of location and prepared for move. Conducted a lease clean up and performed a final walk around inspection with rig crew to ensure no garbage or debris is left on the ground. Installed fence around wellhead and pumping unit. Cleaned, inspected over head and handling equipment. Fueled up equipment and shut down operations for night.  Note: - Moved equipment off lease the following morning on the frost.  Met with well operator Lantz Mayr. Discussed operations that took place, findings. Installed instruments, heat trace, chemical lines and other surface equipment onto wellhead and pumping unit. Checked for alignment and monitor pumping unit and function tested both presco switches, tested good shut unit down at 3.1 MPa. Pumping unit is set at 150 RPM. Performed a final walk around inspection and well turn over.  Final report, well is back online and is turned back over to production operations – Lantz Mayr - 780-237-9475.					
DAILY FLUIDS									
COMPANY	TICKET	SOURCE/DESTINATION		LEASE ( m³ )		WELL ( m³ )		REMAINING ( m³ )	
				TO	FROM	TO	FROM	TANK	WELL
Produced water									
						28.00		0.00	28.00
		TODAY		0.00	0.00	28.00	0.00	-28.00 m³	28.00
		RUNNING		28.00	0.00	28.00	0.00	0.00	28.00



WELL DATA							
LICENSE #	UWI		EVENT		AFE NUMBER		AFE \$
0502001	100/16-11-051-02W5/00		Pump Change		230P0012		\$0.00
GROUND ELE	KB > GROUND	KB ELE	CF > GROUND	TH > GROUND	KB > TH	DH > GROUND	KB > DH
742.01 m	5.50 m	747.51 m	0.00 m	0.60 m	4.90 m	0.00 m	5.50 m
REPORT DETAILS							
REPORT DATE	PERCENT COMPLETE		RIG TIME		TOTAL RIG TIME		MAN HOURS
2023-03-16	-		11.00 hr		18.50 hr		100.00 hr
TOTAL TIME	NON-PRODUCTIVE		FLARE VOLUME		TOTAL DAILY FLARE		CASING PRESSURE
11.00 hr	0.00 hr		-		0.00 e³m³		0.00 kPa
COSTS					DAILY RENTALS		
TOTAL DAILY	COMPL. TOTAL		TOTAL CUMULATIVE		COMPL. CUMULATIVE		TOTAL DAILY
\$45,112.70	\$45,112.70		\$58,755.17		\$58,755.17		\$0.00
DAILY OPERATIONS					PERSONNEL		
<b>DAILY STATUS</b> Sparky: Moved in slick line rig and cut hole in tubing. Flushed tubing and casing with hot produced water. Pulled and inspected production tubing string. 0.2 m / 1.5 L of bottom settlement in bull plug of degasser chamber. Ran approved BHA, new PCPump and replacement tubing.  <b>24 HOUR SUMMARY</b> Moved in slick line rig and cut hole in tubing at 1282 mKB, tubing went on vacuum. Flushed tubing with 6 m³ and casing with 10 m³ of hot produced water. Pulled and inspected production tubing string while trickling hot water down casing, 117 yellow, 14 blue, 5 green and 2 red band, wall lose and rod wear was found. Disassembled and cleaned BHA and reported finding to Calgary, 0.2 m / 1.5 L of bottom settlement, asphaltenes and sand in bottom bull plug of degasser chamber. Ran approved BHA, new PCPump, replacement tubing and landed end at 1394.67 mKB / 1321.24 mTVD, 63° inclination.  <b>NEXT 24 HOURS</b> Remove class II tubing BOP's and install wellhead and flowline piping. Run new PCPump rotor and continues rod string. Fill and pressure test tubing to 5 MPa. Install new PCPumping unit drive head. Put well back online and rigged out equipment and prepare to move off lease the following morning on the frost.					OPERATIONS MANAGER - <span>On Site</span>		
					Kevin Saizew 403-999-8087		
					CONSULTANT - <span>On Site</span>		
					Simon Kaiser 403-348-1053		
					RIG MANAGER - DAY SHIFT - <span>On Site</span>		
					Brian Payne 780-898-1331		
COMPLETION RIGS							
CONTRACTOR		#	START	RELEASE			
CWC Energy Services Corp RTS		162	2023-03-15				
WEATHER							
GENERAL							
Sunny							
ROAD CONDITION							
Snow covered and firm.							
TIME		TEMP					
09:05		-4°C					
TIME LOG							
FROM	TO	DUR	NPT CODE	DETAILS			
07:00	07:30	0.5 h		Conducted LEL sweep of location, none found. Serviced, started and warmed up equipment. Held safety and operational meeting. Issued and reviewed ERP, Directive 33, Blackspur Oil Corp. safe work permit and hazard assessment. Discussed the hazards of working over a live well and reviewed applicable SR's. Discussed taking wellhead pressures, slick line operations, pumping operations, pulling and inspecting tubing, running tubing out of derrick, removal of tubing BOP's and installation of wellhead. Ensured all personnel had valid safety tickets and Blackspur Oil Corp orientation.			
				SITP: 0 kPa. SICP: 0 kPa.			
07:30	10:00	2.5 h		Read and recorded SIP's and opened tubing and casing to rig tank, well was dead. Spotted and rigged up slickline rig and support equipment with proper spacing and according to AER, Quicksilver Wireline and Blackspur Oil Corp specifications.  Run #1: Ran a 88.9 mm mechanical knife perforator with collar stop and cut a hole in tubing at 1282 mKB, tubing went on vacuum post perforating. Bullheaded and flushed tubing with hot produced water at 300 L/minute at 0 MPa, 3 m³ pumped, tubing went on vacuum after pumping. Rigged out and release slickline.			
				Note: - While rigging up slickline, bullheaded and flushed casing with hot produced water at 400 L/minute at 0 MPa, 10 m³ pumped, casing went on vacuum after pumping. - Extra time was needed for the above step due to thick oil in the tubing.			
10:00	14:30	4.5 h		Hoisted and removed tubing hanger from string. Installed striping rubber, collar, inspection tool and power tong on first tubing joint. While flushing hot produced water down casing, pulled and inspected production tubing string as follows:  - 1 x 177mm x 89mm TC tubing hanger, less top collar, 0.15 m - 138 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing joints, 1320.79 m, bottom 3 joints are Q2 wear resistant L80 joints, yellow band. - 1 x 88.9 mm, 13.85 kg/m, Boronized, EUE, tubing pup joint, 1.86 m. - 1 x Weatherford 59-1800 Stator with tag bar, WFT 59-1800-HN314 10754277, Ran at 6.7% EFF, 300 RPM, Full Lift, 967.00 ft/lbs torque, 10.71 m. - 1 x 177 mm x 89 mm 5 blade CTA NTT, 0.7 m. - 1 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing pup joint, 1.86 m. - 1 x 88.9 mm, EUE x 73 mm, EUE, bottle neck cross over sub, 0.14 m. - 1 x Spirit Hybrid x 2 piece gas separator, 5.78 m. - 1 x 73 mm, EUE x 88.9 mm, EUE, cross over sub, 0.15 m. - 5 x 88.9 mm, 13.85 kg/m, J55, EUE, blue band degasser chamber tubing joints, 47.97 m. - 1 x 88.9 mm, tubing collar with a bull plug on the bottom, 0.25 m.			
				Notes: - Hole in joint 134 from surface, tubing punch. - Mud canned out last 4 joints above PCPump. - Mud canned out bottom 5 chamber joints, all water. - 0.2 m / 1.5 L of bottom settlement, asphaltenes and sand in bottom bull plug of degasser chamber. - Inspected and cleaned gas separator, could clearly see thru, was not plugged and had water drain out when breaking the bottom connection. - 117 yellow band, 14 blue band, 5 green band and 2 red band, wall lose and rod wear was found, 138 total. - 2 m³ of hot produced water pumped down casing while pulling tubing. - Equipment hauled off location: 7 x 88.9 mm, 13.85 kg/m, J55, EUE, red and green band tubing joints hauled to Rugged Oilfield Services Ltd. via a Rugged Oilfield Services Ltd, "JUNK" tubing. - Equipment hauled to location: 7 x 88.9 mm, 13.85 kg/m, J55, EUE, yellow band tubing joints from 16-05-049-01W5 battery, replacement tubing.			
14:30	17:30	3.0 h		Assembled and tallied BHA and ran production tubing string as follows:			

