FOLD HERE →

159216

LICENCE NO.: (illegible) | WELL NAME AND NO.: CANADIAN FOREST OIL NORTH LIARD C-31A

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31A 60HO 1233.0-0 | UNIQUE ID.: 300 C-31A 60HO 1233.0-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR: 2010 | MONTH: 07 | DAY: 05

RIG NO.: 58

FUEL @ 8:00

RIG: 134 | BOILER:

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	216.7	71.61	BTC	H40	187	2637	5.70	2629.5

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
127	71.35	H40	76	158	4½ IF	33
127	58.07	E	101	156	4½ IF	138
127	58.07	E	108	176	4½ IF	14

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F1300	EMSCO	254
F1000	EMSCO	254
F800	EMSCO	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.						½	4½															Haliburton Tools	Gyro			
DAY							13½														1	3				
EVE.																						23½	2½			
TOTAL																										

TOTALS

8	SHALE SHAKER(S) NO.	TYPE Brandt	FLC
9	SCREENS CHANGED ☐ YES ☐ NO		
9	TOP 140	TOP 175	
8	MIDDLE 140	MIDDLE 175	
24	BOTTOM 140	BOTTOM 175	

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMS 496462			
AMS 4112			
Accum. Oil 36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.25 m
	MTR		6.13 m
	FLT SUB		0.75 m
3	NMDC		27.63 m
	HO		1.44 m
	CRCM SUB		3.56 m
7	HWDP		72.40 m
23	HWDP		220.75 m
		BHA	336.67 m

D.P. STANDS 72 — 2165.15 m
D.P. SINGLES — m
KELLY DOWN — 18.89 m
TOTAL — 2365 m
WT. OF DC — 20 000 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

BIT NO.	4
SIZE (mm)	215.9
IADC CODE	
MFG.	REED
TYPE	EHP51A
SERIAL NO.	JC1057
JETS (mm)	3 X 11.1
DEPTH OUT (m)	
DEPTH IN (m)	2364
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | TO | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
calcab	80 SX
Lignite	15 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2361.6				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1 LINER SIZE (mm) | PUMP NO. 1 S.P.M. | PUMP NO. 2 LINER SIZE (mm) | PUMP NO. 2 S.P.M.
152 | 152

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY: DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
(2330)	0100	1	6	RIH HWDP
0100	0130	½	5	Fill Pipe & Test MWD.
0130	0500	3½	6	RIH DP TO 2365m FILL PIPE every 10 STDS
0500	0800	3	22	CHANGE BAILS & RIG up Circ Head

NOTES: Crown Saver, ISR, Geo-Pilot, DEADLINE ANCHOR, BRAKES-LINKAGE, Boiler Blow down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	11.5	350°			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		0.25 m
1	MTR		6.13 m
1	FLT SUB		0.75 m
3	NMDC		27.63 m
1	HO		1.44 m
1	CRCM SUB		3.56 m
1	HO		1.44 m
7	HWDP		72.40 m
1	JAR		5.36 m
23	HWDP		220.75 m
		BHA	336.67 m

D.P. STANDS — m
D.P. SINGLES — m
KELLY DOWN — m
TOTAL — m
WT. OF DC — 21000 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

BIT NO.	4
SIZE (mm)	215.9
IADC CODE	
MFG.	REED
TYPE	EHP51A
SERIAL NO.	JC1057
JETS (mm)	3 X 11.1
DEPTH OUT (m)	
DEPTH IN (m)	2364
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | TO | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN 0 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2: HOURS RUN 0 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2364.6				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1 LINER SIZE (mm) | PUMP NO. 1 S.P.M. | PUMP NO. 2 LINER SIZE (mm) | PUMP NO. 2 S.P.M.
152 | 152

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY: DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0900	1	22	Rig up Circ. Head
0900	1015	1¼	23	RIH WITH GYRO
1015	1115	1	20	TRY TO GET THROUGH WINDO
1115	1230	1¼	23	POOH WITH GYRO & RIG OUT CIRC HEAD
1230	1415	1¾	22	CHANGE BAILS & ELEVATORS
1415	1600	1¾	6	PUMP Pill & POOH 5 STDS.

TRT KELLY
IN 16.8 m³
OUT 14.5 m³
DIFF 1.1 m³

NOTES: ✓ CROWN SAVER, DEADLINE CLAMP, DEADLINE ANCHOR, BOILERS Blown DOWN 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.3	350°	163 000 daN		

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MILL		1.77 m
	5875		9.70 m
3	HWDP		11.75 m
	JARS		5.36 m
17	HWDP		156.56 m
	BHA		27.63 m

D.P. STANDS 109.94 m
D.P. SINGLES — m
KELLY DOWN 16.82 m
TOTAL 2369.73 m
WT. OF DC 18000 1000 daN
WT. OF STRING 67000 1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	215.9
IADC CODE	
MFG.	SMITH
TYPE	MT44
SERIAL NO.	JW5446
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | TO | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2364.6				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1 LINER SIZE (mm) | PUMP NO. 1 S.P.M. | PUMP NO. 2 LINER SIZE (mm) | PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY: DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1800	2	6	POOH then 35 Std Std of Mule
1800	1900	1	22	Lay Down MWD & MOTOR
1900	2330	4½	6	MU Mill & RIH HWDP- Pick up JARS Rih
2330	2400	½	5	Circ. & Cond.

NOTES: CROWN SAVER, DEADLINE CLAMP, DEADLINE ANCHOR, BRAKES LINKAGE, Boiler Blow down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.4	350	100 000	TRIPPING	BHA

FOLD HERE →

159215

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: AK Ltd Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Cusick

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial CP / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) HS Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial SP / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial CP / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2001 | MONTH 01 | DAY 04

RIG NO. 58

FUEL @ 8:00

RIG 1.63 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	216.7	79.6	BT&C	H40	189	2632.87	5.70	2639.5

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	74.35	HW	76	158	HT38	33	F-1000	EMSCO	254
127	38.07	E3	101	156	I	138	F-1000	EMSCO	254
127	39.02	E3	108	156	V	174	F-800	EMSCO	228.6

TIME-HRS

CODE NO.	1 OPER	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.					4¼		½														3¼	mill window	Gyro	BOP DRILL	HANDLE TOOLS
	DAY					2¾																2¼		3½	¼	2½
	EVE.						5¼																			
	TOTAL					6¾	5¼	½														5½		3½	¼	2½

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES
8	NO. 2 TYPE Derrick F-ME	TmJ - 474.338
8	SCREENS CHANGED ☐ YES ☐ NO	AmJ - 1788
8	TOP / TOP	Accumulator - 36
8	MIDDLE / MIDDLE	
24	BOTTOM / BOTTOM	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	mills		1.73
1	5595 DP	127	9.70
13	HWDP	127	119.75
1	Jar	170	5.36
17	HWDP	127	156.65
	mill BHA		292.59
72	D.P.	STANDS	2064.87
X	D.P.	SINGLES	9.67
	KELLY DOWN		2.45
	TOTAL		0364.68
WT. OF DC	18000	1000 daN	
WT. OF STRING	87000	1000 daN	

BIT RECORD

BIT NO.	Mill
SIZE (mm)	215.9
IADC CODE	
MFG.	Smith
TYPE	millmaster
SERIAL NO.	TM9503
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	2363
TOTAL METRES DRILLED (m)	1.70 m
TOTAL HOURS RUN	6¾

CUTTING STRUCTURE T	T₀	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 13000↑ 11000↓ Sliding
TORQUE AT BOTTOM 19-21000 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	00:00	00:00	05:30
DENSITY kg/m³	1135	1135	1120
FUNNEL VIS. - (S/L)	55	58	59
W.L. (cm³)	4.6	4.4	4.5
pH	10.5	10.5	10.5
PVT m³	64.1	65.8	69.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Biocide	2 pls
Corrosor	2 pls.
Sod. Sulfite	4 SX
Kelzan	3 SX
Bit. Sulph.	224 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1185	1190	1880
	Centrifuge #2		
5	1185	1130	1830

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2363.30	2364.68	1.38	120	1-7

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3300	152	—	152	80

REDUCED PUMP SPEED

2000 @ 2363m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0115	1¼	5	Pump High Vis Sweep To Clean metal Cuttings
0115	0145	½	7	RIG Function Test Pipe Rams 6500 PSI ✓ BSOP
0145	0330	1¾	22	mill Casing Window F/2363.30m - 2363.96m
0330	0515	1¾	5	Work & Ream hole. Pump High Vis Sweep.
0515	0645	1½	22	mill Window F/2363.96m - 2364.68m
0645	0800	1¼	5	Work & Clean hole. Pump High Vis Sweep
				Rotary Torque set @ 80%

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blowdown 3x

DRILLER SIGNATURE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C	100000 daN	Confined Spaces	9594 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	Mill		1.73
1	5595 DP		9.70
13	HWDP		119.75
1	Jar		5.36
17	HWDP		156.65
	BHA		292.59
72	D.P.	STANDS	2064.87
1	D.P.	SINGLES	9.67
	KELLY DOWN		.65
	TOTAL		2367.78
WT. OF DC	18000	1000 daN	
WT. OF STRING	87000	1000 daN	

BIT RECORD

BIT NO.	Mill
SIZE (mm)	215.9
IADC CODE	
MFG.	Smith
TYPE	millmaster
SERIAL NO.	TM9503
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	2362.98
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T	T₀	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 12000↑ 11000↓ Sliding
TORQUE AT BOTTOM 19-21000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	07:30	09:30	11:30
DENSITY kg/m³	1120	1130	1130
FUNNEL VIS. - (S/L)	57	57	56
W.L. (cm³)			
pH	11.0	10.5	10.5
PVT m³	73.2	73.0	72.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph.	5 bags
Kelzan	2 SXS
Sod. Sulfite	3 SXS
Caustic	2 PLS
Biocide	2 PLS
CalCarb	70 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1130	1090	1890

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1130	1110	1870

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2364.68			120	1-7

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3100	152	—	152	80

REDUCED PUMP SPEED

2100 @ 50 @ 3265

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0915	1¼	22	Mill Window 2364.68 - 2367.78.
0915	1015	1	22	Ream & Back Ream Thru Window
1015	1230	2¼	5	Pump Hi Vis Sweep & Circ Out
1230	1330	1	23	Rig up Schlumberger To Gyro Log
1330	1430	1	23	RIH Gyro Log
1430	1600	1½	23	POOH Gyro Log

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes, Linkage, Boiler Blow down 3x

DRILLER SIGNATURE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C	105,000	Working	9624 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	MTR		6.13
1	FLT SUB		1.25
1	NMS SUB		.75
3	NMDC		27.63
1	X/O		.44
1	ORIENT SUB		.56
1	X/O		.36
7	HWDP	65.5	7240
1	JAR		5.36
25	HWDP	21025	21025
	BHA		36.03
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	4
SIZE (mm)	215.9
IADC CODE	
MFG.	REED
TYPE	EHP 51A
SERIAL NO.	K10157
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2364
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T	T₀	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2364.68				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	2¼	6	P.O.O.H. Flown 5.35, 50 SPS.
1615	1630	¼	24	Held BOP Drill, Mock Tripping Well Secure Pipe
1630	2030	4	6	P.O.O.H Flown HW, out of hole
2030	2300	2½	25	Lay Down Mill & M/D Motor & MWD Tools
2300	2400	1	6	R.I.H
				TRIP RECORD
				CAL 10.91 m³
				ACT 11.91 m³
				DIFF 1.00 m³

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor, Boilers Blown 3x

DRILLER SIGNATURE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			

FOLD HERE →

159214

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Ward C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-60HO-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Leach

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR: 2001 | MONTH: 01 | DAY: 03

RIG NO.: 50

FUEL @ 8:00

RIG: 1.97 | BOILER:

WEATHER	
TEMPERATURE	°C
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	216.7	79.61	BT&C	H40	189	3632.29	5.70	2629.5

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	74.35	HW	76	158	4½IF	33	F-1000	Emsco	254
127	38.07	E3	101	156	↓	138	F-1000	Emsco	254
127	29.04	E3	108	156	↓	174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	C/O Winch				
MORN.					3¼	4½																				
DAY						7			1																	
EVE.					3¼	1¾																3½				
TOTAL					6	13½			1													3½				

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 2 TYPE Derrick F.L.G.	TMJ-493013			
8	SCREENS CHANGED ☐ YES ☒ NO	AMJ-663			
8	TOP 140 TOP 175	Accum oil-,36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	Casing Scraper		1.12 m
1	BIT SUB	171	1.07 m
30	HWDP	127	275.95 m
1	X/O	168	.29 m
3	DC	171	27.45 m
1	X/O	100	1.31 m
		BHA =	307.44 m
72	D.P.	STANDS	2065.69 m
—	D.P.	SINGLES	m
	KELLY DOWN	UP	9.57 m
	TOTAL		2363.56 m
WT. OF DC	20000	1000 daN	
WT. OF STRING	96000	1000 daN	

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	JDB
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	—
DEPTH IN (m)	2370
TOTAL METRES DRILLED (m)	SCraper run
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 120000↑ 110000↓ daN
TORQUE AT BOTTOM: 11000 FT-Lbs @ 2082m
FILL ON BOTTOM (m): —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	05:00
DENSITY kg/m³	1180
FUNNEL VIS. - (S/L)	64
W.L. (cm³)	4.5
pH	11.0
P.V.T.m³	67.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN 0 | INTAKE DENSITY | OVERFLOW DENSITY | UNDERFLOW DENSITY

CentriFuge #2: HOURS RUN 0 | INTAKE DENSITY | OVERFLOW DENSITY | UNDERFLOW DENSITY

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5300	152	—	152	75

REDUCED PUMP SPEED: 3000 @ 3363 @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0300	3	6	R.I.H. with Casing Scrapers, Fill Pipe every 1000m
0300	0315	¼	5	Fill Pipe Break Circ. Runin & Tag Fish @ 2363.56m
0315	0615	3	5	Circulate To Clean around TOP of Fish.
				Pump Pill. Blow out Kelly.
0615	0800	1¾	6	P.O.O.H. Flow/@ Rest.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & linkage. Boiler Blown down 3x

HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.6	350°C	100000 daN	Working @ heights	7977 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MILL		1.73 m
	5595	DP127	9.70 m
13	HWDP		119.73 m
	JARS		5.37 m
17	HWDP		156.04 m
			m
			m
			m
			m
			m
			m
58	D.P.	STANDS	1492.66 m
	D.P.	SINGLES	m
	KELLY DOWN	UP	4.35 m
	TOTAL		1781. m
WT. OF DC	18000	1000 daN	
WT. OF STRING	86000	1000 daN	

BIT RECORD

BIT NO.	MILL
SIZE (mm)	215.9
IADC CODE	
MFG.	SMITH
TYPE	MILLMASTER
SERIAL NO.	TM9503
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	2370
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG:
TORQUE AT BOTTOM:
FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:30	20:00
DENSITY kg/m³	1195	1185
FUNNEL VIS. - (S/L)	68	63
W.L. (cm³)		4.5
pH	11.0	11.0
P.V.T.m³	63.4	63.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0930	1½	6	Pack Scraper Hour 305/8 Joints Out of Hole
0930	1300	3½	6	Make up Mill & BHA RIH HWDP
1300	1400	1	9	Slip & Cut 20m Drill Line
1400	1600	2	6	RIH with Mill Double Strap

Wireline Meas 1521m³ Calc -1.64m³ Diff -3.03

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blow down 3x

HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C		Trips	7977 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	5595	DP127	9.70 m
13	HWDP	127	119.73 m
	JARS	170	5.37 m
17	HWDP	127	156.04 m
	mill BHA =		272.5 m
			m
			m
			m
			m
			m
72	D.P.	STANDS	2064.87 m
X	D.P.	SINGLES	9.67 m
	KELLY DOWN	UP	-3.82 m
	TOTAL		2363.30 m
WT. OF DC	18000	1000 daN	
WT. OF STRING	87000	1000 daN	

BIT RECORD

BIT NO.	MILL
SIZE (mm)	215.9
IADC CODE	
MFG.	SMITH
TYPE	MILLMASTER
SERIAL NO.	TM9503
JETS (mm)	
DEPTH OUT (m)	—
DEPTH IN (m)	2363
TOTAL METRES DRILLED (m)	.30
TOTAL HOURS RUN	3½

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 120000↑ 110000↓
TORQUE AT BOTTOM: 21000 FT-Lb
FILL ON BOTTOM (m): —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:00	22:00
DENSITY kg/m³	1185	1155
FUNNEL VIS. - (S/L)	63	53
W.L. (cm³)	4.5	4.5
pH	11.0	10.5
P.V.T.m³	62.5	63.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN 7 | INTAKE DENSITY 1165

CentriFuge #2: HOURS RUN 7 | INTAKE DENSITY | OVERFLOW DENSITY | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370			120	1-2
2363	2363.30		30	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3500	152	—	152	80

REDUCED PUMP SPEED: 1400 @ 1045 @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1745	1¾	6	RIH with Mill Double Strap
				TAG @ 2362 m
1745	2030	2¾	5	Circ & Cond Mud, Run Centrifuges and reduce mud wt to 1100
2030	2400	3½	22	Start cutting window in Casing @ 2362.98 m
				Mill Window From 2362.98m - 2363.30m
				Rotary Torque set @ 80%

Max Hookload Limits
Mast = 335800 daN
D.P. = 174000 daN

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & linkage. Boiler Blown down 3x

HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.9	350°C	90000 daN	Confined Spaces	8622 kPa

FOLD HERE →

159213

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest Etal North Ward C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial CP	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial CP	Initial
(5) Flare Lines Staked	Initial CP	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial CP	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2001 | MONTH 07 | DAY 02

RIG NO.: 58

FUEL @ 8:00

RIG 1.13 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	244.5	216.7	79.61	BT&C	H40	189	2632.97	5.70	2629.5
TUBING OR LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	74.35	HW	76	158	4½IF	33	F-1000	Emsco	254
	127	38.07	E3	101	156	↓	138	F-1000	Emsco	254
	127	29.02	E3	108	156	V	174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Wireline	24 GYRO	25 Kelly hose	26 Handle Tools
	MORN.							4½													½	1	1	4¾	1¼	2
	DAY					4¼																		3¾		
	EVE.						5½	½																		
	TOTAL					4¼	5½	1													½	1	1	8½	1¼	2

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick FLO-C	TonJ-491062			
8	SCREENS CHANGED ☐ YES ☐ NO	AmJ-8739			
8	TOP 140 TOP 175	Accumoil-.36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		1.73 m
1	5545 DP	127	9.70 m
1	X10		.41 m
1	UBHO		.56 m
2	X10		.65 m
3	DC	171	27.43 m
1	X/O		1.31 m
30	HWDP	127	275.85 m
	mill	BHA:	317.64 m
			m
72	D.P.	STANDS	2064.79 m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		2382.43 m
WT. OF DC	21000	1000 daN	
WT. OF STRING	78000	1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	
PVT m3	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3800	152		152	80

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0100	1	23	Change out wireline
0100	0400	3	23	Rig up & Run GYRO
0400	0430	½	20	Orient Whipstock, Whipstock will not lower
				attempted To Orient, Set down 18000 daN
				Whipstock Shear pin rated for 35000 daN.
0430	0615	1¾	23	Pull Wireline out of Drill Pipe.
0615	0645	½	7	R/S Function Annular 1½ secs
0645	0800	1¼	24	Put Kelly hose back on stand Pipe & Top Drive

NOTES √Crown Saver Fastline Clamp Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	350°C		Running GYRO	8364 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Mill		1.73 m
	5595 DP	127	9.70 m
	X/O		.41 m
	UBHO		.56 m
2	X/O		.65 m
3	DC	171	27.43 m
	X/O		1.31 m
30	HWDP	127	275.85 m
	mill/BHA		317.64 m
			m
71	D.P.	STANDS	2064.79 m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		2382.43 m
WT. OF DC	21000	1000 daN	
WT. OF STRING	78000	1000 daN	

BIT RECORD

BIT NO.	Mill 1
SIZE (mm)	215.9
IADC CODE	
MFG.	SMITH
TYPE	MILLMASTER
SERIAL NO.	TM9503
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	2370
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	4/6000↓ 12000↑
TORQUE AT BOTTOM	7-8000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
CalCarb	112 3x5

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3800	152		152	80

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1015	2¼	5	Circ & Cond & work Whip.
1015	1400	3¼	23	RIH Gyro Run
1400	1430	½	23	Work Whipstock - Attempt To Go Down
				No Sucess
1430	1600	1½	5	Circ & Mix x Fill.

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	350		Setting Whip	8364 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.35 m
1	Casing Scraper		1.12 m
1	BIT SUB		1.07 m
30	HWDP		275.85 m
1	X/O		.29 m
3	DC		27.45 m
1	X/O		1.31 m
			m
	BHA:		307.44 m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	Hughes
TYPE	OD8
SERIAL NO.	F11226
JETS (mm)	3x11 x1
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	T.P. Record	STRAP
DENSITY kg/m³	mud - 1490	DP: 2065.69
FUNNEL VIS. - (S/L)	can - 11.5#	HWDP: 303.40
W.L. (cm³)	ASP - 2.66	
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1630	½	6	Pump Pill - Blow Top Drive
1630	2130	5	6	Pooh Flow √ every 9 stds while strap
				Lost Whipstock
2130	2200	½	7	R/S Function Blind Rams 6 sec/cls
2200	2400	2	25	Pickup & measure Scraper Assembly, make up BHA

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	350°C		Working height	8364 KPA

FOLD HERE →

159212

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Lvrd C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	Initial
(5) Motor Kills checked	Initial	

YEAR 2001 | MONTH 01 | DAY 01

RIG NO. 58

FUEL @ 8:00

RIG 142 | BOILER

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	216.7	79.61	BTC	HCL	189	2632.87	5.70	2649.5

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	79.35	HW	76	158	4½IF	33	F-1000	Emsco	254
127	38.07	E3	101	156	↓	138	F-1000	Emsco	254
127	39.02	E2	108	156	↓	174	F-800	Emsco	208.6

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Wire line.	24 Hauling Tools	25 Fast Bridge Plug Retrieval	26 GYRO
	MORN.						4									1							½	2½		4
	DAY					17½	2¾															¼			7¾	
	EVE.																									
	TOTAL					17½	6¾									1						¼	½	2¾	7¾	4

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 1 DERRICK F.H.C.	Tri-J-4899933			
8	SCREENS CHANGED ☐ YES ☑ NO	Am-J-7606			
8	TOP 140 TOP 175	Accumair-.36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MW		1.73 m
1	5595 DP 127		9.70 m
1	X/O		.41 m
1	UBHO SUB		.56 m
2	X/O		.65 m
3	DC	171	27.43 m
1	X/O		1.31 m
30	HWDP	127	275.85 m
	Drill BHA = 317.64		m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC	21000		1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH
PVT = 3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00 00	00 30	½	22	Rig out wireline unit.
00 30	00 45	¼	6	R.I.H. 6 Stands of HWDP
00 45	01 45	1	15	Break Circ, Circulate out air, Pressure Test Bridge Plug To 7000 kPa For 15 min, Blow Kelly
01 45	02 00	¼	6	P.O.O.H.
02 00	04 30	2½	23	Make up Whip stock Assembly.
04 30	08 00	3½	6	R.I.H. with Whip stock, double stand P.U.

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
Barry Fitch	8	10.5	350°C		Running Whip Stock	8360 kPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MW		1.73 m
	5595	127	9.70 m
	X/O		.41 m
	UBHO SUB		.56 m
2	X/O		.65 m
3	DC	171	27.43 m
	X/O		1.31 m
30	HWDP		275.85 m
	Drill BHA = 317.64		m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC	21000		1000 daN
WT. OF STRING	78000		1000 daN

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 24000↑ 4000↓
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2367				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3800	152		152	80

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1045	2¾	6	RIH WITH WHIP STOCK
1045	1200	1¼	5	CIRC @ CSG
1200	1330	1½	25	Rig To Run Gyro Survey
1330	1600	2½	25	RIH Gyro & SET WHIP (Lined drops out of Schlumberger Sheave in Derrick when on Same)

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	350°C		Milling	8360

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MW		1.73 m
1	5595 DP	127	9.70 m
1	X/O		.41 m
1	UBHO		.56 m
2	X/O		.65 m
3	DC	171	27.43 m
1	X/O		1.31 m
30	HWDP	127	275.85 m
	Drill BHA = 317.64		m
72	D.P.	STANDS	2064.79 m
1	D.P.	SINGLES	— m
	KELLY DOWN		m
	TOTAL		3382.43 m
WT. OF DC	21000		1000 daN
WT. OF STRING	78000		1000 daN

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2370				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1945	3¾	24	Try To Release Line From Upper Sheave.
1945	2000	¼	21	Held Safety meeting Prior To Cutting wireline
2000	2400	4	24	Cut wireline, Thaw pipe to Pull out wireline. Splice & Pull Out Wireline, Lay down Gyro Change out wireline.