- 1 x 88.9 mm, tubing collar with a bull plug on the bottom, 0.25 m.
- 5 x 88.9 mm, 13.85 kg/m, J55, EUE, blue band degasser chamber tubing joints, 47.97 m.
- 1 x 88.9 mm, EUE x 73 mm, EUE, cross over sub, 0.15 m.
- 1 x Spirit Hybrid x 2 piece gas separator, 5.78 m, cleaned, inspected and re-ran.
- 1 x 73 mm, EUE x 88.9 mm, EUE, bottle neck cross over sub, 0.14 m.
- 1 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing pup joint, 1.86 m.
- 1 x 177 mm x 89 mm 5 blade CTA NTT, 0.7 m, new.
- 1 x Weatherford 59-1800 Stator with tag bar, WFT 59-1800-HN314 10754277, ran at 6.7% EFF, 300 RPM, Full Lift, 937 ft/lbs torque, 10.71 m.
- 1 x 88.9 mm, 13.85 kg/m, Boronized, EUE, tubing pup joint, 1.86 m, new.
- 3 x 88.9 mm, 13.85 kg/m, L80, EUE, Q2 wear resistant yellow band tubing joints, 28.71 m.
- 135 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing joints, 1291.44 m, 121 yellow band and 14 blue band.
- 1 x 177mm x 89mm TC tubing hanger, less top collar, 0.15 m

Spaced out as above, set no turn tool, landed hanger and secured lag screws.

Notes:

- PCPump top at 1327.08 mKB / 1283.87 mTVD, 49° inclination.
- PCPump bottom at 1337.77 mKB / 1290.84 mTVD, 50° inclination.
- Tubing end/bull plug at 1394.67 mKB / 1321.24 mTVD, 63° inclination.
- Liner top at 1570.22 mKB / 1364 mTVD, 86° inclination.
- 138 joints to top of PCPump and 143 joints total in well.

17:30 18:00 0.5 h

Secured well and drained and winterised equipment. Cleaned, inspected over head and handling equipment. Fueled up equipment and shut down operations for night.

DAILY FLUIDS

COMPANY	TICKET	SOURCE/DESTINATION	LEASE ( m <sup>3</sup> )		WELL ( m <sup>3</sup> )		REMAINING ( m <sup>3</sup> )	
			TO	FROM	TO	FROM	TANK	WELL
Produced water								
		TODAY	0.00	0.00	0.00	0.00	0.00 m <sup>3</sup>	0.00
		RUNNING	28.00	0.00	0.00	0.00	28.00	0.00

WELL DATA							
LICENSE #	UWI		EVENT		AFE NUMBER		AFE \$
0502001	100/16-11-051-02W5/00		Pump Change		23OP0012		\$0.00
GROUND ELE	KB > GROUND	KB ELE	CF > GROUND	TH > GROUND	KB > TH	DH > GROUND	KB > DH
742.01 m	5.50 m	747.51 m	0.00 m	0.60 m	4.90 m	0.00 m	5.50 m
REPORT DETAILS							
REPORT DATE	PERCENT COMPLETE		RIG TIME		TOTAL RIG TIME		MAN HOURS
2023-03-15	-		7.50 hr		7.50 hr		90.00 hr
TOTAL TIME	NON-PRODUCTIVE		FLARE VOLUME		TOTAL DAILY FLARE		CASING PRESSURE
8.00 hr	0.00 hr		-		0.00 e³m³		200.00 kPa
COSTS						DAILY RENTALS	
TOTAL DAILY		COMPL. TOTAL		TOTAL CUMULATIVE		COMPL. CUMULATIVE	
\$13,642.47		\$13,642.47		\$13,642.47		\$13,642.47	
DAILY OPERATIONS						PERSONNEL	
<div>DAILY STATUS Sparky: Moved in service rig. Pressure tested tubing to 7 MPa, slight leak off noted. Removed drive head and secured on stand. Pulled continuous rod string, looked good. Failure mechanism was a broken rotor. Removed wellhead and installed BOP's.</div> <div>24 HOUR SUMMARY Moved in service rig. Tested SCV, 45 bubbles/minute. Pressure tested tubing to 7 MPa, slight leak off was noted down to 2 MPa in 10 minutes. Removed Weatherford, MGX GEN3_0, PCPumping unit drive head and secured on stand. Pulled, visually inspect, spooled and gauge continuous rod string with wrench while pulling, string looked good Failure mechanism was a broken rotor 0.2 m down from top. Removed wellhead and installed and pressure tested tubing BOP's.</div> <div>NEXT 24 HOURS Move in slick line rig and cut hole in tubing. Flush tubing and casing with hot produced water. Pull, inspect and rack production tubing string in derrick. Disassemble and clean BHA and report finding to Calgary. Run approved BHA and new PCPump and land tubing end at ~1395.31 mKB / ~1321 mTVD.</div>						OPERATIONS MANAGER	
						Kevin Saizew 403-999-8087	
						CONSULTANT	
						Simon Kaiser 403-348-1053	
						RIG MANAGER - DAY SHIFT	
						Brian Payne 780-898-1331	
						COMPLETION RIGS	
						CONTRACTOR	# START RELEASE
						CWC Energy Services Corp RTS	162 2023-03-15
						WEATHER	
GENERAL							
Sunny							
ROAD CONDITION							
Snow covered and firm.							
TIME	TEMP						
10:30	-11°C						
TIME LOG							
FROM	TO	DUR	NPT CODE	DETAILS			
10:00	11:15	1.25 h		From Devon Alberta travel North/West on Highway 60 to Township Road 511, then turn left and travel West to Range Road 273, then turn right and travel North to Township Road 512, then turn left and travel West to Highway 771, then turn left and travel South to Range Road 23, then turn left and travel South for 1.2 km, then turn left and travel East 0.6 km into location.  On Tuesday March 14th, 2023, performed a walk around inspection and well turn over with Well Operator Lantz Mayr (Well or Facility Turnover Report). Discussed all site hazards, conducted a run through on the flow line piping, pumping unit RMP's (150), production volumes (5 m³, 70 m³ and 11.5 e³m³), shut in pressures and site ESD.  Completed pre-trip inspections. Moved CWC Energy Services class II/III, conventional freestanding single service rig 162 and support equipment from Drayton Valley Alberta home base to 100/16-11-051-02W5. Parked equipment on the side of location, completed post-trip inspections an prepared for safety meeting.			
11:15	11:45	0.5 h		Held safety and operational meeting. Issued and reviewed ERP, Directive 33, Blackspur Oil Corp. safe work permit and hazard assessment. Discussed the hazards of working over a live well and reviewed applicable SR's. Discussed taking wellhead pressures, rigging up service rig and support equipment, bleeding down a 0.2 MPa gas head, pumping operations, removal of PCPump drive head, rigging up gripper unit, pulling continues rod string, removal of wellhead and installation of tubing BOP's. Ensured all personnel had valid safety tickets and Blackspur Oil Corp orientation.  SITP: 20 kPa. SICP: 200 kPa. SCVF: 45 bubbles/minute, active test.			
11:45	13:00	1.25 h		Spotted and rigged up service rig and support equipment with proper spacing and according to AER, OH&S, CWC Energy Services and Blackspur Energy Corp. specifications. Unloaded 28 m³ of hot produced water into rig tank.  Read and recorded SIP's. Performed a 10 minute bubble test with a cup tester submerged in 2.54 cm of water on the SCV and observed to 45 bubbles/minute with flow/bubbles starting after 8 minutes, active test.  Opened tubing and casing to rig tank, well was dead after bleeding down for 1 minute. Pressure tested tubing to 7 MPa, slight leak off was noted down to 2 MPa in 10 minutes.			
13:00	14:00	1.0 h		Latched on and picked up polish rod, no rotation was noted. Rod pulled free at 4,500 daN, no over pull to get moving, steady pull out of hole.  Stripped off and removed Weatherford, MGX GEN3_0, PCPumping unit drive head and secured on stand. Removed polished rod, rigged up work floor and stripped and function tested rod BOP. Rigged up Amped Energy Services gripper unit, boom section and real. Laid out pony rods and one full rod, closed rod BOP and attempted to pump down tubing with no success, pressured up to 7 MPa with only a slight bleed off.			
14:00	16:00	2.0 h		Pulled, visually inspect, spooled and gauged continuous rod string with wrench while pulling as follows:  - 1 x 31.75 mm x 12.2 m 4140 polished rod, 22.2 mm pins, worn and will need to be replaced. - 1 x 25.4 mm x 76.2 mm, spin thru coupling for 88.9 mm tubing, 0.15 m. - 1 x 25.4 mm x 31.75 mm, Grade "D", PLAIN pony rods, 0.32 m, 0.64 m, 2.44 m and 3.1 m. - 1 x 25.4 mm x 31.75 mm, Grade "D", PLAIN sucker rods. - 1 x 1297 m x 28.6 mm ProRod Grade "780M" Co-rod, 25.4 mm pins, good condition. - 1 Weatherford 59-1800 rotor, broken 0.2 m down from top.			
				Notes:			



			- Failure mechanism was a broken rotor 0.2 m down from top. - Ponies, rods and continues rod string appeared to be in good visual condition.
16:00	17:30	1.5 h	Stump, pressure tested BOP system to a low of 1.4 MPa and a high of 21 MPa for 10 minutes each, tested good. Removed 21 MPa, R45 flanged pumping style wellhead top section and installed a 88.9 mm, J-55 landing joint and safety valve. Unsecured lag screws, hoisted tubing hanger and checked for anchor, no overpull was noted. Re-landed tubing hanger and installed class II tubing BOP's. Rigged up work floor and prepared handling equipment. Pressure tested ring seal at well head BOP connection, and pipe rams to a low of 1.4 MPa and a high of 21 MPa for 10 minute each, tested good.
17:30	18:00	0.5 h	Secured well and drained and winterised equipment. Cleaned, inspected over head and handling equipment. Fueled up equipment and shut down operations for night.