Max Hookload limits
Hoist = 235800 daN
D.P. = 163000 daN

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
Barry Fitch	8	10.5	350°C		Cutting Wireline	8360 kPA

FOLD HERE →

159211

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-60HO-12330-0 | UNIQUE ID: 300-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Mike Culen MO | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial SC	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial SC	Initial
(5) Flare Lines Staked	Initial SC	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial SC	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 12 | DAY 31

RIG NO. 58

FUEL @ 8:00

RIG 174 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	216.7	77.6	BT&C	H40	189	2632.87	5.70	2639.5

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT.O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	74.35	HW	76	158	4½IF	33	F-1000	EMSCO	254
127	38.07	E3	101	156	↓	138	F-1000	EMSCO	254
127	29.02	E2	108	156	↓	174	F-800	EMSCO	228.6

TIME-HRS

CODE NO.	OPER	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG	22 Wire line	23 DAYWORK RENTALS	24	25	26
	MORN.					½	6¼	¼																5			
	DAY						3																5	3			
	EVE.																						5				
	TOTAL					1½	9¼	¼															5	8			

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.L.G.	Tmf-488671			
8	SCREENS CHANGED ☐ YES ☑ NO	Amf-6344			
8	TOP 140 TOP 175	Accum 02-.36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D./mm	LENGTH
1			.25 m
1	Stabilizer		1.13 m
1	B/S		1.22 m
3	DC	171	27.43 m
1	X/O		1.31 m
6	HWDP		55.80 m
1	Jar		5.36 m
29	HWDP		269.95 m
			m
		Run:	312.59 m
			m
73	D.P.	STANDS	m
1	D.P.	SINGLES	2103.22 m
	KELLY DOWN		m
	TOTAL		2415.75 m
WT. OF DC		1000 daN	90000
WT. OF STRING		1000 daN	89000

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	JDS
SERIAL NO.	F11326
JETS (mm)	3x11,1
DEPTH OUT (m)	—
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	Cosing/Scraper run
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 2000 ↑ 1000 ↓

TORQUE AT BOTTOM: 11000 FT/Lb

FILL ON BOTTOM (m): —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	06:00
DENSITY kg/m³	1120
FUNNEL VIS. - (S/L)	78
W.L. (cm³)	4.5
pH	10.5
PVT m3	74.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
CalCarb	112sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D R&R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730			—	—

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5700	152	—	152	75

REDUCED PUMP SPEED

3100 @ 34.5 m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Fidyk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0430	4½	6	R.I.H., Fill Pipe every 600m, Stop in To 2400m
0430	0600	1½	5	Circulate & Work Pipe Clean hole.
0600	0615	¼	7	R/S Function Bottom, Pipe Rams 6500/15
0615	0800	1¾	6	P.O.O.H. With Casing Scraper, Stop out Flow @ 10 Stds.

NOTES: √Crown Saver, Footline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blowdown 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C	105000 daN	Tripping	8335 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	Baroid Plug #1 set @ 2730 m KB.
IADC CODE	Cement Retainer #2 set @ 2370 m KB.
MFG.	Cement Top 2414 m KB
TYPE	Bridge Plug #2 set @ 2370 m KB.
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	2622 m KB.
DENSITY kg/m³	1160 +1.6% RETARDER EXTENDED
FUNNEL VIS. - (S/L)	
W.L. (cm³)	2370 m KB.
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D R&R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Fidyk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1100	3	6	Tooth Flow Every 10 STDS @ 73 STDS
1100	1145	¾	23	Rig up Schlum. Dump Barrels
1145	1245	1	23	Rig unin Dump Barrels
1245	1400	1¼	23	RE-Run #1 Dump Barrel
1400	1600	2	23	Clear Sfk & Rig for Run #3
				RIH STRAP 2416.54m Tally = 2415.14
				Hole Full Mud 1030 Calc 836 Diff 1344

NOTES: √Crown Saver, Footline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blow down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°		Schlum Dump Tank	8335 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	
PVT m3	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D R&R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Fidyk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1730	1½	23	RIH Run #3 & Dump
1730	1800	½	23	M/U & Rig To Run #4.
1800	1900	1	23	RIH Run #4
1900	2130	2½	23	Rig To Run Gauge Rings, Pull out.
2130	2400	2½	23	Rig up & Run Packer, Pull out of hole, Rig out Wireline Set packer @ 2370 m

NOTES: √Crown Saver, Footline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blow down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°		Using Wireline	8335 KPA

FOLD HERE →

140100

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Laval C31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300-C31-6040-12330-70	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS — OPR. / R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 12 | DAY 30

RIG NO. 30

FUEL @ 8:00

RIG 1.89 | BOILER

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	216.7	79.61	ST&C	H40	189	2632.87	5.70	2629.5

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	74.35	HW	76	158	4½IF	33	F-1000	Emsco	559
127	38.07	E3	101	156		138	F-1000	Emsco	254
127	29.09	E2	108	156	V	174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Bottom Hole Assy	24 Ream Hole	25 Work Tools	26 Pick Test
MORN.								½				2											5½			
DAY																							1	7		
EVE.							2																	4	1½	½
TOTAL							2	½				2											6½	11	1½	½

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 1 TYPE Derrick Fin C.	Tnd - 487198			
8	SCREENS CHANGED ☐ YES ☒ NO	AmJ - 4869			
8	TOP 140 TOP 175	Accumair - 36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1			.25
1	Bit Sub		1.07
1	HWDP		9.36
1	3PT RM		1.60
1	HWDP		9.39
1	3PT RM		1.91
6	HWDP		56.28
1	JAR		5.36
33	HWDP		310.33
		BHA =	395.44
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	00:00
DENSITY kg/m³	1160
FUNNEL VIS. - (S/L)	78
W.L. (cm³)	4.6
pH	11.0
Pvt m3	67.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Garry Pitruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0000	0200	2	11
0200	0230	½	7
0230	0800	5½	22

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Pull out of hole w/Logs, lay down Tools
Rig out loggers.
R/S Function TOP Pipe Rams 6 sec/cs
Wait on Cased hole logging Truck & Packers.
Max Hookload limits
Blast - 335800 daN
D.P. - 185000 daN

NOTES: √ Crown Saver Fastline Clear Deadline Anchor Brakes & Linkage.
Boiler Blown down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C		Hoisting	8493 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	1 sx
Soda Ash	1 sx
Lignite	1 sx
Gel	40 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Dale Burgess

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0800	0900	1	22
0900	1015	1¼	23
1015	1230	2¼	23
1230			23
	1315	¾	
1315	1600	2¾	23

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

WAIT ON CASED HOLE LOGGING TRUCK.
RIG UP CASED HOLE LOGGING TRUCK
GAUGE RING & COLLAR LOCATOR RUN
RIG UP TO RIH BTM PACKER.
SAFETY MTG WITH ALL ON LOCATION PERSONNEL.
RIH WITH BTM PACKER.

NOTES: √ Crown Saver - Fastline Clear - Deadline Anchor Brakes Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Sodium Plug Set	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1			.25
1	Bit Sub		1.12
1	8.5		1.22
3	DC		27.43
1	X10		1.31
6	HWDP		55.88
1	Jar		5.36
34	HWDP		317.95
		BHA =	410.93
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC	200.00		1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	
Pvt m3	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Harry Trunk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	1645	¾	23
1645	1700	¼	23
1700	1730	½	6
1730	1800	½	23
1800	1830	½	6
1830	2130	3	23
2130	2300	1½	24
2300	2400	1	6

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

POOH WITH PACKER SETTER
RIG DOWN Schlum.
RIH 65JTS HWDP
PRESS. TEST PACKER 7000KPA
POOH 65JTS HWDP
RIG TO Run Schlum DumpBailer.
Rig out Wireline Truck
Mousehole Cut & Slipped 38A, P/U 3.1/2 mm D.C.
R.I.H.

NOTES: √ Crown Saver Fastline Clear Deadline Anchor Brakes & Linkage.
Boiler Blown down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C		TESTING.	8493 KPA

FOLD HERE →

140099

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest etal North Island C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: AK-1a Drilling LTD

SURFACE LOCATION: 300-C31-6040-19330-0 | UNIQUE ID.: 300-C31-6040-19330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Shuck

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 12 | DAY 27

RIG NO. 58

FUEL @ 8:00

RIG 1.25 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	244.5	216.7	72.61	BTC	H40	189	2698	5.70	2695
TUBING OR LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	74.35	H.W.	76	158	4½IF	33	F-1000	Emsco	254
	127	38.07	E	101	156	↓	138	F-1000	Emsco	254
	127	39.02	E	108	156	↓	174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			5½		2	½																			
DAY			1½		3¼	3¾																			
EVE.						3						5													
TOTAL			7		5¼	6¾						5													

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Brandt	G.E.	T&T 487120		
8	SCREENS CHANGED ☑ YES ☐ NO		AMT 4793		
8	TOP 140	TOP 175	Accum oil .36		
8	MIDDLE 140	MIDDLE 175			
24	BOTTOM 140	BOTTOM 175			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	B/S		1.07 m
1	HWDP		9.36 m
1	3PT RM		1.60 m
1	HWDP		9.39 m
1	3PT RM		1.91 m
6	HWDP		56.28 m
1	Jar		5.36 m
23	HWDP		210.22 m
			m
		BHA:	295.44 m
85	D.P.	STANDS	2438.34 m
—	D.P.	SINGLES	— m
	KELLY DOWN		3.03 m
	TOTAL		2730.75 m
WT. OF DC	18000	1000 daN	
WT. OF STRING	98000	1000 daN	

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	Hughes
TYPE	JDB
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 6000↑ 6000↓ Rotating.

TORQUE AT BOTTOM 13000 FT/Lb

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	01:30	03:00	06:00
DENSITY kg/m³	1160	1160	1160
FUNNEL VIS. - (S/L)	70	70	69
W.L. (cm³)	4.5	4.5	4.6
pH	11.0	11.0	11.0
PVT m³	87.6	86.3	85.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				
3665	2730	SS	60	1-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6000	152	-	152	75

Choke

REDUCED PUMP SPEED

4100 @ 2730 @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Dave Shuck

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0200	2	5	Circulate Bottoms up, Circulate hole clean.
0200	0230	½	6	P.O.O.H. TO 2600m, R.I.H. To 2665m
0230	0800	5½	3	Ream F/2665m - 2730m
				Maximum Hook load limits
				MOST = 235800 daN
				D.P. = 173000 daN

NOTES: Crown Saver, Footline Clamp Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C	125000 daN	Loader Operation	8443 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			25 m
	B/S		1.07 m
	HWDP		9.36 m
	3PT RM		1.60 m
	HWDP		37.39 m
	3PT RM		1.91 m
6	HWDP		56.28 m
	JAR		5.36 m
23	HWDP		210.22 m
	SHA		26.44 m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		3.03 m
	TOTAL		2730.75 m
WT. OF DC	18000	1000 daN	
WT. OF STRING	98000	1000 daN	

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	Hughes
TYPE	JDB
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG Broke 20000# ROTATE

TORQUE AT BOTTOM 7000/18000 ft/lbs 20A

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	08:00	10:00	
DENSITY kg/m³	1165	1160	
FUNNEL VIS. - (S/L)	68	76	
W.L. (cm³)	4.5	4.5	
pH	11.0	11.0	
PVT m³	84.1	83.5	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
KelZan	4 sks
CaCarb	112 sks

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				
2720	2730	10	60	1-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6700	152		152	75

REDUCED PUMP SPEED

3250 @ 2730 @ 60

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Dave Shuck

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0730	½	3	Ream
0730	1045	1½	5	Circ & Cond mud
1045	1145	1	6	Pooh 2730m - 2619m
1145	1315	1½	5	Circ & Cond mud
1315	1400	¾	6	Pooh 2730 - 2597m
1400	1430	½	5	Pump Pill - Blow Top Drive
1430	1600	1½	6	Pooh 2597m - 1459m
				Flow 1852m
				Hole Fill Meas 11 Actual .46 - Diff. -.5

NOTES: Check Crown Saver - Footline Clamp Deadline Anchor Brakes Linkage Boiler Blow down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C	125 000		

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	Bit Sub		1.07 m
1	HWDP		9.36 m
1	3PT RM		1.60 m
1	HWDP		9.39 m
1	3PT RM		1.91 m
6	HWDP		56.28 m
1	Jar		5.36 m
23	HWDP		210.22 m
			m
			296.44 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	JDB
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
3	3	WT	A	E	I	NO	LOG	

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			
PVT m³			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

Choke

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Dave Shuck

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1900	3	6	Pooh 1459m -
				Flow 1017m 291m. Fluid out of hole.
1900	2400	5	11	Rig up loggers & Log hole
				Run #1, DIP meter, Dipole Sonic, Caliper
				H.T Bridge @ 2670m, Log From 2610m - 2100m
				Pull out of hole with logs.
				Hole Fill Meas - 1337m³ - Cal 1261m³
				Diff .76 m³

NOTES: Crown Saver, Footline Clamp, Deadline Anchor Brakes & Linkage. Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.4	350°C		Logging	8493 kPa

FOLD HERE →

140098

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Laird C-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil LTD	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300 C31 L040 12330 C	300 C31 L040 12330 C
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**
Doug Talley, Colleen	Lonnie Lauck

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2006 MONTH 12 DAY 28

RIG NO. 58

FUEL @ 8:00

RIG 1.00 BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.5	315.4	101.2	BTEC	K55	55	711.20	6.47	710
	244.5	216.7	77.62	BTSC	HCL	187	2632.87	5.70	2629.5

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	74.35	HWDP	76	158	4½ IF	33	F-1000	EMSCO	356
	127	38.07	E75	101	156	↓	136	F-1000	EMSCO	356
	127	29.02	E75	108	156		174	F-800	EMSCO	279.4

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.			4		1/2	3½																			
	DAY			7¼				¼																		
	EVE.			7½				½																		
	TOTAL			19¼		½	3½	¾																		

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO.	TYPE
2	Derrick FLC
SCREENS CHANGED	☑ YES ☐ NO
TOP 140	TOP 175
MIDDLE 140	MIDDLE 175
BOTTOM 140	BOTTOM 175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 483902			
AMJ 1575			
Accum Cil 36			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	BIT SUB		1.07 m
1	HWDP		9.36 m
1	3PT RM		1.60 m
1	HWDP		9.39 m
1	3PT RM		1.91 m
6	HWDP		56.28 m
1	JAR		5.36 m
23	HWDP		210.92 m
		RHA	25.14 m
83	D.P.	STANDS	2380.57 m
	D.P.	SINGLES	m
	KELLY DOWN		16.01 m
	TOTAL		2730.00 m
WT. OF DC		1000 daN	18000
WT. OF STRING		1000 daN	97000

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	JDB
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5 - 20000 ROTATING
TORQUE AT BOTTOM	11 - 16000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	05:00	06:00
DENSITY kg/m³	1125	1125
FUNNEL VIS. - (S/L)	54	57
W.L. (cm³)	5.4	5.5
pH	10.0	10.0
P.V.T	89.9	89.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	4 SX
XANVIS	1 SX
Kelzan	5 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'D CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				1-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3500	152		152	60

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0330	3½	6	KJH FRONT TO Km-2628m FILL PITS EVERY HR
0330	0400	½	5	BRK CIRC. & WASH FROM 2628m - 2640m
0400	0800	4	3	REAM 2640m - 2660m

NOTES

CROWN SAVER, FLOATLINE CLAMP, DEADLINE ANCHOR

BOILERS BLOWN DOWN 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	145 000 daN		9395 kpa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	B/S		1.07 m
1	HWDP		9.36 m
1	3PT RM		1.60 m
1	HWDP		9.39 m
1	3PT RM		1.91 m
6	HWDP		56.28 m
1	JAR		5.36 m
23	HWDP		210.92 m
		BHA	295.49 m
83	D.P.	STANDS	2380.57 m
	D.P.	SINGLES	9.64 m
	KELLY DOWN		16.01 m
	TOTAL		2685 m
WT. OF DC		1000 daN	18000
WT. OF STRING		1000 daN	97000

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	JDB
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	15000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	14:30
DENSITY kg/m³	1125	1130	1130
FUNNEL VIS. - (S/L)	67	63	65
W.L. (cm³)	4.5	3.8	4.0
pH	11.0	11.0	10.5
P.V.T.	87.65	87.0	86.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
KELZAN	5 SX
Starpak	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'D CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				
2660	2665	25	60	1/6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3500	152		152	75

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1300	5	3	Ream 2660m-2675m
1300	1315	¼	7	RIS, Function Annular 15 sec/cl's
1315	1600	2¾	3	Ream F/2675m 2685m

NOTES

Crown Saver, Floatline Clamp, Deadline Anchor, Brakes & Linkage. Boilers Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C	115 000 daN	General maintenance	9395 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
	B/S		1.07 m
2nd	HWDP		9.36 m
	3PT RMR		1.60 m
1	HWDP		9.39 m
1	3PT RMR		1.91 m
6	HWDP		56.28 m
1	JAR		5.36 m
23	HWDP		210.92 m
		BHA	295.49 m
85	D.P.	STANDS	2438.34 m
	D.P.	SINGLES	m
	KELLY DOWN		16.01 m
	TOTAL		2730.75 m
WT. OF DC		1000 daN	18000
WT. OF STRING		1000 daN	97000

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	JDB
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5 - 15000 KELLY
TORQUE AT BOTTOM	7 - 15000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	20:30	22:30
DENSITY kg/m³	1150	1155	1160
FUNNEL VIS. - (S/L)	75	74	74
W.L. (cm³)	5.0	5.0	5.0
pH	10.5	10.5	10.5
P.V.T.	85.1	84.9	83.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gypsum	3 SKS
Lime	2 SKS
Caustic	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'D CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2685	2730	45	60	1-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6500	152		152	75

REDUCED PUMP SPEED

5200 @ 173 spm @ 60

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2330	7½	3	REAM 2685m - 2730m
2330	2400	½	7	RIS Function Top Pipe Rams 6 sec/cl's, ✓BSPP

NOTES

Floatline Crown Saver, Floatline Clamp, Deadline Anchor, Brakes & Linkage. Boilers Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	130000	REAM	9395 KPA

FOLD HERE →

140097

LICENCE NO.: H20

WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest Oil Ltd

CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 300-C 31-I/094-H/094-O

UNIQUE ID.: 300-C 31-I/094-H/094-O

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HFS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 12 | DAY 27

RIG NO. 56

FUEL @ 8:00

RIG 1.37 | BOILER

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.9	107.2	BTRC	K55	55	711.70	6.47	710
	244.5	216.7	77.12	BTRC	N80	187	2632.87	5.70	2629.5

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
	127	74.35	H40	76	158	4½ IF	33
	127	38.27	E75	101	168	↓	136
	127	29.62	E75	105	154		174

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
E-1100	Emsco	254
F-1000	Emsco	254
F-500	Emsco	305.1

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.		4¼								½												TIGHT HOLE	Wiper Trip			
	DAY			1		3 ½																	2¾				
	EVE.					1¾ 6½				3¼													3½				
	TOTAL		4¼	1		3¼ 7				3¼	½												6¼		½		

TOTALS

24	

SHALE SHAKER(S)

NO. 2 | TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP		TOP	
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMS 4E2227			
AMJ 10267			
Accuni Oil .36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	Motor		6.02 m
1	Flt Sub		.75 m
1	Res Sub		.75 m
3	NMDC		27.63 m
2	X/O		1.27 m
1	S/S		3.49 m
6	HWDP		56.28 m
1	JAR		5.36 m
25	HWDP		228.97 m
		BHA:	330.77 m
84	D.P.	STANDS	2401.45 m
	D.P.	SINGLES	m
	KELLY DOWN		9.47 m
	TOTAL		2730.75 m
WT. OF DC		13000	1000 daN
WT. OF STRING		101000	1000 daN

BIT RECORD

BIT NO.	2RR
SIZE (mm)	215.9
IADC CODE	537
MFG.	HUGHES
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2637
TOTAL METRES DRILLED (m)	93
TOTAL HOURS RUN	32

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG 25000↑ 15000↓ Sliding

TORQUE AT BOTTOM 10000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1125	1125	1125
FUNNEL VIS. - (S/L)	52	51	51
W.L. (cm³)	4.5	4.5	4.5
pH	11.0	11.0	11.0
	P.V.T	74.9	75.2	75.