DAILY FLUIDS								
COMPANY	TICKET	SOURCE/DESTINATION	LEASE ( m³ )		WELL ( m³ )		REMAINING ( m³ )	
			TO	FROM	TO	FROM	TANK	WELL
Produced water								
Wilf Brandt Trucking	208973	16-05-050-01W5	28.00				28.00	0.00
			TODAY	28.00	0.00	0.00	0.00	28.00 m³
			RUNNING	28.00	0.00	0.00	0.00	28.00

ENERGY CORP.

WELL DATA					
NAME	LICENSE #	COST CENTRE	UWI	LOCATION	
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada	
COMPLETIONS DATA					
NAME	START DATE	END DATE	AFE #	AFE \$	
Pump Change	2023-03-15	2023-03-17	23OP0012	\$0.00	
COST TOTALS					
COST ITEM	ESTIMATE	FIELD	EST v FIELD	ACTUAL	FIELD v ACTUAL
9815-408 - EQUIPMENT - BOILER *INACTIVE	\$0.00	\$3,997.50	-\$3,997.50	\$0.00	\$3,997.50
9815-439 - EQUIPMENT RENTALS *INACTIVE	\$0.00	\$750.00	-\$750.00	\$0.00	\$750.00
9815-443 - FLUID HAULING (TANK TRUCKS) *INACTIVE	\$0.00	\$800.00	-\$800.00	\$0.00	\$800.00
9815-447 - FREIGHT & HAULING *INACTIVE	\$0.00	\$7,420.00	-\$7,420.00	\$0.00	\$7,420.00
9815-453 - LIQUIDS/SOLIDS DISPOSAL *INACTIVE	\$0.00	\$324.20	-\$324.20	\$0.00	\$324.20
9815-467 - SERVICE RIG *INACTIVE	\$0.00	\$30,070.46	-\$30,070.46	\$0.00	\$30,070.46
9815-469 - SITE PREPARATION/RESTORATION *INACTIVE	\$0.00	\$485.63	-\$485.63	\$0.00	\$485.63
9815-479 - TESTING & SURVEYS *INACTIVE	\$0.00	\$2,484.50	-\$2,484.50	\$0.00	\$2,484.50
9815-481 - VACUUM SERVICES *INACTIVE	\$0.00	\$2,022.30	-\$2,022.30	\$0.00	\$2,022.30
9815-483 - WELLSITE SUPERVISION & CONSULT *INACTIVE	\$0.00	\$4,400.00	-\$4,400.00	\$0.00	\$4,400.00
9815-485 - SLICKLINE SERVICES *INACTIVE	\$0.00	\$3,508.91	-\$3,508.91	\$0.00	\$3,508.91
9815-507 - BOTTOM HOLE PUMP - RECOVERABLE *INACTIVE	\$0.00	\$18,584.07	-\$18,584.07	\$0.00	\$18,584.07
9815-589 - WELLHEAD *INACTIVE	\$0.00	\$8.07	-\$8.07	\$0.00	\$8.07
TOTAL	\$0.00	\$74,855.64	-\$74,855.64	\$0.00	\$74,855.64

WELL DATA				ENERGY COST	
NAME	LICENSE #	COST CENTRE	UWI	LOCATION	
Thorsby 100/16-11-051-02W5/00 (\$14-03)	0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada	
COMPLETIONS DATA					
NAME	START DATE	END DATE	AFE #	AFE \$	
Pump Change	2023-03-15	2023-03-17	23OP0012	\$0.00	
DAILY BREAKDOWN					
CODE - COST ITEM	2023-03-15	2023-03-16	2023-03-17	TOTAL	RUN. TOTAL
9815-408 - EQUIPMENT - BOILER (inactive)	\$0.00	\$0.00	\$3,997.50	\$3,997.50	\$3,997.50
TKO Rentals Ltd (BS): Mobile streamer			\$3,997.50	\$3,997.50	
9815-439 - EQUIPMENT RENTALS (inactive)	\$0.00	\$0.00	\$750.00	\$750.00	\$750.00
TKO Rentals Ltd (BS): Rental equipment			\$750.00	\$750.00	
9815-443 - FLUID HAULING (TANK TRUCKS) (inactive)	\$800.00	\$0.00	\$0.00	\$800.00	\$800.00
Wilf Brandt Trucking (BS): Hauled hot produced water from 16-05-050-01W5 battery	\$800.00			\$800.00	
9815-447 - FREIGHT & HAULING (inactive)	\$0.00	\$7,120.00	\$300.00	\$7,420.00	\$7,420.00
Rugged Oilfield Services (BS): Hauled PCPump's to and from location		\$7,120.00		\$7,120.00	
TKO Rentals Ltd (BS): Hauled rental equipment			\$300.00	\$300.00	
9815-453 - LIQUIDS/SOLIDS DISPOSAL (inactive)	\$0.00	\$0.00	\$324.20	\$324.20	\$324.20
Secure Energy Services (BS): Disposal of waste fluid			\$324.20	\$324.20	
9815-467 - SERVICE RIG (inactive)	\$10,806.84	\$9,959.85	\$9,303.77	\$30,070.46	\$30,070.46
CWC Energy Services Corp (BS): Freestanding, class II, conventional, single	\$7,686.59	\$9,959.85	\$6,695.14	\$24,341.58	
Amped Energy Services (BS): Continuous rod gripper, rig assist	\$3,120.25		\$2,608.63	\$5,728.88	
9815-469 - SITE PREPARATION/RESTORATION (inactive)	\$485.63	\$0.00	\$0.00	\$485.63	\$485.63
Shawns Oilfield Service (BS): Removed snow from access road and lease.	\$485.63			\$485.63	
9815-479 - TESTING & SURVEYS (inactive)	\$0.00	\$2,484.50	\$0.00	\$2,484.50	\$2,484.50
Arkk Tubing Inspection Services (BS): Inspected 183 joints of 88.9 mm tubing		\$2,484.50		\$2,484.50	
9815-481 - VACUUM SERVICES (inactive)	\$0.00	\$2,022.30	\$0.00	\$2,022.30	\$2,022.30
Miktye Trucking Ltd (BS): Vacuum truck		\$2,022.30		\$2,022.30	
9815-483 - WELLSITE SUPERVISION & CONSULT (inactive)	\$1,550.00	\$1,425.00	\$1,425.00	\$4,400.00	\$4,400.00
1807025 Alberta Ltd. (BS): Simon Kaiser	\$1,550.00	\$1,425.00	\$1,425.00	\$4,400.00	
9815-485 - SLICKLINE SERVICES (inactive)	\$0.00	\$3,508.91	\$0.00	\$3,508.91	\$3,508.91
Quick Silver Wireline Services Ltd (BS): Cut hole in tubing		\$3,508.91		\$3,508.91	
9815-507 - BOTTOM HOLE PUMP - RECOVERABLE (inactive)	\$0.00	\$18,584.07	\$0.00	\$18,584.07	\$18,584.07
Weatherford: PCP ID: WFT 59-1800-HN314 10754277-415708 XL 300-30		\$18,584.07		\$18,584.07	
9815-589 - WELLHEAD (inactive)	\$0.00	\$8.07	\$0.00	\$8.07	\$8.07
APEX DISTRIBUTION INC. (BS): Tubing hanger rubbers for wellhead		\$8.07		\$8.07	
DAILY	\$13,642.47	\$45,112.70	\$16,100.47	\$74,855.64	
CUMULATIVE	\$13,642.47	\$58,755.17	\$74,855.64		\$74,855.64

WELL DATA					
NAME	LICENSE #	COST CENTRE	UWI	LOCATION	
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada	
COMPLETIONS DATA					
NAME	START DATE	END DATE	AFE #	AFE \$	
Pump Change	2023-03-15	2023-03-17	23OP0012	\$0.00	
vendor// 1807025 ALBERTA LTD. (BS)				VENDOR TOTAL \$4,400.00	
cost code// 9815-483 - WELLSITE SUPERVISION & CONSULT (INACTIVE)				TOTAL \$4,400.00	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-15		Simon Kaiser		Kaiser Blackspur-3	\$1,550.00
2023-03-16		Simon Kaiser		Kaiser Blackspur-3	\$1,425.00
2023-03-17		Simon Kaiser		Kaiser Blackspur-3	\$1,425.00
vendor// AMPED ENERGY SERVICES (BS)				VENDOR TOTAL \$5,728.88	
cost code// 9815-467 - SERVICE RIG (INACTIVE)				TOTAL \$5,728.88	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-15		Continuous rod gripper, rig assist		TMX1-444	\$3,120.25
2023-03-17		Continuous rod gripper, rig assist		TMX1-445	\$2,608.63
vendor// APEX DISTRIBUTION INC. (BS)				VENDOR TOTAL \$8.07	
cost code// 9815-589 - WELLHEAD (INACTIVE)				TOTAL \$8.07	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-16		Tubing hanger rubbers for wellhead		200-221189-00	\$8.07
vendor// ARKK TUBING INSPECTION SERVICES (BS)				VENDOR TOTAL \$2,484.50	
cost code// 9815-479 - TESTING & SURVEYS (INACTIVE)				TOTAL \$2,484.50	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-16		Inspected 183 joints of 88.9 mm tubing		230314	\$2,484.50
vendor// CWC ENERGY SERVICES CORP (BS)				VENDOR TOTAL \$24,341.58	
cost code// 9815-467 - SERVICE RIG (INACTIVE)				TOTAL \$24,341.58	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-15		Freestanding, class II, conventional, single		TR00262212	\$7,686.59
2023-03-16		Freestanding, class II, conventional, single		TR00262213	\$9,959.85
2023-03-17		Freestanding, class II, conventional, single		TR00262214	\$6,695.14
vendor// MIKTYE TRUCKING LTD (BS)				VENDOR TOTAL \$2,022.30	
cost code// 9815-481 - VACUUM SERVICES (INACTIVE)				TOTAL \$2,022.30	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-16		Vacuum truck		105637	\$2,022.30
vendor// QUICK SILVER WIRELINE SERVICES LTD (BS)				VENDOR TOTAL \$3,508.91	
cost code// 9815-485 - SLICKLINE SERVICES (INACTIVE)				TOTAL \$3,508.91	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-16		Cut hole in tubing		45916	\$3,508.91
vendor// RUGGED OILFIELD SERVICES (BS)				VENDOR TOTAL \$7,120.00	
cost code// 9815-447 - FREIGHT & HAULING (INACTIVE)				TOTAL \$7,120.00	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-16		Hauled PCPump's to and from location		4917	\$7,120.00
vendor// SECURE ENERGY SERVICES (BS)				VENDOR TOTAL \$324.20	
cost code// 9815-453 - LIQUIDS/SOLIDS DISPOSAL (INACTIVE)				TOTAL \$324.20	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-17		Disposal of waste fluid		BCFST905784	\$324.20
vendor// SHAWNS OILFIELD SERVICE (BS)				VENDOR TOTAL \$485.63	
cost code// 9815-469 - SITE PREPARATION/RESTORATION (INACTIVE)				TOTAL \$485.63	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-15		Removed snow from access road and lease.		5957	\$485.63
vendor// TKO RENTALS LTD (BS)				VENDOR TOTAL \$5,047.50	
cost code// 9815-408 - EQUIPMENT - BOILER (INACTIVE)				TOTAL \$3,997.50	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-17		Mobile streamer		DV-2395-3	\$3,997.50
cost code// 9815-439 - EQUIPMENT RENTALS (INACTIVE)				TOTAL \$750.00	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT
2023-03-17		Rental equipment		DV-2395-1	\$750.00
cost code// 9815-447 - FREIGHT & HAULING (INACTIVE)				TOTAL \$300.00	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET	AMOUNT