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Cosan X	1 pl
Biocide	1 pl
Defoamer	1 pl

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2717	2730	13	30 MTR 85	15 25/26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8100	152		152	98

REDUCED PUMP SPEED

3400 @ 2720m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2706.85	12.5	2.8
2716.56	13.6	3.0

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0115	1¼	2	DRILL ROTATE 2717m - 2721m
0115	0130	¼	10	SURVEY
0130	0500	3½	2	DRILL SLIDE 2721m - 2727m ROTATE 2727m - 2730m
0500	0515	¼	10	SURVEY
0515	0800	2¾	22	WORK TIGHT HOLE (PACKED OFF)

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor

Boilers blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
6	10.5	350	150 000 daN		9345 kPa

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1130	3½	22	Work Tight hole, Back Ream TO 2697m
1130	1330	1	5	Break Circulation, Circulate & Clean hole.
1330	1530	2	3	Back Ream 2696m - 2651m, Pull up to 2592m
1530	1600	½	6	Flow ✓ P.O.O.H., Flow @ 10 stds

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brake & Linkage

Boilers blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	145000 daN	Working Tight hole.	6816 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	Motor	160	6.02 m
1	Float Sub	163	.75 m
1	Res Sub	166	.75 m
3	NMDC	161	27.63 m
2	X/O	165	1.27 m
1	S/S	170	3.49 m
6	HWDP	127	56.28 m
1	Jar	179	5.36 m
25	HWDP	132	228.97 m
		BHA:	330.77 m
84	D.P.	STANDS	2401.45 m
	D.P.	SINGLES	m
	KELLY DOWN		9.47 m
	TOTAL		2730.75 m
WT. OF DC		23000	1000 daN
WT. OF STRING		101000	1000 daN

BIT RECORD

BIT NO.	2RR
SIZE (mm)	215.9
IADC CODE	537
MFG.	HUGHES
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3X11.1
DEPTH OUT (m)	2730
DEPTH IN (m)	2637
TOTAL METRES DRILLED (m)	93
TOTAL HOURS RUN	32

CUTTING STRUCTURE: T_i 3 | T_o 3 | MDC CT | LOC 6 | B E | Gage I | ODC WT | Reason Pulled TD | Total Run m/hr 2.9

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	
	PVT n.a

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
CaCl2 Flk	112 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2730				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2000	4	6	P.O.O.H., Flow @ 40 stds, @ HWDP
2000	2030	½	23	Lay Down HWDP & Motor
2030	2300	2½	6	M/U BHA & RIH TO 706m
2300	2315	¼	5	Fill Pipe & Brk. Circ
2315	2400	¾	9	Slip & Cut 20m

TRIP RECORD

CAL 12.91 m³

ACT 14.83 m³

DIFF 1.92 m³

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor

Boilers blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			9345 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	Bit Sub	171	1.07 m
1	NMDC	157	9.36 m
1	3PT Rm	151	1.40 m
1	HWDP	127	9.37 m
1	2PT Rm	178	1.41 m
6	HWDP	127	56.28 m
1	Jar	170	5.36 m
13	HWDP	127	120.92 m
		BHA	215.44 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		16000	1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	3RR
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	J08
SERIAL NO.	F11226
JETS (mm)	3X11.1
DEPTH OUT (m)	
DEPTH IN (m)	2730
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	1185
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

FOLD HERE →

140096

LICENCE NO.	WELL NAME AND NO.
1900	Canadian Forest et al North Head C-31
OPERATOR	**CONTRACTOR**
Canadian Forest Oil Ltd	Zeta Drilling Ltd
SURFACE LOCATION	**UNIQUE ID**
300 C31 1040 123700	300 C31 1040 123300
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR	MONTH	DAY
2000	12	26

RIG NO. 56

FUEL @ 8:00

RIG 1.71 BOILER

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.4	101.2	BTC	K55	55	711.20	6.49	711
	244.5	216.7	71.02	BTC	H40	159	263287	6.70	262905

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	74.35	HW	76	156	4½ IF	33	F-1000	Emsco	254
127	58.07	E3	101	152	↓	136	F-1000	Emsco	254
127	53.02	E2	108	146	↓	174	F-500	Emsco	228.6

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 BOP DRILL	24	25	26
	MORN.		6¾					¼			3/4											¼				
	DAY		7¼					¼			½														
	EVE.		7¼								3/4														
	TOTAL		21¼				½				2											¼			

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO.	TYPE
2	Derrick FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP	140	TOP	175
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 480372			
AMJ E412			
Accom Oil .36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	PDC	165	.35
1	FLT SUB	163	6.05
1	RES. SUB	166	.75
3	NMDC	161	27.63
2	X/O	165	1.27
1	S/S	170	3.49
6	HWDP	127	56.28
1	JAR	170	5.36
25	HWDP	127	226.77
	BHA=		330.77
82	D.P.	STANDS	2351.92
—	D.P.	SINGLES	—
	KELLY DOWN		7.89
	TOTAL		2674.80

WT. OF DC 23000 (1000 daN)

WT. OF STRING 100000 (1000 daN)

BIT RECORD

BIT NO.	2RR
SIZE (mm)	215.9
IADC CODE	537
MFG.	HUGHES
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3x11.1
DEPTH OUT (m)	—
DEPTH IN (m)	2637
TOTAL METRES DRILLED (m)	37
TOTAL HOURS RUN	12¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 20000↑ 15000↓ SLIGHT

TORQUE AT BOTTOM 9000 FT/LBS

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE	☒ WATER BASED	☐ OIL BASED	
TIME	02:00	04:00	06:00
DENSITY kg/m³	1110	1110	1110
FUNNEL VIS. - (S/L)	53	50	50
W.L. (cm³)	5.5	5.5	5.5
pH	11.0	11.0	10.5
P.V.T	87.3	87.4	87.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	2 sx
Lime	2 sx
Biocide	6 pl
Carbonox	2 pl
Kelzan	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
C			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
C			

MORNING TOUR

METRES DRILLED

FROM	TO	DRD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2653	2674	21	30 MTR 85	12/16 25/28

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8100	152		152	90

REDUCED PUMP SPEED

3300 @ 2445 @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2640.01	6.9	318.5
2649.15	7.5	326.5
2659.30	7.8	333.8

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0015	¼	7	R/S FUNCTION TOP RAM Ram's 9sec C's
0015	0030	¼	2	ROTATE DRILL 2653m - 2654m
0030	0045	¼	10	SURVEY
0045	0345	3	2	SLIDE DRILL 2654m - 2659m ROTATE 2659 - 2663
0345	0400	¼	10	SURVEY
0400	0630	2½	2	DRILL SLIDE 2663m - 2670m ROTATE 2670m - 2672m
0630	0645	¼	22	BOP DRILL WHILE DRILLING WELL SECURE 1 min
0645	0715	½	2	DRILL ROTATE 2672m - 2673m
0715	0730	¼	10	Survey @ 2659.30
0730	0800	½	2	DRILL SLIDE 2673m - 2674.80m

NOTES: ✓CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR
BOILERS BLOWN DOWN 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	11.5	350°	120000 daN		9752 kpa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	PDC	165	.35
1	FLT SUB	163	6.05
1	RES SUB	166	.75
3	NMDC	161	27.63
2	X/O	165	1.27
1	S/S	170	3.49
6	HWDP	127	56.28
1	Jar	170	5.36
25	HWDP	127	226.97
	BHA:		330.77
82	D.P.	STANDS	
X3	D.P.	SINGLES	2370.91
	KELLY DOWN		5.28
	TOTAL		2696.40

WT. OF DC 23000 (1000 daN)

WT. OF STRING 100000 (1000 daN)

BIT RECORD

BIT NO.	2RR
SIZE (mm)	215.9
IADC CODE	537
MFG.	HUGHES
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3x11.1
DEPTH OUT (m)	—
DEPTH IN (m)	2637
TOTAL METRES DRILLED (m)	59
TOTAL HOURS RUN	20

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 20000↑ 15000↓ SLIGHT

TORQUE AT BOTTOM 10000 FT/LBS

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE	☒ WATER BASED	☐ OIL BASED	
TIME	09:30	12:00	15:30
DENSITY kg/m³	1110	1115	1115
FUNNEL VIS. - (S/L)	53	50	51
W.L. (cm³)	5.5	4.0	4.4
pH	10.5	10.5	10.5
P.V.T.	92.1	92.0	92.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
KANV.S	25k.
Carbonox	1 pl
Biocide	1 pl
XL-Defoamer	2 pl
Caustic	1 sk.
Lime	1 sk

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

DAY TOUR

METRES DRILLED

FROM	TO	DRD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2674	2676	22	30 MTR 35	28 18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8100	152	—	150	90

REDUCED PUMP SPEED

3600 @ 2682m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2668.69	7.9	340.3
2678.42	8.6	349.6

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1015	2¼	2	Drill Slide F/2674.80m - 2679m Rotate 2679-2682
1015	1030	¼	10	Survey @ 2668.69m
1030	1045	¼	7	R/S Function Bottom Pipe Rams Check ✓ 25 PP
1045	1445	4	2	Drill Slide 7.5m F/2682m - 2689m Rotate 2689-2696
1445	1500	¼	10	Survey @ 2678.42m
1500	1600	1	2	Drill Slide 2692.40m - 2696.40m

NOTES: ✓CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR BROKE OUT LADDER
BOILERS BLOWN DOWN 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	11.5	350°	130000 daN	Connections	9653 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	PDC	165	.35
1	FLT SUB	163	6.05
1	RES SUB	166	.75
3	NMDC	161	27.63
2	X/O	165	1.27
1	S/S	170	3.49
6	NMDP	127	56.28
1	JAR	170	5.36
25	HWDP	127	226.97
	BHA=		330.77
84	D.P.	STANDS	2409.45
	D.P.	SINGLES	
	KELLY DOWN		23.91
	TOTAL		2717

WT. OF DC 23000 (1000 daN)

WT. OF STRING 100000 (1000 daN)

BIT RECORD

BIT NO.	2RR
SIZE (mm)	215.9
IADC CODE	537
MFG.	HUGHES
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3x16
DEPTH OUT (m)	
DEPTH IN (m)	2637
TOTAL METRES DRILLED (m)	80
TOTAL HOURS RUN	27¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 20000↑ 15000↓ SLIGHT

TORQUE AT BOTTOM 9-11000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE	☒ WATER BASED	☐ OIL BASED	
TIME	18:00	20:00	23:00
DENSITY kg/m³	1120	1125	1125
FUNNEL VIS. - (S/L)	51	52	52
W.L. (cm³)	4.5	4.5	4.5
pH	10.5	11.0	11.0
P.V.T. m³	93.4	94.3	94.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DRD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2696	2717	21	30 MTR 85	18 25/28

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8100	152		152	90

REDUCED PUMP SPEED

3400 @ 2709m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2688.08	9.7	355.8
2697.34	11.3	1.2

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1730	1½	2	Drill Slide F/2696.40m - 2698.40m Rotate 2698-2701.7
1730	1800	½	10	Survey @ 2688.08m
1800	2115	3¼	2	Drill Slide 2701.7m - 2707m Rotate 2707m - 2711m
2115	2130	¼	10	SURVEY
2130	2400	2½	2	Drill Slide 2711m - 2717m

NOTES: ✓CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR
BOILERS BLOWN DOWN 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	350	125000 daN		9575 kpa

FOLD HERE →

140095

LICENCE NO.	WELL NAME AND NO.
1900	Canadian Forest et al North Lard c-31
OPERATOR	**CONTRACTOR**
Canadian Forest Oil Ltd	Akita Drilling Ltd
SURFACE LOCATION	**UNIQUE ID.**
300 c-31 fc40/12330 c	300 c31 fc40 12330 c
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
Greg Abbey, Clerk	

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H2S Signs Posted (if required)	Initial	Initial
(4) Well Licence & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR	MONTH	DAY
2000	12	25

RIG NO. 56

FUEL @ 8:00

RIG 2003 BOILER

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.4	103.2	BTEC	K55	55	711.30	6.47	710
	244.5	216.7	59.62	BTEC	H40	187	2632.87	6.70	2629.5

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	74.35	HW	76	165	4½IF	33	F-1000	Emsco	254
	127	38.07	E3	101	156	V	138	F-1000	Emsco	254
	127	29.62	E2	108	156		174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	22	23	24	25	26
1	MORN.					¼	5½																LEAK OFF TEST				
2	DAY						2¾	¼															2	3½	1½		
3	EVE.		6			½	1¾				¼																
24	TOTAL		6			¾	9¾	¼			¼										½		2	4	1½		

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO.	TYPE
2	Brandt FLC
SCREENS CHANGED	☐ YES ☐ NO
TOP 140	TOP 175
MIDDLE 140	MIDDLE 175
BOTTOM 140	BOTTOM 175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 419585			
TMJ 7625			
Screen 0.1 .38			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	215.9
IADC CODE	537
MFG.	HUGHES
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3 X 11.1
DEPTH OUT (m)	2637
DEPTH IN (m)	2159
TOTAL METRES DRILLED (m)	478
TOTAL HOURS RUN	13

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
2	2	NO	-	E	I	NO		

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	0015
DENSITY kg/m³	1110
FUNNEL VIS. - (S/L)	56
W.L. (cm³)	5.5
pH	10.5
P.V./Y.P.	87/1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Corinox	1 pl
Safcarb	112 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2637				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
T.D. Record		
Mens 13.17		
Can 11.73		
Diff 1.44		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0200	2	22	LEAK OFF TEST.
0200	0215	¼	5	Flow Circ. & Monitor Flow Returns
0215	0730	5½	6	Pull 25 stds. Floor Pump Pill & T.O.O.H.
				Flow 5, 15, 50, 85, 5 stds, out of hole.
0730	0800	½	23	Pick up directional Tools.

NOTES: Crown Saver Fastline Change Deadline Anchor
Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
6	10.5	350°	103000 daN		16955 kpa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Motor	165	6.05 m
1	Float Sub	165	.75 m
1	Res Sub	160	.75 m
3	NMDC	161	27.63 m
2	X/O	165	1.27 m
1	S/S	170	3.49 m
6	HWDP	127	56.28 m
1	Jar	170	5.36 m
25	HWDP	127	238.97 m
			m
		BHA =	330.77 m
81	D.P.	STANDS	m
—	D.P.	SINGLES	— m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		17000	1000 daN
WT. OF STRING		99000	1000 daN

BIT RECORD

BIT NO.	2 RR
SIZE (mm)	215.9
IADC CODE	537
MFG.	Hughes
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3 X 11.1
DEPTH OUT (m)	
DEPTH IN (m)	2637
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	1110
FUNNEL VIS. - (S/L)	56
W.L. (cm³)	5.5
pH	10.5
P.V./Y.P.	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2637				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

3400 @ @ 30

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1130	3½	23	P/U directional Tools, Test MWD Mak Bit.
				P/U New Jars #10137 Stab Sub #10693
1130	1200	½	6	Make up Bha & R.I.H.
1200	1230	½	20	Test MWD Blow out Hole
1230	1400	1½	24	Pick up 10 Joints of HWDP
1400	1415	¼	7	R/S, Function Annular, 19 Sec 10 sec.
1415	1600	1¾	6	R.I.H. Flow √ & Fill P.P. every 1000m.

NOTES: √ Crown Saver Fastline Clamp Deadline Anchor Brakes & Linkage
Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°C		Tripping	9782

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Motor		6.05 m
1	Float Sub		.75 m
1	Res Sub		.75 m
3	NMDC		27.63 m
2	X/O		1.27 m
1	S/S		3.49 m
6	HWDP		56.28 m
1	JAR		5.36 m
25	HWDP		206.97 m
		BHA =	330.77 m
81	D.P.	STANDS	323.24 m
	D.P.	SINGLES	m
Stuck Pt	KELLY DOWN		1.61 m
	TOTAL		2653 m
WT. OF DC		23000	1000 daN
WT. OF STRING		99000	1000 daN

BIT RECORD

BIT NO.	2 RR
SIZE (mm)	215.9
IADC CODE	537
MFG.	Hughes
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	3 X 11.1
DEPTH OUT (m)	2637
DEPTH IN (m)	2621
TOTAL METRES DRILLED (m)	16
TOTAL HOURS RUN	6

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	20000 ↑ 15000 ↓ Sticking
TORQUE AT BOTTOM	9500 FT/LBS
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	1930	21:30	23:30
DENSITY kg/m³	1110	1110	1110
FUNNEL VIS. - (S/L)	56	57	55
W.L. (cm³)	5.6	5.8	5.6
pH	9.4	10.0	11.0
P.V./Y.P.	85 m³	86	86.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			
	CENT	RE	
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2637	2653	16	35 MTRS 65	15/16 25/27

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8100	152	-	152	90

Choke

REDUCED PUMP SPEED

3400 @ 63 @ 30

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2630.42	6.9	315.1

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1¼	6	R.I.H. Flow √ & Fill P.P. every 600m.
1715	1745	½	5	Break Circ Wash To Bottom From 2600m.
1745	2030	2¾	2	Dr. 11 215.9mm H 2637.80m - 2644m
2030	2045	¼	10	Survey
2045			2	Slide Drill 2644m - 2652m
	2400	3¼		Rotate 2652m - 2653m

NOTES: √ Crown Saver Fastline Clamp Deadline Anchor
Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	120 000 daN		9782 kpa

FOLD HERE →

140094

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Hard c-31
OPERATOR: Canadian Forest Oil LTD	**CONTRACTOR:** Akita Drilling LTD
SURFACE LOCATION: 300 c/31 1040 12330 e	**UNIQUE ID.:** 300 c/31 1040 12330 e
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 12 | DAY 14
RIG NO.: 56

FUEL @ 8:00

RIG 1.07 | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	314.4	103.2	ISTEC	K55	55	711.20	6.47	710
	244.5	216.7	79.13	BTEC	H40	169	2629.2	5.70	2629

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
137	74.35	NW	76	156	4½IF	33	F-1600	Emsco	254
127	38.07	E3	101	154	V	136	F-1000	Emsco	254
127	29.03	E2	108	154		174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	1 OPER.	2 DRLG ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.				8																	Drillers Mtg				
	DAY	6			3/4																1/2	3/4				
	EVE.	7			1																					
	TOTAL	13			9 3/4																1/2	3/4				

TOTALS

8	SHALE SHAKER(S) NO.	TYPE Derrick FLC	RENTALS/SERVICES: TMS 4777
8	SCREENS CHANGED ☐ YES ☒ NO		AMT 5777
8	TOP 140	TOP 175	Accom Oil .36
8	MIDDLE 140	MIDDLE 175	
24	BOTTOM 140	BOTTOM 175	

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.24 m
1	Bit Sub	157	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	Stabsub	167	3.32 m
1	JAR	167	5.72 m
1	X/O	168	.44 m
15	HWDP	127	137.00 m
		BHA=	204.30 m
85	D.P. STANDS		2438.34 m
	D.P. SINGLES		m
	KELLY DOWN		14.64 m
	TOTAL		2628.98 m
WT. OF DC	HWDP	11000	1000 daN
WT. OF STRING		96000	1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	215.9
IADC CODE	537
MFG.	Hughes
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	6 RBN
DEPTH OUT (m)	
DEPTH IN (m)	2629
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓ daN
TORQUE AT BOTTOM 7000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1035	1050	1085
FUNNEL VIS. - (S/L)	68	66	66
W.L. (cm³)			
pH	10.0	10.0	10.5
P.V.T	81.3	83.0	85.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Drispac	10 SX
Super Kleg	16 SX
Starpak	52 SX
Lignite	2 SX
Driscal	2 SX
Xanvis	3 SX
Caustic	1 SX
Volcanic	1008

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629			70	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3600	152		152	90

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0800	8	5	CIRC. & COND MUD

NOTES
√ Crown Saver Fastline Clamp Deadline Anchor
Boilers Blown Down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	161000 daN		19603 kpa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.24 m
1	Bit Sub	159	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	5/5	167	3.39 m
1	Jar	167	5.72 m
1	X/O	168	.44 m
15	HWDP	127	137.00 m
		BHA=	204.30 m
85	D.P. STANDS		2438.34 m
—	D.P. SINGLES		— m
	KELLY DOWN		7.84 m
	TOTAL		2634.80 m
WT. OF DC		11000	1000 daN
WT. OF STRING		96000	1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	215.9
IADC CODE	537
MFG.	Hughes
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	OPEN
DEPTH OUT (m)	—
DEPTH IN (m)	2629
TOTAL METRES DRILLED (m)	5
TOTAL HOURS RUN	6

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓ daN
TORQUE AT BOTTOM 8800 FT/LBS
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	07:30	10:30	15:30
DENSITY kg/m³	1110	1110	1110
FUNNEL VIS. - (S/L)	66	63	58
W.L. (cm³)	5.8	5.8	5.4
pH	10.5	10.5	10.5
PVT m3	85.7	93.5	93.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629	2634	5	50	10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3800	152	—	152	90

REDUCED PUMP SPEED

1900 @ 60 @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:45	3/4	5	Circ & condition mud.
08:45	09:15	1/2	21	B.O.P. Drill test and H2S discussion
09:15				Rig Service & Trips.
09:15	10:00	3/4	20	Drill out Shoe & Tagged Bottom 2631.80m
10:00	16:00	6	2	Drill 215.9mm hole f/2631.80m - 2634.80m

NOTES √ Crown Saver Fastline Clamp Deadline Anchor Brakes & bushings
Boilers Blown down 3X, √ Greased Crown & Blocks, √ Torque Tube.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	101000 daN	BOP & H2S Drills	18957 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.24 m
1	Bit Sub	159	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	5/5	167	3.39 m
1	Jar	167	5.72 m
1	X/O	168	.44 m
15	HWDP	127	137.00 m
		BHA=	204.30 m
85	D.P. STANDS		2438.34 m
	D.P. SINGLES		m
Stick-up	KELLY DOWN		4.64 m
	TOTAL		2637.68 m
WT. OF DC		11000	1000 daN
WT. OF STRING		96000	1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	215.9
IADC CODE	537
MFG.	Hughes
TYPE	H-S30
SERIAL NO.	K81DL
JETS (mm)	OPEN
DEPTH OUT (m)	
DEPTH IN (m)	2629
TOTAL METRES DRILLED (m)	8
TOTAL HOURS RUN	13

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓ daN
TORQUE AT BOTTOM 9000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:30	20:30	22:30
DENSITY kg/m³	1110	1110	1110
FUNNEL VIS. - (S/L)	57	56	56
W.L. (cm³)	5.4	5.5	5.5
pH	10.5	10.5	10.5
PVT m3	92.7	79.1	78.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2634	2637	3	50	10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3800	152	—	152	90

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	23:00	7	2	Drill 215.9mm hole f/2634.80m - 2637.68m
23:00	24:00	1	3	Circ. 5bbls sup Flow check

NOTES √ Crown Saver Fastline Clamp Deadline Anchor
Boilers Blown Down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	101000 daN		18958 kPa

FOLD HERE →

140093

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Lwid c-31

OPERATOR: Canadian Forest Oil Ltd | CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 300 c-31 L04D /0330 c | UNIQUE ID.: 300-C31-L04D-10330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Slick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (daily/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (crew/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR: 2000 | MONTH: 12 | DAY: 23

RIG NO.: 5

FUEL @ 8:00

RIG: 1.35 | BOILER:

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.4	101.2	BTFC	K55	15	711.20	6.47	710
	244.5	219	59.4	BTFC	N80	157	3169.2	5.70	2693

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	711.35	H90	76	158	4½ IF		F-1000	EMSCO	254
	127	39.07	E75	101	154	V	138	F-1000	EMSCO	254
	127	39.02	E75	108	154	V	174	F-500	EMSCO	203.2

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.						3	1/4				4 3/4													
	DAY						3 1/2	1/4				4 1/4													
	EVE.					7 1/4	1/4																		
	TOTAL					7 1/4	7 3/4	1/2				9													

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. TYPE Derrick DMC	TMJ 477533			
8	SCREENS CHANGED ☐ YES ☒ NO	AMJ 5573			
8	TOP 140 TOP 175	Accum Gl. 38			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH

D.P. STANDS | D.P. SINGLES | KELLY DOWN | TOTAL

WT. OF DC (1000 daN) | WT. OF STRING (1000 daN)

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm) | S.P.M. | PUMP NO. 2: LINER SIZE (mm) | S.P.M.

	152		152	

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0300	3	6	L.O.C.H.
0300	0315	1/4	7	R/S FUNCTION UPPER RAMS BSEC 4/5
0315	0330	1/4	11	RIG UP SCHLUMBERGER WIRE LINE
0330	0530	2	11	SCHLUMBERGER WORKING ON TOOLS
0530	0800	2½	11	RIH W/WIRELINE BOND LOG

NOTES: √CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR, BRAKES BLOWN DOWN 3X

BOILER: HRS. RAN | ph | STACK TEMP. — 8 | 10.5 | 350

MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC | M.A.C.P.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.24 m
1	BIT SUB	159	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	Shock Sub	167	3.39 m
1	Jar	167	5.72 m
1	X/O	168	.44 m
15	HWDP	127	137.00 m
		BHA:	204.30 m
85	D.P.	STANDS	2438.34 m
—	D.P.	SINGLES	— m
	KELLY DOWN		14.64 m
	TOTAL		2628.60 m

WT. OF DC: 11000 (1000 daN) | WT. OF STRING: 96000 (1000 daN)

BIT RECORD

BIT NO.: 2 | SIZE (mm): 215.9 | IADC CODE: 537 | MFG.: Hughes | TYPE: H-S30 | SERIAL NO.: K81DL | JETS (mm): OPEN | DEPTH OUT (m) | DEPTH IN (m): 2629 | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 15000↑ 110000↓ DOWN SLIDING | TORQUE AT BOTTOM: 8800 FT/LB | FILL ON BOTTOM (m): 0

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³: WATER | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	25 x
Dispersk	65 x
Starch	125 x
Desco	55 x
Lignite	55 x

SOLIDS CONTROL

DESILTER: HOURS RUN: 0

CENTRIFUGE #1: HOURS RUN: 0

CENTRIFUGE #2: HOURS RUN: 0

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629				

CIRCULATION PRESSURE (kPa): 2300 | PUMP NO. 1: LINER SIZE (mm): 152 | S.P.M.: — | PUMP NO. 2: LINER SIZE (mm): 152 | S.P.M.: 90

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1100	3	11	Pressure casing to 7000 KPa & Log
1100	1215	1¼	11	Rig out Loggers
1215	1230	¼	7	R/S, Function upper Pipe Rams & Sec ck.
1230	1600	3½	6	Make up BHA & R.I.H.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage, Boilers Blown Down 3X, √Flare Igniter

BOILER: HRS. RAN | ph | STACK TEMP. — 8 | 10.5 | 350

MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC: H2S Drills | M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.24 m
1	BIT SUB	159	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	S/S	167	3.39 m
1	Jar	167	5.72 m
1	X/O	168	.44 m
15	HWDP	127	137.00 m
		BHA:	204.30 m
86	D.P.	STANDS	2436.34 m
	D.P.	SINGLES	m
	KELLY DOWN		14.64 m
	TOTAL		2628.60 m

WT. OF DC: 11000 (1000 daN) | WT. OF STRING: 96000 (1000 daN)

BIT RECORD

BIT NO.: 2 | SIZE (mm): 215.9 | IADC CODE: 537 | MFG.: Hughes | TYPE: H-S30 | SERIAL NO.: K81DL | JETS (mm): OPEN | DEPTH OUT (m) | DEPTH IN (m): 2629 | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 15000↑ 110000↓ | TORQUE AT BOTTOM: 7000 ft/lbs | FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME: 2300 | DENSITY kg/m³: 1010 | FUNNEL VIS. - (S/L): 46 | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629			10	

CIRCULATION PRESSURE (kPa): 2600 | PUMP NO. 1: LINER SIZE (mm): 152 | S.P.M. | PUMP NO. 2: LINER SIZE (mm): 152 | S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	¼	6	R.I.H. TO 2628 m
1615	2400	7¾	5	Fill Pipe, Circulate & condition mud.