Thorsby 100/16-11-051-02W5/00 (S14-03) - Pump Change Cost Summary  
Thorsby 100/16-11-051-02W5/00 (S14-03) • 100/16-11-051-02W5/00 • #0502001



2023-03-17	Hauled rental equipment	DV-2395-2	\$300.00
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vendor// WEATHERFORD			VENDOR TOTAL \$18,584.07	
cost code// 9815-507 - BOTTOM HOLE PUMP - RECOVERABLE (INACTIVE)			TOTAL \$18,584.07	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET
2023-03-16		PCP ID: WFT 59-1800-HN314 10754277-415708 XL 300-30		15109971 SO
				\$18,584.07

vendor// WILF BRANDT TRUCKING (BS)			VENDOR TOTAL \$800.00	
cost code// 9815-443 - FLUID HAULING (TANK TRUCKS) (INACTIVE)			TOTAL \$800.00	
DAILY REPORT	VENDOR CODE	DESCRIPTION	PURCHASE ORDER	TICKET
2023-03-15		Hauled hot produced water from 16-05-050-01W5 battery		208973
				\$800.00

GRAND TOTAL			\$74,855.64	
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Completions Fuel Inventory

WELL DATA				
NAME	LICENSE #	COST CENTRE	UWI	LOCATION
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada
NAME	START DATE	END DATE	AFE #	AFE AMOUNT
Completions	2023-03-15	2023-03-17	23OP0012	\$0.00
FUEL INVENTORY				