NOTES: √CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR, BRAKES BLOWN DOWN 3X

BOILER: HRS. RAN | ph | STACK TEMP. — 8 | 10.5 | 350

MAXIMUM EXPERIENCED HOOKLOAD: 107 000 daN | SAFETY TOPIC | M.A.C.P.

FOLD HERE →

140092

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Laird C-31

OPERATOR: Canadian Forest Oil LTD | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 3-20 C-31 Lat 49 19 33.0 C | UNIQUE ID.: 3-20 C-31 Lat 49 19 33.0 C

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) HPS Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2010 | MONTH 7 | DAY 22

RIG NO. 56

FUEL @ 8:00

RIG 1.6E | BOILER

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.0	107.2	BTEC	K-55	55	2411.20	6.47	2418
	244.5	311.2	72.13	BTEC	N-80	189	2628.2	6.70	2637

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	74.35	H-90	76	158	4½ IF	21	F-1000	EMSCO	254
127	58.67	E-75	101	156	↓	136	F-1000	EMSCO	254
127	29.02	E-75	108	142		174	F-800	EMSCO	203

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.						3½	1/4																	
	DAY					3	23¾									1					1/4				
	EVE.					9½										1¼					2¼				
	TOTAL					21½	24¾	1/4								2¼					3½				

DRILL OUT — TRAW KELLY 4¼ — 1E — 4¼

TOTALS

	MORN	DAY	EVE
6			
8			
8			
24			

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☐ NO

TOP	140	TOP	175
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

TMJ 476413
AMJ 4515
Access Cl 435

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.24 m
1	6¾ SHB	159	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	JAR	170	5.72 m
1	X/O	168	.44 m
15	HWDP	127	137.01 m
			m
		BHA=	200.91 m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	1D
SIZE (mm)	215.9
IADC CODE	
MFG.	HUGHES
TYPE	JD6
SERIAL NO.	F112226
JETS (mm)	6 FOA
DEPTH OUT (m)	
DEPTH IN (m)	2629
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629			76	DIT

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0415	4¼	26	UNTHAW KELLY HOSE & STAND PIPE
0415	0430	¼	7	R/S FUNCTION BOTH. PIPE RAMS
0430	0800	3½	6	R.I.H. STRAP IN

NOTES: CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR BOILERS BLOWN DOWN

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
5	10.5	350°			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.24 m
1	8½	159	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	Jar	170	5.72 m
1	X/O	168	.44 m
15	HWDP	127	137.01 m
			m
		BHA=	200.91 m
			m
			m
85	D.P.	STANDS	2438.34 m
—	D.P.	SINGLES	— m
	KELLY DOWN		20.35 m
	TOTAL		2659.00 m
WT. OF DC	HWDP	11000	1000 daN
WT. OF STRING		96000	1000 daN

BIT RECORD

BIT NO.	1D
SIZE (mm)	215.9
IADC CODE	
MFG.	Hughes
TYPE	JD8
SERIAL NO.	F112226
JETS (mm)	OPEN
DEPTH OUT (m)	
DEPTH IN (m)	2629
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: HOOK 100,000 # STRING
TORQUE AT BOTTOM: 11000 FT/LB
FILL ON BOTTOM (m): —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³: 1000
FUNNEL VIS. - (S/L): 30
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pericat 118	55 KG

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)
10 | 1619 | 1100 | 1470
2 | 2493
HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)
10 | 1613 | 100 | 1510

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629			45	5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
P.S.O.R.				
1600	152	—	152	85

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1045	2¾	6	R.I.H., Strap IN, Pick up 14 E3 D.P.
				Tagged Float @ 2614.31 m
1045	1345	3	5	Displace hole To Water
1345	1445	1	15	Pressure Test Bottom Pipe Rams & Casing, Upper Kelly Cock, 1500 kPa Low 17500 kPA High, 10 min each.
1445	1600	1¼	22	Drill out Float and 6m of cement
				Processed 60 m³ of mud.

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	110000 DAN	Pressure Testing	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)
4 | 1600 | 1090 | 1450

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)
4 | 1505 | 1070 | 1580
HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629			10	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17000	152		152	85

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1700	1	22	Drill out Float & 6m of Cement
1700	1745	¾	15	Pressure Test Float & Casing & Lower Pipe Rams 1500 kPa Low 17500 kPA High, 10 min each.
1745	1900	1¼	22	Drill TO 2628m 1m above Shoe.
1900				Pressure Test Casing, Upper Kelly Cock, Lower Pipe Rams.
	1930	½	15	1500 kPa Low 17500 kPA High, 10 min each
1930	2200	2½	5	Circ & Casing Clean
2200	2400	2	6	POOH FOR Sand Log
				Processed 50 m³ of mud

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	350	110000 daN		

EVENING TOUR

FOLD HERE →

140091

LICENCE NO.:	WELL NAME AND NO.:
1900	CANADIAN FOREST OIL NORTH LAIRD C-31
OPERATOR: CANADIAN FOREST OIL	CONTRACTOR: AKITA DRILLING LTD
SURFACE LOCATION: 300 C-31 60°10' 123°30'-9	UNIQUE ID.: 300 C-31 60°10'123°30'-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR | MONTH | DAY

RIG NO. 53

FUEL @ 8:00

RIG | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.4	107.2	DTGC	K55	53	711.26	6.7	710
	244.5	219	77.62	STGC	HC4	189	2629.2	3.70	2629

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT.O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	74.35	S135	76	158	4½ XH	17	F1000	EMSCO	254
	127	58.07	E	101	156	4½ IF	138	F1000	EMSCO	254
	127	29.02	E	108	156	4½ IF	173	F1000	EMSCO	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Wear Bushing	24 Clean Tanks	25 TOP Drive	26 Thawing
	MORN.						3½									1½						½	2½			
	DAY						1																7			
	EVE.						3¼																	3	3	2¼
	TOTAL						7¼									1½						½	2½	3	3	2¼

TOTALS

	SHALE SHAKER(S)		RENTALS/SERVICES	MORN	DAY	EVE
6	NO. 3 TYPE DERRICK ITC		TWD 479681			
8	SCREENS CHANGED ☐ YES ☒ NO		AMT 2921			
8	TOP 140	TOP 175	ACCUM OIL .53			
6	MIDDLE 140	MIDDLE 175				
34	BOTTOM 140	BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BITS/B		1.22 m
	SHOCK SUB		3.39 m
6	HWDP		56.39 m
	JARS		5.72 m
	X/O		1.31 m
15	HWDP		137.01 m
	BHA		205.19 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC 13000 1000 daN

WT. OF STRING 26000 1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	215.9 Rad 184
IADC CODE	
MFG.	J&L
TYPE	FDS
SERIAL NO.	F11229
JETS (mm)	OPEN
DEPTH OUT (m)	
DEPTH IN (m)	2629.57
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57			70	13

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000				PRESSURE TEST upper & LOWER Kelly VALVES to 5000 psi HIGH
	0130	1½	15	Check ACCUMULATOR
0130	0200	½	23	INSTALL WEAR BUSHING
0200	0430	2½	23	RIH DC'S & LAY DOWN 11 COLLARS
0430	0800	3½	6	RIH HWDP & PICK UP 8 MORE 4 RIH

NOTES: Crown Saver 150 - De Clamp - Deadline Anchor Brakes Links

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	10.5	350			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub		1.22 m
1	~~S/O~~	~~1.31~~	
21	HWDP	127	646.30 m
1	JAR		9.75 m
	X/O		1.31 m
	~~HWDP~~		~~137.01~~ m
	~~BHA~~		~~205.19~~ m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC 13000 1000 daN

WT. OF STRING 1000 daN

BIT RECORD

BIT NO.	1D
SIZE (mm)	215.9 Pumped 40m³ of
IADC CODE	HYDRATED GEL. 4m³ of
MFG.	Hughes Christensen Pumped 75.8m³ of
TYPE	J08 To 21m Pumped 4m³ of
SERIAL NO.	F11226 107.0 Tonnes THERMAL 40. 7% CFR. 7% CFL-
JETS (mm)	OPEN 942 LITRE 1895 kg/m³ Drilled To Rig Dis
DEPTH OUT (m)	
DEPTH IN (m)	2629. with 965 kg/m³ Pumped 20m³ of
TOTAL METRES DRILLED (m)	Hi-Vis 108 2m³ Pumped 4m³ of
TOTAL HOURS RUN	Hydrated Gel. Thereafter Drilled @ 130

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³ 1200 kg/m³

FUNNEL VIS. - (S/L) Pumped 75.8m³ of

W.L. (cm³) Hydrated Gel. 4m³ of

pH Thereafter 40.7% CFR. 7% CFL-

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.5				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
RE 30/2000		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	0600	1	6	TOOH Lay Down 178mm DC's
0600		24		~~Test BOPE~~ TOPE FOR SHA ~~BY SUB 4½ XH~~ 4½ IF
				Clean MUD TANKS & PREPARE To
	1600	7		DISPLACE HOLE TO WATER

NOTES: Crown Saver Fastline Clamp Deadline Anchor Brake Links Kelly Hose Down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.24 m
1	B/S	159	.85 m
6	HWDP	127	56.28 m
1	X/O	170	.38 m
1	JAR	170	5.72 m
1	X/O	168	.49 m
15	HWDP	127	137.09 m
	BHA		200.91 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC HWDP 11000 1000 daN

WT. OF STRING 1000 daN

BIT RECORD

BIT NO.	1D
SIZE (mm)	215.9
IADC CODE	
MFG.	Hughes
TYPE	JD8
SERIAL NO.	F11226
JETS (mm)	OPEN
DEPTH OUT (m)	
DEPTH IN (m)	2629
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1800	2	25	Change out Kelly cock on TOP Drive, Change Bails
1800	1930	1½	26	Thaw out Kelly hose.
1930	2245	3¼	6	Make up BHA, R.I.H. Strapin.
2245	2400	1¼	26	Continue Thawing Kelly line.

NOTES: Crown Saver, Fastline Clamp Deadline Anchor, Brake Set, Links Kelly Hose Boiler Blown down

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	95000		

C-31

Dec 01-87

FOLD HERE →

140090

LICENCE NO.: 1900 | WELL NAME AND NO.: UNNAMED FOREST OIL HORN LAKE C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6040 12330 | UNIQUE ID.: 300 C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using chec
(3) H2S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually inspect BOP's - Flarelines & Degasser Lines
(1) Rig Site Health and Safety Meeting (ons/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR | MONTH | DAY: 2011 | 12 | 20

RIG NO.: 58

FUEL @ 8:00

RIG: 103 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.4	101.2	ISAEC	K55	55	711.20	6.40	710
	244.5	219	77.62	BT+C	H40	189	2629.2	5.70	2629.0

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	74.55	HWDP	76	152	4½IF	19	F 1000	EMSCO	254
	127	38.07	E-75	101	158	4½IF	155	F 1000	EMSCO	254
	127	29.02	E-75	101	152	4½IF	174	F 1000	EMSCO	254

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.	1											3		3½								1½		Cut casing		
	DAY														3¼										4½		
	EVE.															1	7										
	TOTAL	1											3		6¾	1	7						1½		4½		

TOTALS: 8 | 8 | 8 | 24

SHALE SHAKER(S)

NO.: 2 | TYPE: DERRICK FLC

SCREENS CHANGED ☐ YES ☐ NO

TOP		TOP	
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES | MORN. | DAY | EVE.

TMJ 479535
AMS 2575
ACCUMUL 33

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC (1000 daN)
WT. OF STRING (1000 daN)

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION: HOLE DRAG; TORQUE AT BOTTOM; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Leo Burgoon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0130	1½	12	Cement & Displace with MUD
0130	0300	1½	12	RIG OUT SAUER CEMENTERS
0300	0630	3½	14	PREPARE TO LIFT BOPS TO INSTALL Casing Slips
0630	0800	1½	22	SET CASING SLIPS

NOTES: Crown Saver-Fastline Clamp-Deadline Anchor-Brakes Lubed
Boiler Blow down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	350°			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC (1000 daN)
WT. OF STRING (1000 daN)

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION: HOLE DRAG; TORQUE AT BOTTOM; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Retrol 722	12 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.5	2629.5			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	1½	24	Cut Casing to get Elevators off
0830	1230	3	24	Cut Casing & Remove Spool
1230				Install C Spool
				Change BOP Bolts for C Spool
				Wrong Size Bolts to fit Spool
	1400	3½	14	Change Flow Nipple for Starter Head

NOTES: Crown Saver-Fastline Clamp-Deadline Anchor
Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	350°			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	BOWEN	215	2.25
6	8 Pads		137.77
	40		931.00
	VS Motor		
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC (1000 daN)
WT. OF STRING (1000 daN)

BIT RECORD

BIT NO.
SIZE (mm) 215
IADC CODE
MFG. SEC
TYPE J08
SERIAL NO. F11326
JETS (mm) 3 PDM
DEPTH OUT (m)
DEPTH IN (m) 2629
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION: HOLE DRAG; TORQUE AT BOTTOM; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.5	2629.5			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1400	1700	3	14	Nipple up BOPS on to C Spool
1700	2400	7	15	Pressure Test Blinds to 5000 High 175 Annular to 3500 High 175 Upper Pipe Low 1500 High 175

NOTES: Crown Saver-Fastline Clamp-Deadline Anchor-Brakes Lubed

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

140089

LICENCE NO.: 1490 | WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH LARO C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300/C-31 6040/12330-0 | UNIQUE ID.: 300 C 31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Slick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2006 | MONTH 12 | DAY 17

RIG NO. 58

FUEL @ 8:00

RIG 136 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	339.7	315.4	71.2	BTC	K55	55	2412	6.7	740
TUBING OR LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	77.5	E	76	158	4½ FH	17	F1000	EMSCO	254
	127	57.1	E	101	176	4½ IF	138	F1000	EMSCO	254
	127	29.2	E	101	158	4½ IF	17	F1000	EMSCO	254

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.					3¼							1¼												HANDLING 30.5	
	DAY					2¼							5¾												5½	
	EVE.					5							2¾									¼				
	TOTAL					8							10¼									¼			6	

TOTALS

	SHALE SHAKER(S)		RENTALS/SERVICES	MORN.	DAY	EVE.
NO.	TYPE					
8	SCREENS CHANGED ☐ YES ☐ NO					
8	TOP 140	TOP 175				
8	MIDDLE 140	MIDDLE 175				
24	BOTTOM 140	BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2695				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3800	152	62	152	60

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Leo Bourgeois

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0030	½	12	RUN CASING 1628m - 1737m
0030	0115	¾	5	CIRC BTMS UP.
0115	0645	5½	25	CHANGE TO 350 TON SLIPS - (AKITA)
				1ST - BACK TO ORDINARY SLIPS
				LAY DOWN 1 JT.
0645	0800	1¼	12	RUN CASING 1737m - 1805m.

NOTES: Shale SHAKER - Pason Trailer Drill Line Broke Brakes Adjusted
Boiler Blow down 3x

BOILER HRS. RAN	BOILER ph.	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	130000	FOUR R TONGS	1561 KPA

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2695	2695			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3300	152	55	152	55

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	1345	5¾	12	RIH. 244.5mm CASING 1805m - 2600m
1345	1500	1¼	5	BRK. CIRC & WASH FROM 2600 - 2695.5
1500	1600	1	5	CIRC & COND. MUD

NOTES: Crown Saver Fastline Clamp Deadline Anchor
Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph.	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	200000 daN		

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2695				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
2900	152	51	152	51

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2100	5	5	CIRC. CASING & COND. MUD
2100	2145	¾	21	SAFETY MTG WITH CREW STEPS
2145	2200	¼	12	RIG UP CEMENT HEAD LINES
2200	2215	¼	12	PRESSURE TEST LINES
2215	2400	1¾	12	CEMENT INTER MEDIATE CASING

NOTES: Crown Saver Fastline Clamp Deadline Anchor Drag Linkage
Blow Down Boiler 3x

BOILER HRS. RAN	BOILER ph.	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350		CIRCULATING	1561 KPA

FOLD HERE →

140088

LICENCE NO.:	WELL NAME AND NO.:
1962	100/01-04-070-12W6/00 C-3I
OPERATOR:	CONTRACTOR:
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	UNIQUE ID.:
300 C-3I 60m 12330-0	300 C-3I 60m 12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2006 MONTH 12 DAY 18

RIG NO. 58

FUEL @ 8:00

RIG 1.67 BOILER

WEATHER

TEMPERATURE	°C
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.3	107.1	B+C	K55	55	711.20	6.07	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	74.3	V-150	76	152	4½ IF	17	F-1000	EMSCO	254
127	58.07	E	101	156	4½ IF	138	F-1000	EMSCO	254
127	54.03	E	108	156	4½ IF	114	F-1000	EMSCO	254

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Collars	Hole Opener	Stab	Handle Tools	
MORN.												5½									¼	1¾	¾			
DAY												5									¼		1¾	1		
EVE.												7											1			
TOTAL												17½									½	1¾	¾	1		

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☐ NO

TOP	TOP
MIDDLE	MIDDLE
BOTTOM	BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE
Tong 473230			
AMS 1270			
Accumul			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC ____ 1000 daN

WT. OF STRING ____ 1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE				B	Gage	ODC	Reason Pulled	Total Run m/hr.
T_I	T_O	MDC	LOC					

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.5	TD			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Ken Livingston

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0145	1¾	22	LAY DOWN 228mm DC & MISCELL
0145	0230	¾	23	PULL WEAR BUSHING
0230	0800	5½	12	CLEAN FLOOR & RIG TO RUN CASING
				HOLE FILL ACTUAL 19.37 CAL 17.31
				DIFF 2.06 m³

NOTES: Crown Saver · Fast Line Clamp · Deadline Anchor · Brakes · Linkages · Blow Down Boiler 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350		RIG UP FLOOR	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC ____ 1000 daN

WT. OF STRING ____ 1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE				B	Gage	ODC	Reason Pulled	Total Run m/hr.
T_I	T_O	MDC	LOC					

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.5	TD			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Ken Livingston

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0815	¼	21	HELD SAFETY MEETING CREW CHANGE
0815	0930	1¼	24	REPAIR LAY DOWN TRUCK
0930	1300	3½	12	RUN 244.5mm CASING TO 365m
1300	1330	½	24	REPAIR LAY DOWN TRUCK
1330	1500	1½	12	RUN 244.5mm CASING @ 365m - 700m
1500	1600	1	25	CHANGE ELEVATORS TO 350TON

NOTES: Crown Saver · Fast Line Clamp · Deadline Anchor · Brakes · Linkages · Blow Down Boiler 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			1568 kpa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC ____ 1000 daN

WT. OF STRING ____ 1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE				B	Gage	ODC	Reason Pulled	Total Run m/hr.
T_I	T_O	MDC	LOC					

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.5				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Ken Livingston

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1700	1	25	R.U. UP 350 TON ELEVATORS
1700	2400	7	12	RIH 244.5mm CASING 700m - 1628m

NOTES: Crown Saver · Fast Line Clamp · Deadline Anchor · Brakes · Linkages · Blow Down Boiler 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	1200	RUN CASING	1568 KPA

FOLD HERE →

140087

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST OIL ET AL KAKWA LAND C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Precision Drilling Corp

SURFACE LOCATION: 30-C-31 Lat 49 12330-0 | UNIQUE ID.: 30-C-31 Lat 49 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lauck

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Slick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2008 | MONTH 12 | DAY 7 | RIG NO. 58

FUEL @ 8:00 RIG 2.04 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	311.2	107.6	DFC	J55	55	1720	6.17	710

	DC/DP SIZE (dm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	74.3	HWDP	76	158	4½ IF	17	F1000	Emsco	254
	127	58.07	E	101	156	4½ IF	138	F1000	Emsco	254
	127	29.02	E	101	156	4½ IF	170	F1000	Emsco	254

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	DOLLARS				
MORN.					2¾	5¼																				
DAY					7½	12																				
EVE.					4½	6			¾												1					
TOTAL					14½	23¼			¾												1					

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. TYPE: Derrick FLC	Loss 472.225			
8	SCREENS CHANGED ☐ YES ☒ NO	Mud 240			
8	TOP 140 TOP 175	Accum Oil 36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	Hughes GX30	311	0.43
	1 Sub	203	2.32
	8" DC	203	7.32
	1 Sub	203	1.00
3	8" DCs	203	29.02
5	DC	178	130.44
1	Sub	178	1.31
6	HWDP	127	54.87
			327.31
60	D.P.	STANDS	
X	D.P.	SINGLES	2302.64
	KELLY DOWN		
	TOTAL		2629.57
WT. OF DC		1000 daN	41000
WT. OF STRING		1000 daN	115 000

BIT RECORD

BIT NO.	3 CRR
SIZE (mm)	311
IADC CODE	617
MFG.	REED
TYPE	HP62A
SERIAL NO.	DP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	2629.57 TD
DEPTH IN (m)	2623.57 TD
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000# 16-15000 lb

TORQUE AT BOTTOM 7 Hours 13/16 7/8

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00
DENSITY kg/m³	1635
FUNNEL VIS. - (S/L)	103
W.L. (cm³)	8.0
pH	10.3
P.V.T	94.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	294 SKS
Lignite	35 SKS

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15700	152	83	152	83

REDUCED PUMP SPEED 5400 @ 83 @ 75

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0245	2¾	5	Circ & Condition Mud
0245	0415	1½	6	Pooh Blk Out 4 Stds Flow ✓
0415	0600	1¾	6	Pooh To 1713m Flow 1713m
0600	0800	2	6	RIH To BTM
				Hole Fill Calc 365 Actual 405 Diff +40

NOTES: Crew Safety Meeting Held. Bypass Anchor Chain Loosened Boiler Blow Down 3x

BOILER: HRS. RAN 8 | ph 10.5 | STACK TEMP. 350

MAXIMUM EXPERIENCED HOOKLOAD: 145 000

SAFETY TOPIC: Trippins

M.A.C.P.: 14278 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	3rd Run	311	0.43
1	1 Sub	203	2.32
1	3rd Run	203	7.32
1	NMDC	203	9.25
1	3rd Run	203	29.19
5	DC	178	130.44
1	Sub	178	1.31
6	HWDP	127	54.87
			327.31
60	D.P.	STANDS	
X	D.P.	SINGLES	2302.64
	KELLY DOWN		
	TOTAL		2629.57
WT. OF DC		1000 daN	41000
WT. OF STRING		1000 daN	115 000

BIT RECORD

BIT NO.	3 CRR
SIZE (mm)	311
IADC CODE	617
MFG.	REED
TYPE	HP62A
SERIAL NO.	DP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	2629.57 TD
DEPTH IN (m)	2623.57 TD
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 8000# - 16000#

TORQUE AT BOTTOM 9 - 14000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	11:00	13:00
DENSITY kg/m³	1620	1620
FUNNEL VIS. - (S/L)	81	81
W.L. (cm³)	8.0	8.0
pH	10.4	10.5
P.V.T	93.4	94.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	150 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152	80	152	80

REDUCED PUMP SPEED 6300 @ 80 @ 2629m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	0615	¼	5	Brk. Circ. Wash To Btm 2629m - 2629m
0615	1530	7¼	5	Circ. & Cond Mud
1530	1600	½	6	Pooh Pump Out 5 Stds. Flow -
				Verco Saver Fastline Clamp Deadline Anchor
				Boilers Blown Down 3x

NOTES: [see above]

BOILER: HRS. RAN 8 | ph 10.5 | STACK TEMP. 350

MAXIMUM EXPERIENCED HOOKLOAD: 150 000 daN

SAFETY TOPIC:

M.A.C.P.: 14278 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1645	¾	6	Pooh Flow ✓ 1045m
1645	1700	¼	5	Pump Pill + Blow Kelly Hose
1700	2000	3	6	Pooh Flow ✓ 405m
2000	2045	¾	9	Slip & Cut 30m Drilling Line
2045	2300	2¼	6	Pooh LD DC
2300	2400	1	22	Lay Down 228 mm Collars

NOTES: Crew Safety Meeting Held. Deadline Anchor Chain Loosened Boiler Blow Down 3x

BOILER: HRS. RAN 8 | ph 10.5 | STACK TEMP. 350

MAXIMUM EXPERIENCED HOOKLOAD:

SAFETY TOPIC: Lay Down Collars

M.A.C.P.:

FOLD HERE →

140086

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL WORK 2 ARO C-31

OPERATOR: CANADIAN FOREST O/L | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6040-12330-0 | UNIQUE ID.: 300-C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 12 | DAY 16 | RIG NO. 56

FUEL @ 8:00

RIG 111 | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.3	107.2	B+C	K55	55	1120	0.97	110

	DO/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	29.35	105	76	158	4½IF	17	F1000	Emsco	254
	127	29.07	E5	101	156	4½IF	138	F1000	Emsco	254
	127	29.02	E5	101	156	4½IF	174	F1000	Emsco	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 UNTHAW STAND PIPE	24	25	26
	MORN.						6½																1½			
	DAY			2½		3½	9½																			
	EVE.					4½						3½														
	TOTAL			2½		7½	16					3½											1½			

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 | TYPE DERRICK FLC

SCREENS CHANGED ☐ YES ☐ NO

TOP	TOP
MIDDLE	MIDDLE
BOTTOM	BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE
TMS 46237			
AMS 7017			
Accum oil 36			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT 8		0.46 m
1	MOTOR		7.43 m
1	NMDC		9.18 m
1	3PT RMR		9.55 m
3	8" SPIRAL		27.43 m
3	8" HWDP		37.77 m
11	5" DP		107.13 m
6	HWDP		547.31 m
			327.31 m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	3RRR
SIZE (mm)	311
IADC CODE	627
MFG.	REED
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.8
DEPTH OUT (m)	
DEPTH IN (m)	2629.5 TD
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.5				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0130	1½	23	UNTHAW STANDPIPE
0130	0800	6½	6	RIH BREAK CIRC EVERY 9 STDS

NOTES

Crew Change Check Derrick Air Hoist Crown Saver Checked
Boiler Blow down 3x

BOILER HRS. RAN 8 | ph 10.5 | STACK TEMP. 350°

MAXIMUM EXPERIENCED HOOKLOAD:

SAFETY TOPIC: FROZEN RIG

M.A.C.P.:

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT 8		0.46 m
1	MOTOR		7.43 m
1	NMDC		9.18 m
1	3PT RMR		9.55 m
1	8" SPIRAL		9.54 m
3	DC	226	87.13 m
5	DC	228	146.09 m
1	XO		1.40 m
17	DC	178	110.14 m
1	XO		1.71 m
6	HWDP	197	54.87 m
		3 PUP	3.73 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	2302.64 m
	KELLY DOWN		m
	TOTAL		2629.57 m
WT. OF DC		44000 1000 daN	
WT. OF STRING		115000 1000 daN	

BIT RECORD

BIT NO.	3ERR
SIZE (mm)	311
IADC CODE	627
MFG.	REED
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.8
DEPTH OUT (m)	
DEPTH IN (m)	2629.57 TD
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000↑ 5-10000↓

TORQUE AT BOTTOM 9-18000 FT LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	12:00	15:30
DENSITY kg/m³	1620	1620
FUNNEL VIS. - (S/L)	81	95
W.L. (cm³)	10.0	8.0
pH	10.5	10.5
R.V.T	85.4	88.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Dispac	25X
Starpak	35X
Caustic	1SX
Desco	2SX
Lignite	2SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57			60	12

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14900	152	60	152	60

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	1015	2¼	6	RIH BRK CIRC. EVERY 9 STDS
1015	1245	2½	3	BRK CIRC @ 2601m REAM 2601 – 2629
1245	1600	3¼	5	CIRC. & COND. MUD

NOTES

√ CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR
BOILERS BLOWN DOWN 3X

BOILER HRS. RAN 8 | ph 10.5 | STACK TEMP. 350°

MAXIMUM EXPERIENCED HOOKLOAD: 130 000 daN

SAFETY TOPIC: COLD WEATHER

M.A.C.P.: 1568 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT 8		0.46 m
1	MOTOR		7.43 m
1	NMDC		9.18 m
1	3PT RMR		9.55 m
1	8" SPIRAL		9.54 m
3	DC	226	87.13 m
5	DC	228	146.09 m
1	XO		1.40 m
17	DC	178	110.14 m
1	XO		1.71 m
6	HWDP	197	54.87 m
		3 PUP	3.73 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	2302.64 m
	KELLY DOWN		m
	TOTAL		2629.57 m
WT. OF DC		44000 1000 daN	
WT. OF STRING		115000 1000 daN	

BIT RECORD

BIT NO.	3ERR
SIZE (mm)	311
IADC CODE	627
MFG.	REED
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.8
DEPTH OUT (m)	
DEPTH IN (m)	2629.57 TD
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000↑ 10-15000↓

TORQUE AT BOTTOM 9-16000 FT LBS 9½

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	23:00
DENSITY kg/m³	1620
FUNNEL VIS. - (S/L)	104
W.L. (cm³)	8.1
pH	10.5
R.V.T.	89.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m) | OVERFLOW DENSITY (kg/m) | UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15700	152	60	152	60

REDUCED PUMP SPEED 59100 @ 55 @ 3629

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1¼	5	CIRC. & COND. MUD
1715	2100	3¾	11	R.J.H. W/ WIRELINE GYRO to 2340m
2100	2200	1	5	BREAK CIRC & CIRC TO BTM
2200	2400	2	5	CIRC & COND MUD.

NOTES

√ CROWN SAVER - INSPECTED FASTLINE CLAMP ANCHOR - BOILERS

BOILER HRS. RAN 8 | ph | STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD: 130 000

SAFETY TOPIC: RIG OUT LOGGERS

M.A.C.P.: 1428 kPa

FOLD HERE →

140085

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ET AL HORN LAKE C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AREA DRILLING LTD

SURFACE LOCATION: 300-C-31 6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H/S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 12 | DAY 13

RIG NO. 53

FUEL @ 8:00

RIG 140 | BOILER

WEATHER

TEMPERATURE °C
CURRENT CONDITIONS
WIND DIRECTION
ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.9	107.2	BTAC	K55	55	711.20	6.41	710

	O.D. OF SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	29.76	E	101.6	158.8	4½ XH	177	F 1000	EMSCO	254
	127	36.57	E	101.6	158.8	4½ IF	138	F 1000	EMSCO	254
	127	29.76	E	101.6	158.8	4½ IF	174	F 1000	EMSCO	254

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.						3½					¼											MANIFOLD Tests				
DAY						8																				
EVE.						11½	½																			
TOTAL						22½	½				¼															

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. TYPE DERRICK F.C	TMS Hdg 940			
8	SCREENS CHANGED ☐ YES ☐ NO	AMS 5720			
8	TOP / TOP	Accum. 36			
8	MIDDLE / MIDDLE				
24	BOTTOM / BOTTOM				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
5	HWDP		45.90
1	E2		9.00
27	E3		257.82
20	STDS #		
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0245	2¾	11	Log #2 ARI - CNL/LDT-GR-CALIPER
0245	0345	2	11	Lay Down Loggers
0345	0700	3¼	6	Pick up DP 27 JTS
0700	0800	1	6	RIH

NOTES: Check Roadside Lights, Fire Extinguishers, Windows, Anchor Chokes Inspect Boiler Blow down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1100	3	6	R.I.H. to 1842 m Break Circ & Prepare to Log
1100	1600	5	6	Wash Ream DP to Bottom

NOTES: Crown Saver Fireline Check Derrickline Anchor Boilers Blow Down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			1426 kPa

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1¼	6	Lay Down 27 JTS E3 DP & 3rd HWDP
1715	1730	¼	7	R/S Function Blind Rams & Sec. Ck
1730	1930	2	22	M/U BHA Steam DC Stands
1930	2400	4½	23	Untrain Stand Pipe - Mudline

NOTES: Pre-Job Safety Meeting Clear Work Area Brakes Inspected Boiler Blow down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

140084

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Lard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 08 | MONTH 12 | DAY 14

RIG NO. 58

FUEL @ 8:00

RIG 1.66 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D.	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	203.2	208.4	DC	73	228					
	178	174.0	DC	69	178	5½FH	24	F-1000	Emsco	254
	127	74.35	HW	76	158	4½IF	17	F-1000	Emsco	254
	127	38.07	E3	101	156		133			
	127	39.02	E3	108	156	↓	174	F-1000	Emsco	228.6

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.					¼	5½	¼				1¾															
DAY											8															
EVE.											8															
TOTAL					¼	5½	¼				17¾													¼		

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. / SIZE: 2 Derrick F.I.C.	TMJ - 766074			
8	SCREENS CHANGED ☐ YES ☐ NO	AmJ - 4874			
8	TOP / TOP	Accumair - .36			
8	MIDDLE / MIDDLE				
24	BOTTOM / BOTTOM				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	203	0.84 m
1	Mwpd 150 Sub	203	2.37 m
1	3PT Rm	203	2.45 m
1	3PT Rm	203	3.59 m
1	3PT Rm	203	3.69 m
1	DC Sur	203	3.33 m
5	DC		45.99 m
1	X10		1.40 m
17	DC	178	160.49 m
1	X10		1.31 m
6	HWDP	127	55.12 m
		BHA:	337.56 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	2309.70 m
	KELLY DOWN		14.00 / -.69 m
	TOTAL		2629.57 m
WT. OF DC			44,000 1000 daN
WT. OF STRING			115,000 1000 daN

BIT RECORD

BIT NO.	36CRR
SIZE (mm)	311
IADC CODE	627
MFG.	Reed
TYPE	HP62A
SERIAL NO.	139212
JETS (mm)	3x14 3x14 3x14
DEPTH OUT (m)	
DEPTH IN (m)	2629 - TD
TOTAL METRES DRILLED (m)	Clean out
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	150004	150004 Reame
TORQUE AT BOTTOM	12-15000 ft-lbs	9K Bottom
FILL ON BOTTOM (m)	—	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:30	00:00
DENSITY kg/m³	1625	1640
FUNNEL VIS. - (S/L)	80	117
W.L. (cm³)		10.0
pH	10.5	10.5
PVT m³	87.0	84.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57	TD			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
16500	152	83	152	83

REDUCED PUMP SPEED

8000 @ 2629 @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
T.P. Record		
Mons 18.36		
Cam 17.31		
Diff 1.05		

DRILLER SIGNATURE

Gary Fahnly

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0100	1	6	P.O.O.H. TO 2050m, Flow✓
0100	0115	¼	7	RK Fluc + Ctn TOP Pipe Runs 6 sec/cts
0115	0130	¼	5	Pump P.U. Blow Kelly, Flow✓
0130	0600	4½	6	P.O.O.H. Flow@ 1335m, 710m, out of hole.
0600	0615	¼	23	Blow out mud lines.
0615	0800	1¾	11	Rig up & Log Run #1, FMI, DSI

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage - Boiler Blowdown 3X

BOILER

HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	130000 DAN	Tripping.	1478 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)		
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57	TD			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

R. Robichaud

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0100	0600	5	11	Rig Log #1 FMI-DSI Start in Hole
				0815 - 1115 Restart in Hole
				08 1215 Depth - 2629m
				Check Chains in Drawworks.

NOTES: Crown Saver - Fastline Clamp - Deadline Anchor - Brakes - Linkage

BOILER

HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8				2 Blocks	1951 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)		
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57	TD			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1700	1700	1	11	Log #1 FMI-DSI
1700	2000	3	11	Change out Logging Tools
2000	2400	4	11	Log #2 AKJ-CNL/LDT-GR-Caliper

NOTES: Crown Saver Fastline Clamp Deadline Anchor Boilers Blown Down 3X

BOILER

HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			1429 KPa

C-31
Dec 14-20/80

FOLD HERE →

140083

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Tench

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 00 | MONTH 12 | DAY 13

RIG NO. 58

FUEL @ 8:00

RIG 2.0M | BOILER

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

WEATHER

	TEMPERATURE °C	WIND DIRECTION	ROAD
CURRENT CONDITIONS			

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	174.0	DC	63	178	6 5/8 Reg	24	F-1000	EMSCO	254
	127	74.35	HW	76	158	4 1/2 IF	17	F-1000	EMSCO	254
	127	38.07	E2	101	156		139			
	127	29.02	E2	108	156	↓	174	F-800	EMSCO	308.6

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.				1/2		3/4	5 1/4	1/4		3/4												Hurdle Tools			
DAY				23 1/4			5 1/4															1			
EVE.						3 1/4	4 3/4																		
TOTAL				3/4		3 1/2	15 1/4	1/4		3/4												1			

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. TYPE Derrick F.A.C.	TmJ-465040			
8	SCREENS CHANGED ☐ YES ☑ NO	AmJ-3880			
8	TOP 140 TOP 175	Accumoil-36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit	311	0.36 m
1	Nmdc	240	9.43 m
1	150 Sub		3.37 m
1	3PT Rm	240	2.30 m
1	Nmdc	240	2.89 m
1	3PT Rm	240	3.94 m
1	Sub		
3	DC Jar	203	9.33 m
5	DC		45.99 m
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.12 m
		BHA:	307.56 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	2308.79 m
	KELLY DOWN		12.01 m
	TOTAL		2629.57 m
WT. OF DC			44000 1000 daN
WT. OF STRING			115000 1000 daN

BIT RECORD

BIT NO.	36 CRR
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	
DEPTH IN (m)	2629 TD
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: Tight / Good
TORQUE AT BOTTOM: 15-21 avg 18kft 3%
FILL ON BOTTOM (m): 5 m

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	
PVT m3	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57	TD			

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Trip Report / Strap		
Meas - 18.56 / Strap 2630.63		
Cal - 17.36 / Tally 2629.57		
Diff - 1.22 / Diff 1.06		

DRILLER SIGNATURE

Gary Tatrell

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0045	3/4	6	P.O.O.H. Flow ✓ out of hole.
0045	0145	1	22	Clean & inspect Reamers & BIT lay down MWD
				lay down Restricter sub.
0145	0200	1/4	7	RIG Function Blind rams 6 sec/cls.
0200	0415	2 1/4	6	R.I.H. TO 730m. Flow ✓
0415	0430	1/4	5	Fill Pipe Break Circulation
0430	0515	3/4	9	Slip & cut 20m of Drill line, ✓ Crown Saver.
0515	0730	2 1/4	6	R.I.H. Flow ✓ and Fill Pipe every 500m.
0730	0800	1/2	3	Wash & Ream TO BOTTOM

NOTES: ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage - Boilers Blown down 3x, Held weekly safety meeting

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F		Preparing and Pinch Points	14428 kPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Bit	311	0.36 m
	Nmdc	240	9.43 m
	150 Sub		3.37 m
	3PT Rm	240	2.30 m
	Nmdc	240	2.89 m
	3PT Rm	240	3.94 m
	Sub		
3	DC Jar	203	9.33 m
5	DC		45.99 m
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.12 m
			327.56 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	2302.79 m
	KELLY DOWN		12.01 m
	TOTAL		2629.57 m
WT. OF DC			44000 1000 daN
WT. OF STRING			115000 1000 daN

BIT RECORD

BIT NO.	36 CRR
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	
DEPTH IN (m)	2629 TD
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG:
TORQUE AT BOTTOM:
FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:30
DENSITY kg/m³	1640
FUNNEL VIS. - (S/L)	110
W.L. (cm³)	9.5
pH	10-2
PVT m3	93.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17000	152	80	152	80

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Stan Burgess

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1045	2 3/4	3	CIRC & REAM TO 677m
1045	1600	5 1/4	6	POOH TO 1440 BACK REAM TO 1317
				FLOW CHECK 2105

NOTES: Check Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage - Boiler Blow down 3x

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F		TRIPPING	15233 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Bit	311	0.36 m
	Nmdc	240	9.43 m
	150 Sub		3.37 m
	3PT Rm	240	2.30 m
	Nmdc	240	2.89 m
	3PT Rm	240	3.94 m
	Sub		
3	DC Jar	203	9.33 m
5	DC		45.99 m
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.12 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	2302.79 m
	KELLY DOWN		12.01 m
	TOTAL		2629.57 m
WT. OF DC			44000 1000 daN
WT. OF STRING			115000 1000 daN

BIT RECORD

BIT NO.	36 CRR
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	
DEPTH IN (m)	3639 TD
TOTAL METRES DRILLED (m)	Drilled out
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 15000↑ 15000↓ Rotate
TORQUE AT BOTTOM: 18-15000 ft/lbs 90 RPM Bottom
FILL ON BOTTOM (m): —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	22:30
DENSITY kg/m³	1640
FUNNEL VIS. - (S/L)	112
W.L. (cm³)	10
pH	10.5
PVT m3	844

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Desco	2 SX
Caustic	1 SK
Drispac	1 SK
Starpac	2 SX
Lignite	2.5 K.
Barite	126 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
16500	152	83	152	83

REDUCED PUMP SPEED

Choke 8000 @ 160 tpm @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Tatrell

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1645	3/4	6	POOH 1440m - 1212m Flow ✓ 1212
1645	2000	3 1/4	6	RIH TO 677m
2000	2015	1/4	5	Wash 30m TO BOTTOM NO FILL
2015	2315	3	5	Circulate & Condition mud For logging.
2315	2400	3/4	6	Pump Out TO 2515m, Pull OUT of hole.

Max hookload
Trip ST = 2358 daN
Drill Pipe = 191000 daN

NOTES: ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage - Boiler Blown down 3x

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	150000 daN	Tripping	14428 kPA

C 31

Dec 7-13

FOLD HERE →

140082

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Hiard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 00 | MONTH 12 | DAY 12

RIG NO. 58

FUEL @ 8:00

RIG 119 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BT&C	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	280.4	DC	73	229	7 5/8 Reg				
178	179.0	DC	63	178	5 1/2 FH	24	F-1000	Emsco	254
127	74.35	HW	76	152	4 1/2 IF	17	F-1000	Emsco	254
127	38.07	E3	101	136		138	F-800	Emsco	228.6
127	29.02	E3	108	136	↓	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.		5			2 1/4		1/2																			
DAY		2			1 1/2	4 1/4				1/4																
EVE.					1/2	7 1/4	1/4																			
TOTAL		7			4 1/4	11 3/4	3/4			1/4										1/4						

TOTALS

SHALE SHAKER(S)		RENTALS/SERVICES	MORN	DAY	EVE
NO. 2	TYPE Derrick F.t.c.	TMJ-460944			
SCREENS CHANGED ☑ YES ☐ NO		AMJ-9393			
TOP 140	TOP 175	Accum oil-.036			
MIDDLE 140	MIDDLE 175				
BOTTOM 140	BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	203	0.84 m
1	NBS Sub NMDC		9.43 m
1	150 Sub		2.37
1	SPT Rm		2.43 m
1	NMDC		9.32
1	SPT Rm		2.59 m
1	SS		2.94
3	DC		27.69 m
1	Jar		5.35
5	DC		45.99 m
1	X/O	↓	1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA=	328.18 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	302.79 m
	KELLY DOWN		1.77 m
	TOTAL		2627 m
WT. OF DC	44000	1000 daN	
WT. OF STRING	115000	1000 daN	

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	22
TOTAL HOURS RUN	49 1/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 9000 ↑ 8000 V-dan Rotate
TORQUE AT BOTTOM 10-16000
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:30	01:00	06.00
DENSITY kg/m³	1625	1625	1625
FUNNEL VIS. - (S/L)	80	80	84
W.L. (cm³)	7.2	7.5	7.5
pH	10.5	10.5	10.5
Pvt m³	89.0	91.1	90.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	252 sx
Aktomer HARD	1 SK.
Lignite	3 sx
Caustic	1 SK
Lime	2 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1625	1050	1400

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2626	2629	3	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17700	152	83	152	83

REDUCED PUMP SPEED: 7800 @ 2628m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0245	2 3/4	2	Drill 311mm hole F/2626m-2628m
0245	0300	1/4	20	Sync up MWD Tool
0300	0330	1/2	2	Drill F/2628m-2628.29m
0330	0415	3/4	5	Work & clean Tight hole / Pipe screen.
0415	0545	1 1/2	5	Circulate Repair Wash in Pump #1 discharge line.
0545	0615	1/2	7	R/S Function Bottom Pipe Rams 6 secs.
0615	0800	1 3/4	2	Drill F/2628.29m-2629m

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x, Held Competency Training meeting.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	150 000 DAN	Emergency Response	1533 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Bit Sub		0.84 m
	NMDC		9.43 m
	150 Sub		2.37 m
	SPT Rm		2.43 m
	NMDC		9.32 m
	SPT Rm		2.59 m
3	SS		2.94 m
3	DC		27.69 m
1	Jar		5.35 m
5	DC		45.99 m
1	X/O	178	1.40 m
17	DC		160.44 m
1	X/O		1.31 m
6	HWDP		55.12 m
			328.18 m
80	D.P.	STANDS	m
X	D.P.	SINGLES	302.79 m
	KELLY DOWN		1.77 m
	TOTAL		2627.57 m
WT. OF DC	44000	1000 daN	
WT. OF STRING	115000	1000 daN	

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	2629
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	22
TOTAL HOURS RUN	51 1/4

CUTTING STRUCTURE: T_i 4 | T_o 4 | MDC WT | LOC A | B E | Gage I | ODC CT | Reason Pulled TD | Total Run m/hr. .43

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	11:00
DENSITY kg/m³	1625	1640
FUNNEL VIS. - (S/L)	84	81
W.L. (cm³)	7.8	9.8
pH	10.5	10.5
Pvt m³	91.0	90.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barcol 120	1 sx
Barite	210 sxs
Drispac	1 sx
Starpak	2 sxs
Lignite	3 sxs
Sod Sulf	1 sx
Biocide	1 PL
Corrox	1 PL

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2629	2629.57	.5	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17700	152	83	152	83

REDUCED PUMP SPEED: 7600 @ 163 @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2617.57	7.1	313.4

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1000	2	2	DRILL F/2629m - 2629.57m
1000	1130	1 1/2	5	CIRC BTMS UP
1130	1145	1/4	10	SURVEY
1145	1600	4 1/4	6	POOH BACK REAM TO 2340

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°		Connections	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	2629
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	22
TOTAL HOURS RUN	51 1/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	
Pvt m³	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 sxs
Caustic	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2617.57				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1915	3 1/4	6	BACK REAM 2340m - 2117m
1915	2015	1	6	P.O.O.H. TO 1940m
2015	2030	1/4	7	R/S Function Annular 15 secs.
2030	2100	1/2	5	Pump Pill Blowout Kelly, Flow.
2100	2400	3	6	P.O.O.H., Flow @ 1300m, 500m

maximum hookload
most - 135800
Drill Pipe - 191000

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & linkage. Boiler Blown down 3x, Held weekly meeting

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	150 000 DAN	Breaking pump [illegible]	15396 KPA

FOLD HERE →

140081

LICENCE NO.	WELL NAME AND NO.
1900	Canadian Forest etal North Liard C31
OPERATOR	**CONTRACTOR**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION	**UNIQUE ID.**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**

DAILY CHECKS — OPR. / R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 20 | MONTH 12 | DAY 11

RIG NO. 58

FUEL @ 8:00

RIG 1.13 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BT&C	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	203	203.7								
	178	174.0	DC	63	178	5H40	24	F-1000	Emsco	254
	127	78.35	NC	76	158	4½ IF	17			
	127	88.07	E3	101	156		138	F-1000	Emsco	254
	127	89.03	E2	108	156	↓	174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.		12¾			2¾		½																			
DAY		5¾	½		11½					¼																
EVE.		5¼	1		3¼																					
TOTAL		15¾	1½		6		½			¼																

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 | TYPE Derrick Fl.S.