WELL DATA									
NAME		LICENSE #		COST CENTRE		UWI		LOCATION	
Thorsby 100/16-11-051-02W5/00 (S14-03)		0502001		WL2450239		100/16-11-051-02W5/00		Thorsby / Thorsby AB, Canada	
COMPLETIONS DATA									
NAME		START DATE		END DATE		AFE #		AFE AMOUNT	
Pump Change		2023-03-15		2023-03-17		230P0012		\$0.00	
TIME LOG									
FROM	TO	DUR	NPT	CODE	DETAIL				
Completions Daily Report • 2023-03-15									
10:00	11:15	1.25 hr			From Devon Alberta travel North/West on Highway 60 to Township Road 511, then turn left and travel West to Range Road 273, then turn right and travel North to Township Road 512, then turn left and travel West to Highway 771, then turn left and travel South to Range Road 23, then turn left and travel South for 1.2 km, then turn left and travel East 0.6 km into location. On Tuesday March 14th, 2023, performed a walk around inspection and well turn over with Well Operator Lantz Mayr (Well or Facility Turnover Report). Discussed all site hazards, conducted a run through on the flow line piping, pumping unit RMP's (150), production volumes (5 m³, 70 m³ and 11.5 e³m³), shut in pressures and site ESD. Completed pre-trip inspections. Moved CWC Energy Services class II/III, conventional freestanding single service rig 162 and support equipment from Drayton Valley Alberta home base to 100/16-11-051-02W5. Parked equipment on the side of location, completed post-trip inspections an prepared for safety meeting.				
11:15	11:45	0.50 hr			Held safety and operational meeting. Issued and reviewed ERP, Directive 33, Blackspur Oil Corp. safe work permit and hazard assessment. Discussed the hazards of working over a live well and reviewed applicable SR's. Discussed taking wellhead pressures, rigging up service rig and support equipment, bleeding down a 0.2 MPa gas head, pumping operations, removal of PCPump drive head, rigging up gripper unit, pulling continues rod string, removal of wellhead and installation of tubing BOP's. Ensured all personnel had valid safety tickets and Blackspur Oil Corp orientation. SITP: 20 kPa. SICP: 200 kPa. SCVF: 45 bubbles/minute, active test.				
11:45	13:00	1.25 hr			Spotted and rigged up service rig and support equipment with proper spacing and according to AER, OH&S, CWC Energy Services and Blackspur Energy Corp. specifications. Unloaded 28 m³ of hot produced water into rig tank. Read and recorded SIP's. Performed a 10 minute bubble test with a cup tester submerged in 2.54 cm of water on the SCV and observed to 45 bubbles/minute with flow/bubbles starting after 8 minutes, active test. Opened tubing and casing to rig tank, well was dead after bleeding down for 1 minute. Pressure tested tubing to 7 MPa, slight leak off was noted down to 2 MPa in 10 minutes.				
13:00	14:00	1.00 hr			Latched on and picked up polish rod, no rotation was noted. Rod pulled free at 4,500 daN, no over pull to get moving, steady pull out of hole. Stripped off and removed Weatherford, MGX GEN3_0, PCPumping unit drive head and secured on stand. Removed polished rod, rigged up work floor and stripped and function tested rod BOP. Rigged up Amped Energy Services gripper unit, boom section and real. Laid out pony rods and one full rod, closed rod BOP and attempted to pump down tubing with no success, pressured up to 7 MPa with only a slight bleed off.				
14:00	16:00	2.00 hr			Pulled, visually inspect, spooled and gauged continuous rod string with wrench while pulling as follows: - 1 x 31.75 mm x 12.2 m 4140 polished rod, 22.2 mm pins, worn and will need to be replaced. - 1 x 25.4 mm x 76.2 mm, spin thru coupling for 88.9 mm tubing, 0.15 m. - 1 x 25.4 mm x 31.75 mm, Grade "D", PLAIN pony rods, 0.32 m, 0.64 m, 2.44 m and 3.1 m. - 1 x 25.4 mm x 31.75 mm, Grade "D", PLAIN sucker rods. - 1 x 1297 m x 28.6 mm ProRod Grade "780M" Co-rod, 25.4 mm pins, good condition. - 1 Weatherford 59-1800 rotor, broken 0.2 m down from top. Notes: - Failure mechanism was a broken rotor 0.2 m down from top. - Ponies, rods and continues rod string appeared to be in good visual condition.				
16:00	17:30	1.50 hr			Stump, pressure tested BOP system to a low of 1.4 MPa and a high of 21 MPa for 10 minutes each, tested good. Removed 21 MPa, R45 flanged pumping style wellhead top section and installed a 88.9 mm, J-55 landing joint and safety valve. Unsecured lag screws, hoisted tubing hanger and checked for anchor, no overpull was noted. Re-landed tubing hanger and installed class II tubing BOP's. Rigged up work floor and prepared handling equipment. Pressure tested ring seal at well head BOP connection, and pipe rams to a low of 1.4 MPa and a high of 21 MPa for 10 minute each, tested good.				
17:30	18:00	0.50 hr			Secured well and drained and winterised equipment. Cleaned, inspected over head and handling equipment. Fueled up equipment and shut down operations for night.				
TOTAL		8.00 hr			Completions Daily Report • 2023-03-16				
07:00	07:30	0.50 hr			Conducted LEL sweep of location, none found. Serviced, started and warmed up equipment. Held safety and operational meeting. Issued and reviewed ERP, Directive 33, Blackspur Oil Corp. safe work permit and hazard assessment. Discussed the hazards of working over a live well and reviewed applicable SR's. Discussed taking wellhead pressures, slick line operations, pumping operations, pulling and inspecting tubing, running tubing out of derrick, removal of tubing BOP's and installation of wellhead. Ensured all personnel had valid safety tickets and Blackspur Oil Corp orientation. SITP: 0 kPa. SICP: 0 kPa.				
07:30	10:00	2.50 hr			Read and recorded SIP's and opened tubing and casing to rig tank, well was dead. Spotted and rigged up slickline rig and support equipment with proper spacing and according to AER, Quicksilver Wireline and Blackspur Oil Corp specifications. Run #1: Ran a 88.9 mm mechanical knife perforator with collar stop and cut a hole in tubing at 1282 mKB, tubing went on vacuum post perforating. Bullheaded and flushed tubing with hot produced water at 300 L/minute at 0 MPa, 3 m³ pumped, tubing went on vacuum after pumping. Rigged out and release slickline. Note: - While rigging up slickline, bullheaded and flushed casing with hot produced water at 400 L/minute at 0 MPa, 10 m³ pumped, casing went on vacuum after pumping. - Extra time was needed for the above step due to thick oil in the tubing.				
10:00	14:30	4.50 hr			Hoisted and removed tubing hanger from string. Installed striping rubber, collar, inspection tool and power tong on first tubing joint. While flushing hot produced water down casing, pulled and inspected production tubing string as follows: - 1 x 177mm x 89mm TC tubing hanger, less top collar, 0.15 m. - 138 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing joints, 1320.79 m, bottom 3 joints are Q2 wear resistant L80 joints, yellow band. - 1 x 88.9 mm, 13.85 kg/m, Boronized, EUE, tubing pup joint, 1.86 m. - 1 x Weatherford 59-1800 Stator with tag bar, WFT 59-1800-HN314 10754277, Ran at 6.7% EFF, 300 RPM, Full Lift, 967.00 ft/lbs torque, 10.71 m. - 1 x 177 mm x 89 mm 5 blade CTA NTT, 0.7 m. - 1 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing pup joint, 1.86 m. - 1 x 88.9 mm, EUE x 73 mm, EUE, bottle neck cross over sub, 0.14 m. - 1 x Spirit Hybrid x 2 piece gas separator, 5.78 m. - 1 x 73 mm, EUE x 88.9 mm, EUE, cross over sub, 0.15 m. - 5 x 88.9 mm, 13.85 kg/m, J55, EUE, blue band degasser chamber tubing joints, 47.97 m. - 1 x 88.9 mm, tubing collar with a bull plug on the bottom, 0.25 m. Notes: - Hole in joint 134 from surface, tubing punch. - Mud canned out last 4 joints above PCPump. - Mud canned out bottom 5 chamber joints, all water. - 0.2 m / 1.5 L of bottom settlement, asphaltenes and sand in bottom bull plug of degasser chamber. - Inspected and cleaned gas separator, could clearly see thru, was not plugged and had water drain out when breaking the bottom connection. - 117 yellow band, 14 blue band, 5 green band and 2 red band, wall lose and rod wear was found, 138 total. - 2 m³ of hot produced water pumped down casing while pulling tubing. - Equipment hauled off location: 7 x 88.9 mm, 13.85 kg/m, J55, EUE, red and green band tubing joints hauled to Rugged Oilfield Services Ltd. via a Rugged Oilfield Services Ltd, "JUNK" tubing. - Equipment hauled to location: 7 x 88.9 mm, 13.85 kg/m, J55, EUE, yellow band tubing joints from 16-05-049-01W5 battery, replacement tubing.				
14:30	17:30	3.00 hr			Assembled and tallied BHA and ran production tubing string as follows: - 1 x 88.9 mm, tubing collar with a bull plug on the bottom, 0.25 m. - 5 x 88.9 mm, 13.85 kg/m, J55, EUE, blue band degasser chamber tubing joints, 47.97 m. - 1 x 88.9 mm, EUE x 73 mm, EUE, cross over sub, 0.15 m. - 1 x Spirit Hybrid x 2 piece gas separator, 5.78 m, cleaned, inspected and re-ran. - 1 x 73 mm, EUE x 88.9 mm, EUE, bottle neck cross over sub, 0.14 m. - 1 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing pup joint, 1.86 m. - 1 x 177 mm x 89 mm 5 blade CTA NTT, 0.7 m, new. - 1 x Weatherford				

59-1800 Stator with tag bar, WFT 59-1800-HN314 10754277, ran at 6.7% EFF, 300 RPM, Full Lift, 937 ft/lbs torque, 10.71 m. - 1 x 88.9 mm, 13.85 kg/m, Boronized, EUE, tubing pup joint, 1.86 m, new. - 3 x 88.9 mm, 13.85 kg/m, L80, EUE, Q2 wear resistant yellow band tubing joints, 28.71 m. - 135 x 88.9 mm, 13.85 kg/m, J55, EUE, tubing joints, 1291.44 m, 121 yellow band and 14 blue band. - 1 x 177mm x 89mm TC tubing hanger, less top collar, 0.15 m Spaced out as above, set no turn tool, landed hanger and secured lag screws. Notes: - PCPump top at 1327.08 mKB / 1283.87 mTVD, 49° inclination. - PCPump bottom at 1337.77 mKB / 1290.84 mTVD, 50° inclination. - Tubing end/bull plug at 1394.67 mKB / 1321.24 mTVD, 63° inclination. - Liner top at 1570.22 mKB / 1364 mTVD, 86° inclination. - 138 joints to top of PCPump and 143 joints total in well.