SCREENS CHANGED ☑ YES ☐ NO

TOP 140	TOP 175
MIDDLE 140	MIDDLE 175
BOTTOM 140	BOTTOM 175

RENTALS/SERVICES

	MORN	DAY	EVE
TmJ-458347			
AmJ-6796			
Accumoik-.33			

DRILLING ASSEMBLY (At End of Tour)

NO.			O.D. mm	LENGTH
1	1	BIT	200	.36 .84 m
1	1	Rs Sub Nmdc		.69 9.43 m
1	1	150 Sub 3PT Rm		2.37 2.43 m
1	1	Nmdc 3PT Rm		9.39 2.59 m
1	3	3½ DC		3.94 27.69 m
1	5	Jar DC		5.33 45.99 m
1	1	X/O	↓	1.40 m
17		DC	178	160.44 m
1		X/O		1.31 m
6		HWDP	127	55.12 m
			BHA:	338.18 m
80		D.P.	STANDS	m
X		D.P.	SINGLES	2302.79 m
		KELLY DOWN		4.97 m
		TOTAL		2643.00 m
WT. OF DC			44000	1000 daN
WT. OF STRING			115000	1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP62A
SERIAL NO.	8P5212
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	15
TOTAL HOURS RUN	33¼

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	9000↑ 8000↓ DAN Rotate
TORQUE AT BOTTOM	10-15000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:30	04:30	06:00
DENSITY kg/m³	1625	1625	1620
FUNNEL VIS. - (S/L)	97	97	90
W.L. (cm³)	8.5	9.0	9.4
pH	10.5	10.5	10.5
PVT m³	91.6	92.7	83.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	252 Sx
Lime	25x
Caustic	15k
Desco	25x
Spirit X	1PL
BioCide	1PL
Sod Sulfite	15k.
Alkomer 110Rd.	25x
Lignite	35x

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2620	2623	3	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Packer 17700	152	83	152	83

REDUCED PUMP SPEED

Choke 8200 @ 2621m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patuk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0115	1¼	2	Drill 311mm hole F/2620m-2621m
0115	0245	1½	5	Work & Clean Tight hole.
0245	0315	½	7	R/S, Function Annular 19secs √RSPP, √Screen.
0315	0345	½	5	Work & clean 1m, TO BOTTOM
0345	0715	3½	2	Drill F/2621m-2623m
0715	0800	¾	5	CIRC BTM Hole Sample

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage
Boiler Blown down 3x, √ Fire extinguishers

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350 °F	150000 daN	Work safe in the cold	1533 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.			O.D. mm	LENGTH
		BIT		.64 m
		Rs Sub Nmdc		9.23 m
		150 Sub 3PT Rm		2.37 2.43 m
		Nmdc 3PT Rm		9.39 2.59 m
3		3½ DC		3.94 27.69 m
5		Jar DC		5.33 45.99 m
17		DC	178	160.44 m
6		HWDP	127	55.12 m
			BHA:	338.18 m
80		D.P.	STANDS	m
X		D.P.	SINGLES	2302.79 m
		KELLY DOWN		6.97 m
		TOTAL		2624 m
WT. OF DC			44000	1000 daN
WT. OF STRING			115000	1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	627
MFG.	REED
TYPE	HP62A
SERIAL NO.	8P5212
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	17
TOTAL HOURS RUN	39

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	9000↑ 8000↓ NOT
TORQUE AT BOTTOM	10/15000 Flies
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	14:00	16:00
DENSITY kg/m³	1620	1620	1620
FUNNEL VIS. - (S/L)	90	87	86
W.L. (cm³)	9.5	9.5	8.0
pH	10.2	10.2	11.0
PVT m³	83.7	89.9	92.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Perkolite	2 5x5
Sod Sulfite	15x
Corinox	1PL
Biocide	1PL
Lime	6x5
Caustic	2x5
DESCO	2 5x5 +2
BARITE	336 5x5

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
3	1620	1620	1590

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2622	2624	2	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17400	152	83	152	83

REDUCED PUMP SPEED

8100 @ 2621 @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2623.37	7.4	316.0

DRILLER SIGNATURE

Lee Bunyan

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0915	1¼	5	CIRC BTM Hole Sample
0915	0930	¼	10	Survey
0930	0945	¼	5	Circ & Work Pipe
0945	1015	½	5	Ream TO BTM 2meters
1015	1600	5¾	2	Drill F/2622m-2624m

GREASE CROWN + BLOCKS

NOTES Check Crown Saver, Fastline Clamp, Deadline Anchor, Brakes, Linkage
Boiler Blow down 3x

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	170 1000	WATCHDOG MTG	1568 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.			O.D. mm	LENGTH
1	1	BIT	200	.36 .84 m
1	1	Rs Sub Nmdc		.69 9.43 m
1	1	150 Sub 3PT Rm		2.37 2.43 m
1	1	Nmdc 3PT Rm		9.39 2.59 m
1	3	3½ DC		3.94 27.69 m
1	5	Jar DC		5.33 45.99 m
1		X/O	↓	1.40 m
17		DC	178	160.44 m
1		X/O		1.31 m
6		HWDP	127	55.12 m
			BHA:	338.18 m
80		D.P.	STANDS	m
X		D.P.	SINGLES	2302.79 m
		KELLY DOWN		4.17 m
		TOTAL		2626.80 m
WT. OF DC			44000	1000 daN
WT. OF STRING			115000	1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	627
MFG.	REED
TYPE	HP62A
SERIAL NO.	8P5212
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	19
TOTAL HOURS RUN	44¼

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	9000↑ 8000↓ Rotate
TORQUE AT BOTTOM	10-16000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	20:00 18:00	21:00	24:00
DENSITY kg/m³	1620	1620	1620
FUNNEL VIS. - (S/L)	110	109	90
W.L. (cm³)	8.2	7.2	9.5
pH	10.5	10.5	10.5
PVT m³	93.4	86.5	87.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lignite	7 5x5
STARPAK	6 5x5
DRISPAC-R	3 5x5
Pot. Sulph	56 5x
Corinox	1 pl
Biocide	1 pl
Sod Sulfite	1 5K
Desco	2 5x

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2624	2626	2	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Packer 17300	152	83	152	83

REDUCED PUMP SPEED

Choke 7400 @ 85 @ 100%

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patuk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1630	½	5	CIRC BTM Hole Sample
1630	1645	¼	3	Ream 2m TO BTM
1645	1730	3¼	5	WORK PIPE + CIRC CHANGE HEAD No.3
1730	1815	¾	3	Ream 2m TO BTM
1815	2215	4	2	Drill F/2624m-2626m
2215	2245	½	5	Circulate, Change washed Sat & valve in Pump #2
2245	2400	1¼	2	Drill F/2626m-2626.80

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage
Boiler Blown down 3X, Held Completely Training, meeting

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350 °F	150000 daN	Emergency Response	1568 KPA

FOLD HERE →

140080

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest Etal North Liard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-19330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Terry Hallberg | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 86 | MONTH 12 | DAY 10

RIG NO. 58

FUEL @ 8:00

RIG 1.69 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	174.0	DC	63	178	5 1/2 FH	24	F-1000	Emsco	254
127	74.35	HW	76	158	4 1/2 IF	17	F-1000	Emsco	254
127	39.07	E75	101	156	↓	132			
127	39.09	E75	108	156	↓	174	F-900	Emsco	228.6

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.		6 1/4			3/4		1/2			1/2																
DAY		7 3/4			1/4																					
EVE.		8																								
TOTAL		22			1		1/2			1/2																

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 | TYPE Derrick F.H.C.

SCREENS CHANGED ☐ YES ☒ NO

TOP #2 140 | TOP #3 175

MIDDLE 140 | MIDDLE 175

BOTTOM 140 | BOTTOM 175

RENTALS/SERVICES

	MORN	DAY	EVE
TmJ-457311			
AmJ-5760			
Accumoil-.33			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	203	0.84 m
1	RES 306		0.62 m
1	NMDC		9.43 m
1	150 SUB		0.37 m
1	3PT Rm		2.43 m
1	NMDC		9.32 m
1	3PT Rm		2.59 m
3	STB		2.94 m
1	Jar		9.39 m
5	DC		45.90 m
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.12 m
		BHA=	328.18 m
80	D.P.	STANDS	2293.53 m
—	D.P.	SINGLES	— m
	KELLY DOWN		7.71 m
	TOTAL		2614.00 m
WT. OF DC		44000	1000 daN
WT. OF STRING		115000	1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	627
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	7
TOTAL HOURS RUN	12/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 9000 ↑ 8000 ↓ dan Rotate

TORQUE AT BOTTOM 10-15000 FT/Lb

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:30
DENSITY kg/m³	1635	1635	1640
FUNNEL VIS. - (S/L)	107	102	107
W.L. (cm³)	9.0	9.0	9.5
pH	10.5	10.5	10.5
PvT m3	81.5	81.5	84.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod. Sulfite	15k.
Caustic	1P1
Biocide	1P1
Lime	25X
Alkomer RD10	25X
Pot Sulph.	56sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2610	2614	4	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17700	152	83	152	83

REDUCED PUMP SPEED: 8100 @ 85 @ 1611m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2583.62	6.3	321.5
2603.37	7.2	315.1

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	01:00	1	2	Drill 311mm hole F/2610 m - 2611m
01:00	01:30	1/2	7	R/S, Function Annular 19 secs √ RKB?
01:30	01:45	1/4	10	Survey, Check Shot @ 2583.62 m
01:45	02:00	1/4	5	Work Pipe, Clean Pipe Screen, make Connection
02:00	05:00	3	2	Drill F/2611m - 2613m
05:00	05:15	1/4	10	Survey @ 2603.37 m
05:15	05:45	1/2	5	Circulate, Change blown head in Pump #1
05:45	08:00	2 1/4	2	Drill F/2613 m - 2614 m

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	150000 DAN	Slips Drills	1463 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	203	0.84 m
1	RES 306		0.62 m
1	NMDC		9.43 m
1	150 SUB		0.37 m
1	3PT Rm		2.43 m
1	NMDC		9.32 m
1	3PT Rm		2.59 m
3	STB		2.94 m
1	Jar		9.39 m
5	DC		45.90 m
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.12 m
		BHA=	328.18 m
80	D.P.	STANDS	2293.53 m
—	D.P.	SINGLES	— m
	KELLY DOWN		3.71 m
	TOTAL		2618 m
WT. OF DC		44000	1000 daN
WT. OF STRING		115000	1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	627
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	11
TOTAL HOURS RUN	20 1/2

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 9000 ↑ 8000 ↓ dan Rotate

TORQUE AT BOTTOM 10-15000 FT/Lb

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:30	14:00	16:00
DENSITY kg/m³	1645	1630	1630
FUNNEL VIS. - (S/L)	105	125	130
W.L. (cm³)	12.0	11.0	12.0
pH	10.0	10.0	11.3
P.V.T.m3	82.0	84.4	84.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	1 PL
Sod. Sulfite	1 sx
Biocide	1 PL
Caustic	2 sx
Drispac	3 sxs
Starfak	6 sxs
Lignite	9 sxs
Desco	9 sxs+2

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2611	2618	7	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17700	152	83	152	83

REDUCED PUMP SPEED: 8700 @ 83 @ 2617

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Ken Bergeson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1500	7	2	Drill 2614 m - 2617 m
1500	1515	1/4	5	Work Pipe & Check Screen
1515	1600	3/4	2	Drill 2617m - 2618m
				H2O BOP. H2S Drill
				Check Flare Line Ignitor (OK)

NOTES: Check Crown Saver - Fastline Clamp - Deadline Anchor Brakes & Linkage. Boiler Blow down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	340°		Weekly Safety	1463 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	203	0.84 m
1	RES 306		0.62 m
1	NMDC		9.43 m
1	150 SUB		0.37 m
1	3PT Rm		2.43 m
1	NMDC		9.32 m
1	3PT Rm		2.59 m
3	STB		2.94 m
1	Jar		9.39 m
5	DC		45.90 m
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.12 m
		BHA=	328.18 m
80	D.P.	STANDS	2293.58 m
—	D.P.	SINGLES	— m
	KELLY DOWN		1.06 m
	TOTAL		2620.70 m
WT. OF DC		44000	1000 daN
WT. OF STRING		115000	1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	627
MFG.	REED
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	13
TOTAL HOURS RUN	28/2

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 9000 ↑ 8000 ↓ dan Rotate

TORQUE AT BOTTOM 10-15000 FT/Lb

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:30	24:00
DENSITY kg/m³	1620	1625	1625
FUNNEL VIS. - (S/L)	130	97	92
W.L. (cm³)	7.0	9.2	8.5
pH	11.5	10.5	10.5
PvT m3	85.0	88.2	90.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alkomer RD10	3 sxs
Lime	2 sxs
Pot Sulph.	56 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2618	2620	2	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
18100	152	83	152	83

REDUCED PUMP SPEED: 8200 @ 85 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Shawn Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2400	8	2	Drill 2618 m - 2620 m
				TOP Drive Maximum Torque Limit Set @ 20000 ft
				Maximum Hook load Limits
				Most = 235800 daN
				Drill Pipe = 191000 daN

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	150000 daN	Working in the Cold	1498 KPA

FOLD HERE →

140079

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest Etal North Lord C31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**
	Dave Sauck

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial

(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial
(3) Mast Inspection Before Raising or Lowering	Initial
(4) Crown Saver Checked	Initial
(5) Motor Kills checked	Initial

YEAR	MONTH	DAY
00	12	09

RIG NO. 58

FUEL @ 8:00

RIG 80 BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228	258.4	DC	73	228	7 5/8 REG	4			
	178	174.8	DC	63	178	5 H90	24	F-1000	Emsco	254
	127	74.35	HW	76	159	4½ IF	17	F-1000	Emsco	254
	127	38.07	E3	101	156		138			
	127	29.02	E2	108	156	↓	174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 HANDLE TOOLS	24 SLIP & CUT DRILL LINE	25	26
	MORN.						4	1/4													1/2		2	1 1/4			
	DAY			3 3/4			3 3/4	1/4			1/4															
	EVE.		6 1/2			1 1/2																				
	TOTAL		6 1/2	3 3/4		1 1/2	7 3/4	1/2			1/4										1/2		2	1 1/4			

TOTALS

MORN.	8
DAY	8
EVE.	8
TOTAL	24

SHALE SHAKER(S)

NO. 2 TYPE Derrick F.L.G.

SCREENS CHANGED ☐ YES ☐ NO

#1 TOP	#1 BOTTOM	#2 TOP	#2 BOTTOM
140	140	175	175

RENTALS/SERVICES

TmJ-457036
AmJ-5485
Accum oil-.33

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB	228	36.84 m
1	RES SUB NMDC		6.69 / 43.53 m
1	BS SUB SFT RM		4.35 / 48.43 m
1	NMDC SFT RM		9.32 / 57.75 m
3	3PTS DC		2.94 / 60.69 m
5	JAR DC		5.33 / 66.02 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA:	328.18 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC	44000		1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5213
JETS (mm)	3x19.0
DEPTH OUT (m)	
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	Trip Record
DENSITY kg/m³	meas-1881
FUNNEL VIS. - (S/L)	cal-1662
W.L. (cm³)	DIFF-2.19
pH	
PVT m³	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2607				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Pahula

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0200	2	22	Clean & Inspect Reamers, Pull MWD, Change BITS
				Inspect mule shoe and change out, Flow ✓
0200	0515	3¼	6	R.I.H., Change Corrosion Rings, R.I.H. to 730m
0515	0530	¼	7	RS, Function Bottom pipe Rams 6 secs
0530	0645	1¼	23	Change Wash Pipe on Swivel
0645	0715	½	20	Test MWD
0715	0800	¾	6	R.I.H

NOTES √Crown Saver, Fastline Clamp Deadline Anchor Brakes & Linkage.
Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350		Tripping	1498 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB	228	36.84 m
1	RES SUB NMDC		6.69 / 43.53 m
1	BS SUB SFT RM		4.35 / 48.43 m
1	NMDC SFT RM		9.32 / 57.75 m
3	3PTS DC		2.94 / 60.69 m
5	JAR DC		5.33 / 66.02 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA:	328.18 m
77	D.P.	STANDS	2261.86 m
X	D.P.	SINGLES	752 m
	KELLY DOWN		3.76 m
	TOTAL		2607. m
WT. OF DC	41000		1000 daN
WT. OF STRING	115000		1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 20 ton ↑ 20 ton ↓ Rot.
TORQUE AT BOTTOM 4/- 22,000 FT/LBS
FILL ON BOTTOM (m) 10 m

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	17:00
DENSITY kg/m³	1645
FUNNEL VIS. - (S/L)	112
W.L. (cm³)	10.5
pH	10.0
PVT m³	77.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	2 SXS
Biocide	1 PL
Corrosion	1 PL
DESCO	2 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2607				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14800	152	80	152	80

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Les Burgeson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0815	¼	7	TOP DRIVE SERVICE AND 2000
0815	0915	1	6	RIH TO 1769m
0915	0930	¼	10	TEST MWD TOOL
0930	1100	1½	6	RIH TO 2215m TAG BRIDGE
1100	1145	¾	3	REAM BRIDGE @ 2215 LAY DOWN 2 SINGS
1145	1300	1¼	6	RIH TO 2574m
1300	1600	3	3	REAM 10m FILL TO BTM.

NOTES Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.
Boiler Blew down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB	228	36.84 m
1	RES SUB NMDC		6.69 / 43.53 m
1	BS SUB SFT RM		4.35 / 48.43 m
1	NMDC SFT RM		9.32 / 57.75 m
3	3PTS DC		2.94 / 60.69 m
5	JAR DC		5.33 / 66.02 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA:	328.18 m
79	D.P.	STANDS	m
XX	D.P.	SINGLES	2283.96 m
	KELLY DOWN		1.54 m
	TOTAL		2610.60 m
WT. OF DC	44000		1000 daN
WT. OF STRING	115000		1000 daN

BIT RECORD

BIT NO.	36C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	Reed
TYPE	HP62A
SERIAL NO.	BP5212
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2607
TOTAL METRES DRILLED (m)	3
TOTAL HOURS RUN	6½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 110000 ↑ 60000 ↓ daN Rotate
TORQUE AT BOTTOM 10-15000 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:30	22:00	23:30
DENSITY kg/m³	1645	1640	1635
FUNNEL VIS. - (S/L)	110	108	115
W.L. (cm³)	10.4	10.8	8.8
pH	10.0	10.5	10.5
PVT m³	78.2	78.6	78.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2607	2610	3	55	27

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Rotate 17700	152	83	152	83

REDUCED PUMP SPEED

8100 @ 2609 m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Pahula

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1930	3½	2	BREAK IN BIT @ DRILL 2607m-2609
1930	1945	¼	5	Work Pipe, Check Pipe Screen,
1945	2100	1¼	5	Circulate, Repair Washed Valves & Seats in Pumps #1
2100	2400	3	2	Drill F/2609m-2610.60m
				TOP Drive Torque Limit Set @ 21000 FT/Lb
				Maximum hookload Limits
				Most - 235800 daN
				Drill Pipe - 191000 daN

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.
Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	150000 daN	H2S Drills	1428 KPA

FOLD HERE →

140078

LICENCE NO.: 1900
WELL NAME AND NO.: Canadian Forest et al North Liard C31
OPERATOR: Canadian Forest Oil
CONTRACTOR: Akita Drilling LTD
SURFACE LOCATION: 300-C31-6040-12330-0
UNIQUE ID.: 300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:
SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lucas

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Slick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 00 | MONTH 12 | DAY 03
RIG NO. 58
FUEL @ 8:00
RIG 1.15 | BOILER

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	104.2	BT&C	K55	55	711.20	6.47	710

WEATHER		DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
TEMPERATURE °C		203.2	178	DC	73	203	7-5/8 REG	24	F-1000	Emsco	254
CURRENT CONDITIONS		178	174.8	DC	63	178	6-5/8 H90				
WIND DIRECTION		127	74.55	HW	76	158	4½ IF	17/338	F-1000	Emsco	254
ROAD		127	69.27	E3	101	184					
		127	34.08	E2	108	156	↓	174	F-800	Emsco	228.6

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.
1	MORN.		6¾			1¼		1/4			¾											
2	DAY					1½	6¼															
3	EVE					1	6¾	1/4														
TOTAL			6¾			3¾	13	½			¾											

SHALE SHAKER(S)

NO. 2 TYPE Derrick F.L.G.
SCREENS CHANGED ☐ YES ☐ NO

8	TOP 140	TOP 175	
8	MIDDLE 140	MIDDLE 175	
8	BOTTOM 140	BOTTOM 175	
24			

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ-455819			
AmJ-4268			
Accumoir-.33			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	228	.84 m
1	Res Sub Nmdc		.69 2.43 m
1	Ko Sub		2.37
1	3PT Rm		2.43 m
1	Nmdc		9.34
1	3PT Rm		2.59 m
1	Sub		2.91 27.69 m
3	DC		
5	Jar		5.33 45.99 m
	DC		
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.13 m
		BHA =	328.18 m
79	D.P.	STANDS	m
XX	D.P.	SINGLES	2284.16 m
	KELLY DOWN		9.34 m
	TOTAL		2608.00 m
WT. OF DC		44000	1000 daN
WT. OF STRING		115000	1000 daN

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	30
TOTAL HOURS RUN	76

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	OOC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 12000 ↑ 9000 ↓ DAN Rotate
TORQUE AT BOTTOM 9-15000 FT/Lb
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	12:00	03:00	06:00
DENSITY kg/m³	1630	1630	1630
FUNNEL VIS. - (S/L)	95	95	96
W.L. (cm³)	10.5	10.0	9.5
pH	10.5	10.5	10.5
PVT m³	89.7	90.2	89.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Percoltrol	1sk
Sod. Sulf	1sk.
Drispac	1sk
Stoper	2sx
Lignite	1sk.
Barite	25x

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2605	2608	3	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 3 LINER SIZE (mm)	PUMP NO. 3 S.P.M.
17400	152	95	127	110

REDUCED PUMP SPEED: 1200 @ 100 @ 110

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	03:15	3¼	2	Drill 311mm hole F/2605m - 2606.40m
03:15	03:30	¼	5	Work Pipe & Clean Pipe Screen.
03:30	03:45	¼	7	RS, Function Annular 19sec Ltg, √RSPP
03:45	06:45	3	2	Drill F/2606.40m - 2608.84m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage
Boiler blowdown 3x, Held environmental meeting.

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
Gary Patrick	8	10.3	350°F	135000 DAN	Slip & Cut Line	1498 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Bit	228	.84 m
	Nmdc		1.63 m
	Sub		2.43 m
	Sub		2.37 m
	Nmdc		9.34 m
3	DC		2.59 m
3	Jar		27.69 m
	DC		5.33 m
1	X10		1.40 m
17	DC	178	160.44 m
1	X10		1.31 m
6	HWDP	127	55.13 m
		BHA	328.17 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3x19.0
DEPTH OUT (m)	2577
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	30
TOTAL HOURS RUN	76

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	OOC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	126sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2607				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17400	152	95	127	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Leo Kluspoon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0930	1½	5	CIRC BTMS UP
0930	1600	6½	6	POOH BACKREAM 2607m - 2198m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage
Boiler Blow down 3x

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
Leo Kluspoon	8	10.5	350	130,000	ENVIRONMENTAL	1498 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3x19.0
DEPTH OUT (m)	2607
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	30
TOTAL HOURS RUN	76

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	OOC	Reason Pulled	Total Run m/hr.
4	4	WT	A	E	I	CT	HR	39

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH	PVT 3		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	84SK
Lignite	1SK.

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2607				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	153		153	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Leo Kluspoon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1830	2½	6	BACK REAM 2198m TO 2032 m
1830	1900	½	6	Flow ck Pooh 5 stds to 1865m
1900	1930	½	5	Circ & Hem pipe. Flow ck
1930	2100	1½	6	P.O.O.H. from 1860m - 1130m. Flow ck
2100	2115	¼	7	RS. Function TOP PIPE Rams, Esd's ect.
2115	2145	½	5	Pump Pill 32
2145	2400	2¼	6	P.O.O.H. F/1130m - To 710m. Flow ck, Trouble HW.

NOTES √Crown Saver Fastline Clamp Deadline Anchor Brakes & Linkage
Boiler Blown down 3x

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
Gary Patrick	8	10.5	350°F	150000 DAN	TRIPPING	1498 kPa

FOLD HERE →

140077

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Liard C-31

OPERATOR:	CONTRACTOR:
Canadian Forest Oil Ltd	Akita Drilling Ltd
SURFACE LOCATION:	UNIQUE ID.:
300 C31 6040 12330 0	300 C31 6040 12330 0
SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]	SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial [initialled] — Initial [initialled]
(2) Detailed Inspection-Weekly (using checklist) — Initial — Initial [initialled]
(3) H²S Signs Posted (if required) — Initial [initialled] — Initial [initialled]
(4) Well License & Stick Diagram Posted — Initial [initialled] — Initial [initialled]
(5) Flare Lines Staked — Initial [initialled] — Initial [initialled]
(6) BOP Drills Performed — Initial — Initial [initialled]
(7) Visually inspect BOP's - Flarelines & Degasser Lines — Initial [initialled] — Initial [initialled]

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial [initialled]
(5) Motor Kills checked — Initial

YEAR	MONTH	DAY
2000	12	07

RIG NO. 56

FUEL @ 8:00 — RIG 1.17 — BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	711.21	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228		DC				1,4			
178	174.8	DC			5 H90	17	F-1000	Emsco	254
127	74.5	HW	76				F-1000	Emsco	254
127	38.07	E3	101		4½ IF	175	F-800	Emsco	228.6
127	29.02	E2	108			174			

TIME - HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTALS
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL. LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.						
MORN.		7			3/4		1/4																				8
DAY		3 1/4			4 3/4																						8
EVE.		6 3/4			3/4		1/4			1/4																	8
TOTAL		17			6 1/4		1/2			1/4																	24

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLC
SCREENS CHANGED ☐ YES ☒ NO

	#1	#2
TOP	140	175
MIDDLE	140	175
BOTTOM	140	175

RENTALS/SERVICES (MORN / DAY / EVE)

TIMT-453386
AIMT-1835
Accum Oil .35

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub		.36 .84 m
1	Res Sub NMDC		.68 9.43 m
1	150 Sub 3PT RM		2.37 2.43 m
1	NMDC 3PT RM		9.32 2.59 m
1 3	S/S DC	228	2.94 27.69 m
1 5	JAR DC	228	5.33 45.99 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA	328.18 m
79	D.P.	STANDS	m
XX	D.P.	SINGLES	2284.16 m
	KELLY DOWN UP		10.57 m
	TOTAL		2601.77 m
	WT. OF DC	44000	1000 daN
	WT. OF STRING	115000	1000 daN

BIT RECORD

BIT NO.	35C	
SIZE (mm)	311	
IADC CODE	6 2 7	
MFG.	REED	
TYPE	HP62A	
SERIAL NO.	CK2686	
JETS (mm)	3 X 19.0	
DEPTH OUT (m)	—	
DEPTH IN (m)	2577	
TOTAL METRES DRILLED (m)	24	
TOTAL HOURS RUN	59 1/4	

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 15000↑ - 10000↓
TORQUE AT BOTTOM 9-15000 FT/Lbs
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1625	1625	1630
FUNNEL VIS. - (S/L)	82	81	83
W.L. (cm³)	11.0	11.0	8.0
pH	10.5	10.5	10.5
P.V.T	88.8	90.0	90.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	252 sx
Drispac	2 sx
Starpak	4 sx
Conivex	1 pl
Biocide	1 pl
Lignite	4 sx
Alcomer 110	2 sx

SOLIDS CONTROL

DESILTER — HOURS RUN / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)
CENTRIFUGE #1 — HOURS RUN 0 / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)
CENTRIFUGE #2 — HOURS RUN 0 / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2599	2601	2	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 2 LINER SIZE (mm)	S.P.M.
17800	152	83	152	83

REDUCED PUMP SPEED: 6900 @ @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0600	6	2	DRILL 2599 m - 2601 m
0600	0615	1/4	7	R/S FUNCTION TOP PIPE 8 SEC C/S
0615	0715	1	2	DRILL 2601 m - 2601.78 m
0715	0800	3/4	5	Pump #2 down, Circulate & hook up Pump #3

NOTES ✓ CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR
BOILERS BLOWN DOWN 3X

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	155000 DAN	HAND TOOLS	KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	228	.36 .84 m
1	Res Sub NMDC	↓	.62 9.42 m
1	150 Sub 3PT RM		2.32 2.43 m
1	NMDC 3PT RM		9.33 2.59 m
1 3	S/S DC		2.94 27.69 m
1 5	Jar DC		5.33 45.99 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA:	328.18 m
79	D.P.	STANDS	m
XX	D.P.	SINGLES	2284.16 m
	KELLY DOWN UP		10.34 m
	TOTAL		2602 m
	WT. OF DC	44000	1000 daN
	WT. OF STRING	115000	1000 daN

BIT RECORD

BIT NO.	35C	
SIZE (mm)	311	
IADC CODE	6 2 7	
MFG.	Reed	
TYPE	HP62A	
SERIAL NO.	CK2686	
JETS (mm)	3X19.0	
DEPTH OUT (m)		
DEPTH IN (m)	2577	
TOTAL METRES DRILLED (m)	25	
TOTAL HOURS RUN	62 1/2	

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10000↑ 7000↓ DAN Rotate
TORQUE AT BOTTOM 9-15000 FT/Lb
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME		12:00	
DENSITY kg/m³		1630	
FUNNEL VIS. - (S/L)		80	
W.L. (cm³)		8.0	
pH		10.5	
PVT m³		86.4	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER — HOURS RUN / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)
CENTRIFUGE #1 — HOURS RUN 0 / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)
Centrifuge #2 — HOURS RUN 0 / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2601	2602	1	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 3 LINER SIZE (mm)	S.P.M.
17600	152	95	127	110

REDUCED PUMP SPEED: Choke 7000 @ 80 @ 2601m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1130	3 1/2	5	Circulate & hook up Pump #3
1130	1245	1 1/4	5	Work & Clean hole TO Bottom.
1245	1600	3 1/4	2	Drill 311 mm hole F/ 2601.77 m - 2602.79

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.
Boiler Blowndown 3x

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	155000 DAN	Pinch Points	1498 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Bit Sub		.84 m
	Res Sub NMDC		9.42 m
	150 Sub 3PT RMR		2.43 m
	NMDC 3PT RMR		2.59 m
3	S/S DC		27.69 m
5	JAR DC		45.99 m
17	X/O DC		160.44 m
6	HWDP		55.12 m
		BHA	328. m
			m
			m
79	D.P.	STANDS	m
XX	D.P.	SINGLES	2284.16 m
	KELLY DOWN		7.14 m
	TOTAL		2605.30 m
	WT. OF DC	44 000	1000 daN
	WT. OF STRING	115000	1000 daN

BIT RECORD

BIT NO.	35C	
SIZE (mm)	311	
IADC CODE	6 2 7	
MFG.	REED	
TYPE	HP62A	
SERIAL NO.	CK 2686	
JETS (mm)	3 x 19.0	
DEPTH OUT (m)	—	
DEPTH IN (m)	2577	
TOTAL METRES DRILLED (m)	28	
TOTAL HOURS RUN	69 1/4	

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10000↑ 7000↓
TORQUE AT BOTTOM 9-15000 FT/LBS
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	17:00	20:00	22:00
DENSITY kg/m³	1640	1640	1630
FUNNEL VIS. - (S/L)	80	80	93
W.L. (cm³)	10.0	14.0	11.5
pH	10.0	10.0	10.0
P.V.T m³	89.3	89.9	90.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
DRISPAC	1 SX
STARPAK	2 SXS
LIGNITE	1 SX
CAUSTIC	4 SXS

SOLIDS CONTROL

DESILTER — HOURS RUN / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)
CENTRIFUGE #1 — HOURS RUN 0 / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)
Centrifuge #2 — HOURS RUN 0 / INTAKE DENSITY (kg/m) / OVERFLOW DENSITY (kg/m) / UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2602	2605	3	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 2 LINER SIZE (mm)	S.P.M.
17600	152	95	127	110

REDUCED PUMP SPEED: 7200 @ 2603 @ 110

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2594.67	7.0	319.0

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1815	2 1/4	2	DRILL 311 mm HOLE 2602.79 m - 2603.6
1815	1830	1/4	5	WORK PIPE & CLEAN SCREEN
1830	1845	1/4	10	SURVEY
1845	1900	1/4	2	DRILL 2603.6 - 2603.8
1900	1930	1/2	5	WORK PIPE - CIRC - CHANGE HEAD No 1
1930	2345	4 1/4	2	DRILL 2603.8 -
2345	2400	1/4	7	R/S Function Bottom Pipe Rams 6 Secs
				Maximum Hook Loads
				mast - 235800 daN
				Drill Pipe - 191000 daN

NOTES CHECK CROWN SAVER - FASTLINE CLAMP - DEADLINE ANCHOR - BRAKES LINKAGE
Boiler Blow down 3X

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	340°	155000 DAN	Traction Motors	1498 KPA

FOLD HERE →

140076

LICENCE NO.	WELL NAME AND NO.
1900	Canadian Forest et al North Lvrd c-31
OPERATOR	**CONTRACTOR**
Canadian Forest Oil LTD	Akita Drilling LTD
SURFACE LOCATION	**UNIQUE ID.**
300 c-31 to/to 123300	300 c31 10/10 123300
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
Hayley Mc	Bennett

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR	MONTH	DAY
2006	12	06

RIG NO. 56

FUEL @ 8:00

RIG 125 | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	317.99	106.2	IPSCO	K55	55	711.20	1.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	194.8	DC	63	196	SHRC	12			
	127	74.24	HW	76	158	4½IF	36	F-1600	EMSCO	254
	127	38.07	E75	101	158	4½IF	136	F-1600	EMSCO	254
	127	29.02	E75	108	XL	X	174			

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.		7¼			½		¼																			
	DAY		7¼			¼		¼			¼																
	EVE.		7½			¾																				
	TOTAL		21¾			1.5		½			¼																

TOTALS

	8
	8
	8
	24

SHALE SHAKER(S)

NO. 2 TYPE DERRICK F.L.C.

SCREENS CHANGED ☐ YES ☒ NO

TOP 140	TOP 175
MIDDLE 140	MIDDLE 175
BOTTOM 140	BOTTOM 175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 45304			
AMJ 1493			
Accum Cl .35			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D. mm	LENGTH
1	BIT	.216	.64 m
1	RES SUB	.172	4.43 m
1	NMDC		
1	BC SUB	2.37	2.43 m
1	3PT RM		
1	NMDC	9.32	2.59 m
1	3PT RM		
3	DC	228	27.65 m
5	JAR		45.93 m
	DC	228	
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA =	328.18 m
79	D.P.	STANDS	m
X	D.P.	SINGLES	2274.64 m
	KELLY DOWN		10.07 m
	TOTAL		2592.75 m
WT. OF DC		44000	1000 daN
WT. OF STRING		115000	1000 daN

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	REED
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3X14.0
DEPTH OUT (m)	—
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	15
TOTAL HOURS RUN	37¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 15000↑ 10000↓

TORQUE AT BOTTOM 9-15000 FT/Lbs

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1630	1630	1630
FUNNEL VIS. - (S/L)	83	85	83
W.L. (cm³)	9.5	9.5	8.5
pH	10.5	10.5	10.5
P.V.T	88.0	89.0	89.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alkamer	2
Biocide	1pl
Sodasulf	14 x
Drispac	15x
Starpac	2 5x
Lignite	23x
Caustic	15x
Barite	126 5x

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1630	1630	1630

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2590	2592	2	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17900	152	88	152	83

REDUCED PUMP SPEED

6900 @ @ 60

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0245	2¾	2	DRILL 2590m - 2591m
0245	0300	¼	7	NB FUNCTION REMOTE CHOKE ✓ BOPP
0300	0315	¼	5	CLEAN PIPE SCREEN
0315	0500	1¾	2	DRILL 2591m - 2591.8m
0500	0515	¼	5	CIRC & WORK ON PUMP #1 CLEAN SUCTION SCREEN
0515	0800	2¾	2	DRILL 2591m - 2592m

NOTES: ✓ CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR. Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	150000 daN		1498 kpa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D. mm	LENGTH
1	BIT	.216	.84 m
1	RES SUB	.172	4.43 m
1	NMDC		
1	BC SUB	2.37	2.43 m
1	3PT RM		
1	NMDC	9.32	2.59 m
1	3PT RM		
3	DC	228	27.65 m
5	JAR		45.93 m
	DC	228	
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA =	328.18 m
79	D.P.	STANDS	m
X	D.P.	SINGLES	2274.64 m
	KELLY DOWN		7.22 m
	TOTAL		2595.60 m
WT. OF DC		44000	1000 daN
WT. OF STRING		115000	1000 daN

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	Reed
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	18
TOTAL HOURS RUN	45

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 12000↑ 7000↓ Down Reamed

TORQUE AT BOTTOM 9-15000 FT/Lb

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:30	12:00	15:30
DENSITY kg/m³	1630	1630	1630
FUNNEL VIS. - (S/L)	83	81	83
W.L. (cm³)	9.2	9.5	9.5
pH	10.5	10.5	10.5
P.V.T m³	89.4	89.1	90.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alkamer	3 5pl
Sodasulf	15x
Carbonox	1pl
Biocide	1pl
Bf Sulph.	56sx
Caustic	13x.
Lime	15x.

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2592	2595	3	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
18100	152	83	152	83

REDUCED PUMP SPEED

7700 @ 85 @ 2595m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2584.09	6.7	320.6

DRILLER SIGNATURE

Gary Pabrinik

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1430	6½	2	Drill 311mm hole F/2592m - 2595m
1430	1445	¼	5	Work & clean hole, check Pipe screen.
1445	1500	¼	10	Survey @ 2584.09m
1500	1515	¼	7	R/S, Function Annular 19 Sec/s/s. ✓ BOPP
1515	1600	¾	2	Drill F/2595m - 2595.60m

NOTES: ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	155000 DAN	Working on electrical	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D. mm	LENGTH
1	BIT	.216	.84 m
1	RES SUB	.172	4.43 m
1	NMDC		
1	BC SUB	2.37	2.43 m
1	3PT RM		
1	NMDC	9.32	2.59 m
1	3PT RM		
3	DC	228	27.65 m
5	JAR		45.93 m
	DC	228	
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA =	328.18 m
79	D.P.	STANDS	m
X	D.P.	SINGLES	2274.64 m
	KELLY DOWN		3.62 m
	TOTAL		2599 m
WT. OF DC		44000	1000 daN
WT. OF STRING		115000	1000 daN

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	6 2 7
MFG.	REED
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3X19.0
DEPTH OUT (m)	
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	22
TOTAL HOURS RUN	52¼

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 15000↑ - 10000↓ dan

TORQUE AT BOTTOM 9-15000 FT/Lbs

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	20:00	22:00
DENSITY kg/m³	1630	1625	1625
FUNNEL VIS. - (S/L)	83	83	82
W.L. (cm³)	9.8	12.5	12.5
pH	10.5	10.5	10.5
P.V.T m³	91.1	91.7	93.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
9	1630	1000	1000

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2595	2599	4	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17900	152	83	152	83

REDUCED PUMP SPEED

6900 @ @ 60

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1645	¾	2	Drill F/2595.60m - 2596.20m
1645	1730	¾	5	Work & Clean Tight hole.
1730	2400	6½	2	Drill F/2596.20m - 2599m

NOTES: ✓ CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR. BOILERS BLOWN DOWN 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350			1533 kpa

C - 31

Nov. 30 - Dec 6

FOLD HERE →

140075

LICENCE NO.: 1400 | WELL NAME AND NO.: Canadian Forest et al North Laird C-31

OPERATOR: Canadian Forest Oil Ltd | CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 30C C31 H040 11330 C | UNIQUE ID.: 30C C31 H040 11330 C

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) HPS Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 12 | DAY 05

RIG NO. 5F

FUEL @ 8:00

RIG 1.03 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING / TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.94	101.2	STFC	K55	65	771.20	6.47	716

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	134.0	DC	63	178	4½IF	17	F-1000	Emsco	254
177	94.55	HC	57	165	4½IF	136	F-1000	Emsco	254
177	79.07	E	101	165	4½IF	136			
177	94.12	E	76	165	4½IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.		5½			1¾		⅛	¼		¼														
	DAY		7½			¼		¼																	
	EVE.		6¼			1¾																			
	TOTAL		19¼			3¾		½	¼		¼														

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 2 TYPE Derrick FLC	TMJ 452758			
	SCREENS CHANGED ☐ YES ☒ NO	TMJ 1207			
8	TOP 140 TOP 175	Arcum 01.35			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RC 535		.84 m
1	NMDC		9.43 m
1	RC Sub		2.37 2.63 m
1	3PT RM		2.59 m
1	NMDC		9.34 2.57 m
3	3PT RM		27.69 m
5	STB DC	228	45.99 m
1	JAR DC	228	1.40 m
17	X/O		160.44 m
1	DC	178	1.31 m
6	X/O		55.12 m
	HWDP	127	BHA 328.18 m
79	D.P.	STANDS	2265.06 m
—	D.P.	SINGLES	— m
	KELLY DOWN		8.44 m
	TOTAL		2584.80 m
WT. OF DC	44000	1000 daN	
WT. OF STRING	114000	1000 daN	

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	627
MFG.	REED
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	7
TOTAL HOURS RUN	16¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000↑ 5-10000↓ daN
TORQUE AT BOTTOM 10-15000 FT/LBS
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1630	1630	1625
FUNNEL VIS. - (S/L)	87	85	83
W.L. (cm³)	8.0	8.0	9.0
pH	10.5	10.5	10.5
P.V.T	81.0	80.8	82.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	126SX
Alcomer	2 SX
Biocide	1 pl
Corr. Inh.	1 pl
Sod Sulfite	1 SX
Drispac	1 SX
Stimpak	2 SX
Lignite	1 SX
Caustic	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2582	2584	2	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
18400	152	83	152	83

REDUCED PUMP SPEED

7200 @ 2574 @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1575.17	6.5	325.5

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0015	¼	7	R/S FUNCTION BTMM. PIPE RAMS BLIND RAMS
0015	0200	1¾	2	DRILL 2582 m - 2583 m
0200	0215	¼	8	RESTART MOTOR #1
0215	0400	1¾	2	DRILL 2583 m - 2583.6 m
0400	0500	1	5	CIRC. & WORK ON PUMP #1 CHANGE HEAD
0500	0515	¼	10	SURVEY
0515	0545	½	2	DRILL 2583 m - 2584 m
0545	0600	¼	5	CIRC & WORK ON PUMP #1 LINER WASHER
0600	0630	½	2	DRILL 2584 m - 2584.4 m
0630	0700	½	5	CIRC & WORK ON PUMP #2 WASHER SEAT
0700	0800	1	2	DRILL F/2584.40 m - 2584.80 m

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage, Boilers Blown Down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	150 000 daN	Crew Task Planning	1498 kPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RC 535		.84 m
1	NMDC		9.43 m
1	150 SUB		2.37 2.63 m
1	3PT RM		2.59 m
1	NMDC		9.34 2.57 m
3	STB DC		27.69 m
5	JAR DC		45.99 m
1	X/O		1.40 m
17	DC		160.44 m
1	X/O		1.31 m
6	HWDP		55.12 m
			BHA = 328.18 m
79	D.P.	STANDS	2265.06 m
—	D.P.	SINGLES	— m
	KELLY DOWN UP		5.44 m
	TOTAL		2587.80 m
WT. OF DC	44000	1000 daN	
WT. OF STRING	114000	1000 daN	

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	627
MFG.	Reed
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	10
TOTAL HOURS RUN	24¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 12000↑ 9000↓ FT/LD
TORQUE AT BOTTOM 9-15000 FT/LD
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	08:00	12:00	15:00
DENSITY kg/m³	1630	1630	1635
FUNNEL VIS. - (S/L)	82.	80	84
W.L. (cm³)	8.5	9.0	9.0
pH	10.5	10.5	10.5
PVT m3	81.9	82.4	85.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	
Sod Sulfite	1SK.
Caustic	2 SX
Lime	1SK.
Barite	210SX
Lignite	3 SX
Biocide	1pl
Corr. Inh.	1pl

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2584	2587	3	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17800	152	83	152	83

REDUCED PUMP SPEED

Change 8000 @ 2587 m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1530	7½	2	Drill 311 mm hole F/2584.80 m - 2587.80 m
1530	1545	¼	5	Clean Pipe Screen
1545	1600	¼	7	RIS Function TOP Pipe Rams 6 Sockets √RSPP

NOTES: √Crown Saver, Fastline Clamp Deadline Anchor, Brakes & Linkage. Boiler Blown down 3 x, Changed oil in draw works

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	150000 DAN	Lockouts on Rams	1463 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RC 535		.84 m
1	NMDC		9.43 m
1	150 SUB		2.37 2.63 m
1	3PT RM		2.59 m
1	NMDC		9.34 2.57 m
3	STB DC	228	27.69 m
5	JAR DC	228	45.99 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA	328.18 m
79	D.P.	STANDS	2265.06 m
—	D.P.	SINGLES	— m
	KELLY DOWN UP		3.24 m
	TOTAL		2590 m
WT. OF DC	44000	1000 daN	
WT. OF STRING	114000	1000 daN	

BIT RECORD

BIT NO.	35C
SIZE (mm)	311
IADC CODE	627
MFG.	Reed
TYPE	HP62A
SERIAL NO.	CK2686
JETS (mm)	3X19.0
DEPTH OUT (m)	
DEPTH IN (m)	2577
TOTAL METRES DRILLED (m)	13
TOTAL HOURS RUN	30½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 15000↑ 10000↓ daN
TORQUE AT BOTTOM 9-14000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	1500	20:00	22:00
DENSITY kg/m³	1630	1630	1630
FUNNEL VIS. - (S/L)	87	87	85
W.L. (cm³)	9.2.	10.0	10.0
pH	10.5	10.5	10.5
PVT m3	89.0	89.0	90.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2587	2590	3	55	26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17600	152	83	152	83

REDUCED PUMP SPEED

8000 @ 2587 m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1700	1	5	Circulate, Work on Pump #1, Change head & Valve
1700	1745	¾	2	Drill F/2587 m - 2588 m
1745	1830	¾	5	Circulate & Work on Pump #1
1830	2400	5½	2	Drill F/2588 m - 2590 m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Boilers Blown Down 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	340	140 000 DAN		1418 kpa

FOLD HERE →

140074

LICENCE NO.: 1960 | WELL NAME AND NO.: Canadian Forest et al North Laird c-31

OPERATOR: Canadian Forest Oil Ltd | CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 300 c/31 60Mc 113 30 0 | UNIQUE ID.: 300 c/31 60Mc 113 30 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Reg Mng. Mech | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection
(2) Detailed Inspection Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR: 2010 | MONTH: 12 | DAY: 24

RIG NO.: 56

FUEL @ 8:00

RIG: 1.52 | BOILER:

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.54	107.2	BTC	K55	55	711.24	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	208.5	E	57	197	5½FH	18	F 1000	Emsco	356
178	208.5	E	57	197	5½FH	18	F 1000	Emsco	356
149	91.47	E	101	152	4½IF	179			
127	89.02	E	76	156	V	179			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.					¼	6	¼		¾												Handle Tools			
	DAY		3½	1¼		¾	2½															¾			
	EVE.		7½					¼																	
	TOTAL		11¾	1¼		1¼	8½	½		¾												¾			

TOTALS

F	
S	
E	
24	

SHALE SHAKER(S)