17:30 18:00 0.50 hr

Secured well and drained and winterised equipment. Cleaned, inspected over head and handling equipment. Fueled up equipment and shut down operations for night.

**TOTAL11.00 hr**

**Completions Daily Report • 2023-03-17**

07:00 07:30 0.50 hr

Conducted LEL sweep of location, none found. Serviced, started and warmed up equipment. Read and recorded SIP's. Held safety and operational meeting. Issued and reviewed ERP, Directive 33, Blackspur Oil Corp. safe work permit and hazard assessment. Discussed the hazards of working over a live well and reviewed applicable SOP's. Discussed taking wellhead pressures, removal of tubing BOP's, installation of wellhead, running PCPump and rods, pressure testing tubing, rigging out and moving in a convoy. Ensured all personnel had valid safety tickets and Blackspur Oil Corp. orientation. SITP: Vacuum. SICP: Vacuum.

07:30 12:00 4.50 hr

Read and recorded SIP's, open tubing and casing to atmosphere, well was dead. Rigged out work floor, power tongs, v-door and tubing handling equipment. Removed class II tubing BOP's, 88.9 mm, EUE landing joint and T.I. valve. Installed 21 MPa, R45 flanged pumping style wellhead top section, plumbed flow lines back in and checked ratigan rubbers. Flushed tubing with 5 m<sup>3</sup> of warm produced water. Stripped on and function tested rod BOP, tested good. Rigged up Amped Energy Services gripper unit and boom guide section. Ran in with new PCPump rotor and continues rod string torqued to manufacturers specifications as follows: - 1 Weatherford 59-1800 rotor, WFT 59-1800 415708 XL. - 1 x 1297 m x 28.6 mm ProRod Grade "780M" Co-rod, 25.4 mm pins, 4th run, good condition. - 1 x 25.4 mm x 31.75 mm, Grade "D", PLAIN sucker rods. - 1 x 25.4 mm x 31.75 mm, Grade "D", PLAIN pony rods, 0.32 m, 2.44 m and 3.1 m. - 1 x 31.75 mm x 12.2 m 4140 polished rod, 22.2 mm pins, new. Spaced out as above, installed new Weatherford, MGX DS500, PCPumping unit drive head (#319995820) and clamped off rod string with 8 bolt lock with the PCPump spaced out 0.76 cm/30" off tag bar with 1.4 m stick up. Installed brackets and turnbuckles attached to casing hanger flange up to drive head for weight support.

12:00 15:00 3.00 hr

Rigged out service rig and support equipment. Parked equipment on the side of location and prepared for move. Conducted a lease clean up and performed a final walk around inspection with rig crew to ensure no garbage or debris is left on the ground. Installed fence around wellhead and pumping unit. Cleaned, inspected over head and handling equipment. Fueled up equipment and shut down operations for night. Note: - Moved equipment off lease the following morning on the frost. Met with well operator Lantz Mayr. Discussed operations that took place, findings. Installed instruments, heat trace, chemical lines and other surface equipment onto wellhead and pumping unit. Checked for alignment and monitor pumping unit and function tested both presco switches, tested good shut unit down at 3.1 MPa. Pumping unit is set at 150 RPM. Performed a final walk around inspection and well turn over. Final report, well is back online and is turned back over to production operations - Lantz Mayr - 780-237-9475.

**TOTAL8.00 hr**



WELL DATA				
NAME	LICENSE #	COST CENTRE	UWI	LOCATION
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada
COMPLETIONS DETAIL				
COMPLETIONS TYPE	START DATE	FINISH DATE	OBJECTIVE	
Open Hole	2023-03-15	2023-03-17	Sparky: Repair parted rod string and replace PCPump.	
NON-PRODUCTIVE TIME EVENTS				
No NPT events available				



WELL DATA									
NAME			LICENSE #	COST CENTRE	UWI	LOCATION			
Thorsby 100/16-11-051-02W5/00 (S14-03)			0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada			
COMPLETIONS DETAIL									
COMPLETIONS TYPE		START DATE	FINISH DATE	OBJECTIVE					
Open Hole		2023-03-15	2023-03-17	Sparky: Repair parted rod string and replace PCPump.					
DAILY FLUID MOVEMENT									
Produced water									
DATE	COMPANY	TICKET	SOURCE/DEST	LEASE ( m³ )		WELL ( m³ )		REMAINING ( m³ )	
				TO	FROM	TO	FROM	TANK	WELL
2023-03-15	Wilf Brandt Trucking	208973	16-05-050-01W5	28.00				28.00	0.00
2023-03-17						28.00		0.00	28.00
TOTAL				28.00	0.00	28.00	0.00	0.00	28.00



Remarks - Pump Change

WELL DATA				
NAME	LICENSE #	COST CENTRE	UWI	LOCATION
Thorsby 100/16-11-051-02W5/00 (S14-03)	0502001	WL2450239	100/16-11-051-02W5/00	Thorsby / Thorsby AB, Canada
COMPLETIONS DATA				
NAME	START DATE	END DATE	AFE #	AFE AMOUNT
Pump Change	2023-03-15	2023-03-17	23OP0012	\$0.00
Pump Change Remarks				