NO.	TYPE
2	BRANDT
SCREENS CHANGED	☐ YES ☒ NO
TOP	140 / 175
MIDDLE	140 / 175
BOTTOM	140 / 175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 4P2422			
MJ E71			
Accumul .35			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.64 m
1	NMDC	228	9.43 m
1	ROSUB		2.37 m
1	3PT RM	228	9.32 m
1	NMDC		2.54 m
3	DC	228	27.17 m
1	JAR		5.33 m
5	DC	228	45.99 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.12 m
		BHA	328.15 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	34C	35C
SIZE (mm)	311	311
IADC CODE	E 1 7 X	6 2 7
MFG.	HUGHES	REED
TYPE	ATJ44XP	HP62A
SERIAL NO.	JC7016	CK2686
JETS (mm)	3X19.0	3X19.0
DEPTH OUT (m)	2577	
DEPTH IN (m)	2566	2577
TOTAL METRES DRILLED (m)	11	
TOTAL HOURS RUN	2½	

CUTTING STRUCTURE

T1	T2	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
B	B	BT	A	F	IN	BT	TD	4.5

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: ☒ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Baroid	84 SX
Bicarb	1 pl
Soda Ash	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2577				

CIRCULATION PRESSURE (kPa)

PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0315	3¼	6	P.O.O.H. FROM 1433m - 348m FLOWY
0315	0330	¼	7	POOH BHA FLOWY
0330	0415	¾	22	RR FUNCTION BLIND RAMS 5SEC 4/5
0415	0600	1¾	6	MAD BIT & R.I.H. TO 746m FLOWY
0600	0615	¼	5	FILL PIPE & TEST MWD TOOL
0615	0700	¾	9	SLIP & CUT 20m RESET CROWN SAVER
0700	0800	1	6	R.I.H. 748m - 1100m TRIP RECORD

CAL 17400 m³
ACT 16021 m³
DIFF 1.21 m³

NOTES: √CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR
BOILERS BLOWN DOWN 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
6	10.5	340°	140 000 daN		1498 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.36 .84 m
1	RES SUB		.69 2.43 m
1	NMDC		2.37 2.43 m
1	3PT RM		9.32 2.59 m
1	NMDC		2.54 27.69 m
3	5/3 DC		27.69 5.33 m
1	JAR		45.99 m
5	DC		1.40 m
1	X/O		160.44 m
17	DC	178	1.31 m
1	X/O		55.12 m
6	HWDP	127	328.18 m
78	D.P.	STANDS	— m
XX	D.P.	SINGLES	2255.39 m
	KELLY DOWN		4.97 m
	TOTAL		2578.60 m
WT. OF DC			44000 1000 daN
WT. OF STRING			114000 1000 daN

BIT RECORD

BIT NO.	35C	
SIZE (mm)	311	
IADC CODE	6 2 7	
MFG.	Reed	
TYPE	HP62A	
SERIAL NO.	CK2686	
JETS (mm)	3X19.0	
DEPTH OUT (m)	—	
DEPTH IN (m)	2577	
TOTAL METRES DRILLED (m)	1	
TOTAL HOURS RUN	3½	

CUTTING STRUCTURE

T1	T2	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	11000 ↑ 7000 ↓ daN
TORQUE AT BOTTOM	9000 - 15000 FT/LBS
FILL ON BOTTOM (m)	1m

MUD RECORD

MUD TYPE: ☒ WATER BASED ☐ OIL BASED

TIME		14:30
DENSITY kg/m³		1640
FUNNEL VIS. - (S/L)		95
W.L. (cm³)		10.4
pH		10.0
PVT m³		68.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alkaline Bor	2 pl
Biocide	1 pl
Corrosex	1 pl
Desipar	2 SX
Starpac	4 SX
Lignite	1 SX
Soda Ash	1 SX
Caustic	2 SX
Barite	84 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

DAY TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2577	2578	1	55	27

CIRCULATION PRESSURE (kPa)

PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
152	83	152	83

REDUCED PUMP SPEED

8000 @ 2578 m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1030	2½	6	R.I.H. Flowy & Fill P. Pe every 500m
1030	1115	¾	5	Break circ, Wash F/2554m - 2575m
1115	1230	1¼	3	Ream F/2575m TO BOTTOM @ 2577m
1230	1600	3½	2	Pattern Bit, Drill F/2577m - 2578m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3x, Greased Crown & Blocks, √Torque Tube

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	345°	165000 DAN	Tripping	1428 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.36 .84 m
1	RES SUB		.69 2.43 m
1	NMDC		2.37 2.43 m
1	3PT RM		9.32 2.59 m
1	NMDC		2.54 27.69 m
3	5/3 DC		27.69 5.33 m
1	JAR		45.99 m
5	DC		1.40 m
1	X/O		160.44 m
17	DC	178	1.31 m
1	X/O		55.12 m
6	HWDP	127	328.18 m
78	D.P.	STANDS	m
XX	D.P.	SINGLES	2255.39 m
	KELLY DOWN		1.57 m
	TOTAL		2562 m
WT. OF DC			44000 1000 daN
WT. OF STRING			114000 1000 daN

BIT RECORD

BIT NO.	35C	
SIZE (mm)	311	
IADC CODE	6 2 7	
MFG.	Reed	
TYPE	HP62A	
SERIAL NO.	CK2686	
JETS (mm)	3X19.0	
DEPTH OUT (m)	—	
DEPTH IN (m)	2577	
TOTAL METRES DRILLED (m)	5	
TOTAL HOURS RUN	11¼	

CUTTING STRUCTURE

T1	T2	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	15000 ↑ 10000 ↓ daN
TORQUE AT BOTTOM	9000 - 15000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: ☒ WATER BASED ☐ OIL BASED

TIME	1830	20:00	22:00
DENSITY kg/m³	1640	1640	1640
FUNNEL VIS. - (S/L)	90	90	85
W.L. (cm³)	8.0	9.0	9.0
pH	10.0	10.0	10.0
PVT m³	74.5	76.0	78.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2578	2582	4	55	25/30

CIRCULATION PRESSURE (kPa)

PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
152	83	152	83

REDUCED PUMP SPEED

8000 @ 2578 m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	¼	2	Drill 311mm hole F/2578m - 2578.60m
1615	1630	¼	7	RIS Function Annular 19 secs, √RSPP
1630	2400	7½	2	Drill F/2578.60m - 2582m

NOTES: √CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR
BOILERS BLOWN DOWN 3X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	340°			1428 kPa

FOLD HERE →

140073

LICENCE NO.: 1406 | WELL NAME AND NO.: Canadian Forest et al North Land c-31

OPERATOR: Canadian Forest Oil LTD | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 c31 1040 12330 0 | UNIQUE ID.: 300 c31 1040 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 12 | DAY 03

RIG NO. 56

FUEL @ 8:00

RIG 1.66 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	104.3	DT&C	K55	55	711.60	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	134.5	DP	67	171	CHPC	24	F-1000	EMSCO	254
203	254.07	HWDP	76	152	CHPC	12	F-1000	EMSCO	254
178	229.62	ES	102	162	4½ IF	156			
178	229.62	ES	102	162	XT	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			7¼			1/3		1/4														BOP Drill			
DAY			7¼			1/4					1/4										1/4				
EVE.			9			1	13¾													1/4					
TOTAL			18½			1¾	13¾	1/4			1/4									1/4	1/4				

TOTALS

SHALE SHAKER(S)		RENTALS/SERVICES	MORN	DAY	EVE
NO. 2	TYPE Brandt	FMC	TMS 4506B23			
SCREENS CHANGED ☑ YES ☐ NO			AMJ 7027			
TOP 170	TOP 170		Accom Oil .35			
MIDDLE 171	MIDDLE 175					
BOTTOM 170	BOTTOM 175					

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RR Sub		.84 m
1	NMDC	206	9.43 m
1	150 SUB		2.43 m
1	8PT RM	206	9.59 m
3	3½ DC	228	27.69 m
5	Jar DC	206	45.99 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.18 m
		BHA=	308.19 m
78	D.P.	STANDS	m
XX	D.P.	SINGLES	2255.39 m
	KELLY DOWN		9.97 m
	TOTAL		2573.60 m
WT. OF DC		44000	1000 daN
WT. OF STRING		113000	1000 daN

BIT RECORD

BIT NO.	34C
SIZE (mm)	311
IADC CODE	617X
MFG.	Hughes
TYPE	ATJ44XP
SERIAL NO.	J07018
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2566
TOTAL METRES DRILLED (m)	7
TOTAL HOURS RUN	10¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 15-20000 ↑ 15-20000 ↓
TORQUE AT BOTTOM 8-20000 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1635	1635	1635
FUNNEL VIS. - (S/L)	88	86	88
W.L. (cm³)	10.0	10.5	12.0
pH	10.0	10.0	10.5
P.V./T	70.4	70.5	71.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Biocide	1 pl
Caustic	1 pl
Sodaash	1 sx
Alkamer 80	1 sx
Potassium	36 sx
Caustic	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR.D RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2569	2573	4	15	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17300	152	80	152	80

REDUCED PUMP SPEED

7300 @ 80 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0330	3½	2	DRILL 2569m - 2571m
0330	0345	¼	5	WORK PIPE & CLEAN MUD PIT SCREEN
0345	0630	2¾	2	DRILL 2571m - 2572m
0630	0645	¼	7	RIG SERVICE TOP DRIVE FUNCTION ANNULAR & SLIP
0645	0700	¼	5	WORK PIPE & CLEAN HOLE AFTER CONNECTION
0700	0800	1	2	DRILL 2572m - 2573m
				CHECKED FIRE EXTINGUISHERS

NOTES: Crown Saver Fastline Clamp Deadline Anchor
Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	340	140 000		1463 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	206	.84 m
1	NMDC		9.43 m
1	150 SUB		2.43 m
1	8PT RM	206	2.59 m
3	3½ DC		27.69 m
5	Jar DC	206	45.99 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.18 m
		BHA=	308.19 m
78	D.P.	STANDS	m
XX	D.P.	SINGLES	2255.39 m
	KELLY DOWN		7.07 m
	TOTAL		2576.50 m
WT. OF DC		44000	1000 daN
WT. OF STRING		113000	1000 daN

BIT RECORD

BIT NO.	34C
SIZE (mm)	311
IADC CODE	617X
MFG.	Hughes
TYPE	ATJ44XP
SERIAL NO.	J07018
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	2566
TOTAL METRES DRILLED (m)	10
TOTAL HOURS RUN	18

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 12000 ↑ 10000 ↓ DAN
TORQUE AT BOTTOM 8-21000 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:30	12:00	15:00
DENSITY kg/m³	1635	1635	1635
FUNNEL VIS. - (S/L)	93	85	87
W.L. (cm³)	11.0	11.0	12.05
pH	10.2	10.2	10.2
PVT m³	72.0	72.3	71.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Biocide	1 pl
Viscpac	2 sx
Lignite	3 sx
Xcpac	4 sx
Corrinox	1 pl
Biocide	1 pl
Alkamer 80	2 pl
Sod. Sulfite	1 sx
Pot. Sulph.	56 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR.D RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2573	2576	3	65	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17000	152	80	152	80

REDUCED PUMP SPEED

7200 @ 2574m @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2565.11	6.8	329.7

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1030	2½	2	Drill 311mm hole 2573m-2574m
1030	1045	¼	22	B.O.P Drill Well Secure in 1 min
1045	1100	¼	10	Survey @ 2565.11m
1100	1545	4¾	2	Drill F/2574m-2576m
1545	1600	¼	5	Work Pipe. Check Pipe Screen.

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.
Boiler Blowndown 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°F	150000 DAN	Proper Steam use.	1463 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	206	.84 m
1	NMDC		9.43 m
1	150 SUB		2.43 m
1	8PT RM	206	2.59 m
3	3½ DC	228	27.69 m
5	DC	206	45.99 m
1	X/O		1.40 m
17	DC	178	160.44 m
1	X/O		1.31 m
6	HWDP	127	55.18 m
		BHA=	308.18 m
78	D.P.	STANDS	m
XX	D.P.	SINGLES	2257.39 m
	KELLY DOWN		6.57 m
	TOTAL		2577 m
WT. OF DC		44000	1000 daN
WT. OF STRING		114000	1000 daN

BIT RECORD

BIT NO.	34C
SIZE (mm)	311
IADC CODE	617X
MFG.	Hughes
TYPE	ATJ44XP
SERIAL NO.	J07018
JETS (mm)	3X19.0
DEPTH OUT (m)	2577
DEPTH IN (m)	2566
TOTAL METRES DRILLED (m)	11
TOTAL HOURS RUN	20

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 15-20000 ↑ ↓
TORQUE AT BOTTOM 6-21000 FT/LB
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00
DENSITY kg/m³	1630
FUNNEL VIS. - (S/L)	95
W.L. (cm³)	10.8
pH	10.0
PVT m³	72.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR.D RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2576	2577	1	65	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17200	152	80	152	80

REDUCED PUMP SPEED

7300 @ 80 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1900	3	2	Drill 311mm hole F/2576m-2576m
1900	1915	¼	20	RESET SIGNAL FOR MWD TOOL
1915	2015	1	2	Drill 2576m-2577m
2015	2100	¾	5	Circ. & Work Pipe
2100	2245	1¾	6	T.O.O.H from 2577m-2150m Flow Ck
2245	2300	¼	5	Pump Pill
2300	2400	1	6	T.O.O.H from 2150m-1433m Flow Ck

NOTES: Crown Saver, Fastline Clamp Deadline Anchor
Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	340	153000		1470 kPa

FOLD HERE →

140072

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Lood c-31

OPERATOR: Canadian Forest Oil LTD | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 C31 F040 12330 0 | UNIQUE ID.: 300 C31 F040 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 12 | DAY 22

RIG NO. 46

FUEL @ 8:00

RIG 1,43 | BOILER

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.14	107.43	ST&C	K55	55	711.20	6.47	710

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	134.8	EX	63	178	4 1/2 IF	18			
159	94.72	4145	73	159	4 1/2 IF	12	F-1000	Emsco	305
127	36.67	E75	101	152	4 1/2 IF	18	F-1000	Emsco	254
127	39.03	E75	108	152	V	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Handle Tools	24	25	26
	MORN.						3									4 1/2						1/2				
	DAY					3 1/2	3 3/4														1/2	3				
	EVE.		3 1/2			1 3/4	2 3/4																			
	TOTAL		3 1/2			5 1/4	9 1/2									4 1/2					1/2	3 1/2				

TOTALS

6		
8		
8		
24		

SHALE SHAKER(S): NO. 2 | TYPE DERRICK FLO

SCREENS CHANGED ☐ YES ☒ NO

TOP		TOP	
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 441277			
AMJ 5481			
Accum Oil .35			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	34C
SIZE (mm)	311
IADC CODE	6 1 7 X
MFG.	J&L
TYPE	ATJ44XP
SERIAL NO.	J07018
JETS (mm)	3 X 19.0
DEPTH OUT (m)	
DEPTH IN (m)	2566
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2566				

CIRCULATION PRESSURE (kPa)

PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 2 LINER SIZE (mm)	S.P.M.
152		152	

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0300	3	6	P.C.C.H. K.T.T.S. PICKER & LAY DOWN
0300	0330	1/2	22	M/U TEST PLUG & SET
0330			15	PRESSURE TEST BOP'S
				ANNULAR 1500 kpa Low 5 min 3500 kpa Hold 10 min
				Top PIPE RAMS 1500 kpa Low 5 min 3500 kpa High 10 min
				Btm. Pipe RAMS 1500 kpa Low 5 min 3500 kpa High 10 min
				Lower KELLY COCK VALVE 1500 kpa Low 5 min 3500 kpa Hold 10 min
				BLIND RAMS 1500 kpa Low 5 min 3500 kpa Hold 10 min
	0700	3 1/2		ACCUM FUNCTION TEST
0700	0800	1	15	INSTALL WEAR BUSHING
				SET UP VALVES ON BOP STACK & MANIFOLD

NOTES: VERNON SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILERS BLOWN DOWN 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	340			1463 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RES SUB		36.84 m
1	NMDC		9.43 m
1	150 SUB		0.34 m
1	3PT RM		2.59 m
3	3PT DC		27.69 m
5	DC		45.99 m
1	X/O		1.40 m
17	DC		160.44 m
1	X/O		1.31 m
6	HWDP		55.12 m
		BHA =	338.19 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		44000	1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	34C
SIZE (mm)	311
IADC CODE	6 1 7 X
MFG.	Hughes
TYPE	ATJ44XP
SERIAL NO.	J07018
JETS (mm)	3X19.0
DEPTH OUT (m)	
DEPTH IN (m)	2566
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH PVT = 3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2566				

CIRCULATION PRESSURE (kPa)

PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 2 LINER SIZE (mm)	S.P.M.
152		152	

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1100	3	22	Make up BIT & New BHA, Install MWD
1100	1315	2 1/4	6	R.I.H. TO 375m
1315	1400	3/4	5	Fill pipe, Unthaw Shaker Tee.
1400	1500	1	6	R.I.H TO 780m
1500	1530	1/2	20	Fill pipe - Test MWD
1530	1600	1/2	6	R.I.H. Fill Pipe every 500m
				Pickup New Shock Sub SN# 139-90180-02
				New Jars SN# - 10154

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

Boiler Blown down 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	350		Tripping	1463 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RES SUB		36.84 m
1	NMDC		9.43 m
1	150 SUB		0.34 m
1	3PT RM		2.59 m
3	3PT DC		27.69 m
5	JAR DC		45.99 m
1	X/O		1.40 m
17	DC		160.44 m
1	X/O		1.31 m
6	HWDP		55.12 m
		BHA =	338.19 m
76	D.P.	STANDS	m
X	D.P.	SINGLES	2245.80 m
STUCK = UP	KELLY DOWN		4.90 m
	TOTAL		2569 m
WT. OF DC		44000	1000 daN
WT. OF STRING		113000	1000 daN

BIT RECORD

BIT NO.	34C
SIZE (mm)	311
IADC CODE	6 1 7 X
MFG.	Hughes
TYPE	ATJ44XP
SERIAL NO.	J07018
JETS (mm)	3X19.0
DEPTH OUT (m)	
DEPTH IN (m)	2566
TOTAL METRES DRILLED (m)	3
TOTAL HOURS RUN	3 1/2

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 15-20000 UP 5-10000 DN

TORQUE AT BOTTOM 9-17000 FT/LBS

FILL ON BOTTOM (m) 2m

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	22:00	24:00
DENSITY kg/m³	1640	1640
FUNNEL VIS. - (S/L)	92	90
W.L. (cm³)	9.5	9.5
pH	10.5	10.5
PVT = 3	68.2	70.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2566	2569	3	65	5 5/30

CIRCULATION PRESSURE (kPa)

PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 2 LINER SIZE (mm)	S.P.M.
1400	152	60	152	60

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1845	2 3/4	6	R.I.H. Fill Pipe every 500m.
1845	2030	1 3/4	5	Break circ. Wash 12m. TO Bottom.
2030	2400	3 1/2	2	DRL IN BIT & DRILL 2566m - 2569m

NOTES: CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILERS BLOWN DOWN 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
	8	10.5	340	130000 DaN	TRIPPING	1428 kpa

FOLD HERE →

140071

LICENCE NO.: 1901 | WELL NAME AND NO.: Canadian Forest et al North Laird C-31

OPERATOR: Canadian Forest Oil Ltd | CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 300 C-31 L040 W330 C | UNIQUE ID.: 300 C-31 L040 W330 C

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS (OPR. / R.M.)

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR: 2000 | MONTH: 12 | DAY: 21

RIG NO.: 56

FUEL @ 8:00

RIG: 1.75 | BOILER:

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.94	101.2	ERW	K-55	55	711.80	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	134.8	E	71	196	6⅝ REG	37	F-1000	EMSCO	254
	133	95.27	E	101	162	4½ IF	135	F-1000	EMSCO	254
	127	77.02	E	112	162		144			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Handle Tools	24	25	26
	MORN.		3¼			1¼	3	1¼			1¼															
	DAY						8																			
	EVE.						3¼	1¼								2						2½				
	TOTAL		3¼			1¼	14¼	1½			1¼					2						2½				

TOTALS

1	
2	
3	
4	
5	
24	

SHALE SHAKER(S)

NO.: 1 | TYPE: DERRICK FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP		TOP	
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 449136			
AMJ 9340			
Access D.I. 35			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RR3 HUGHES		9.64 m
1	8" DRILCO		9.43 m
1	NMDC		2.37 1.55 m
1	8" STB		3.51 2.59 m
1	8" STB RR1		1.02 3.03 m
2	DC		18.67 m
1	JAR		5.63 m
2	DC		18.77 m
17	DC		160.48 m
1	XO HWDP		1.31 15.18 m
		BHA	354.35 m
75	D.P.	STANDS	m
8	D.P.	SINGLES	2265.60 m
	KELLY DOWN		9.45 m
	TOTAL		1566 m
WT. OF DC			43.000 1000 daN
WT. OF STRING			113.000 1000 daN

BIT RECORD

BIT NO.	33
SIZE (mm)	311
IADC CODE	617
MFG.	REED
TYPE	HP11A
SERIAL NO.	92EA
JETS (mm)	2x11.9/1-11.1
DEPTH OUT (m)	2566
DEPTH IN (m)	2537
TOTAL METRES DRILLED (m)	29
TOTAL HOURS RUN	44½

CUTTING STRUCTURE: T | T_D | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

2 | 2 | WT | A | F | I | CC | WO | 58

HOLE CONDITION

HOLE DRAG	15-20000# 15-20000#
TORQUE AT BOTTOM	9-20000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00
DENSITY kg/m³	1635	1635
FUNNEL VIS. - (S/L)	96	94
W.L. (cm³)	10.5	9.0
pH	10.0	10.0
P.V.T	89.5	85.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barazan	2 0 SX
Desco	2 SX
Lignite	35X
Drispac	1 SX
Starpak	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2374	2566	D	100/70	25/35

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17400	127	100	127	100

REDUCED PUMP SPEED

2300 @ 100 @ 153

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2557.67	6.7	331.5

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0015	¼	7	RIG FUNCTION KELLY HOSE CHANGE
0015	0045	½	5	CIRC & WORK TIGHT HOLE
0045	0200	1¼	2	DRILL 2514m - 2565m
0200	0215	¼	5	CIRC & WORK ON PUMP #2
0215	0415	2	2	DRILL 2565m - 2566m
0415	0430	¼	10	SURVEY
0430	0500	½	5	WORK TIGHT HOLE
0500	0800	3	6	P.O.O.H. FOR WASH PUMP OUT FROM 2566m - 2332m

NOTES: X CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILERS BLOWN DOWN 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	8	10.5	350	155 000 daN	TRIPPING	14F 5 KPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T | T_D | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)		
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Bar 172 (bp3)	400 SKS.

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2566				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1600	8	6	Push Hump out to 2700m, Flow/C 18.0m
				Flow/C 1400m, @ HWDP,
				Tr. Record
				meas - 21.57
				col - 15.90
				Diff - 5.67

NOTES: X Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

Boiler Blown down 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	8	10.5	350 F	150 000 DAN	H2S Dr. 115	14F3 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T | T_D | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)		
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2566				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1730	1½	22	Jars jumped in Sections lay down,
				Lay down TOP 30T Rm. Pull mwd, √ Press up.
				Breaks, inspect B.T.
1730	1745	¼	7	R/S Function Blind Rams 6 sec/cls.
1745	1900	1¼	15	make up test Plug, Pull wear bushing.
1900	2000	1	22	P/U KTTS PACKER & K J H,
2000	2315	3¼	6	K J H STRAP IN TO 705m & SET KTTS packer
2315	2400	¾	15	PRESSURE TEST CASING
				C.I.T. TEST 1500 kPa 7000 kPa High Kpa
				10 min 10 min

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor

Blow Boilers Down 3X

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	8	11.5	340		Pressure Testing	14F3 KPA

FOLD HERE →

146040

LICENCE NO.: 1904 | WELL NAME AND NO.: CANADIAN FOREST ET AL WORSLEY LAND C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 300 C-31 60-10 W5M | UNIQUE ID.: 300 C-31 60-10 W5M 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR: 2005 | MONTH: 11 | DAY: 20

RIG NO.: 8

FUEL @ 8:00: RIG 229 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
CASING	339.7	315.9	107	B+C	K55	53	710.20	6.00	710.2
TUBING									
LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	127	71.53	E	76.2	158	4½ IF	17	F-1000	EMSCO	254
	127	39.07	E	101.6	158	4½ IF	138	F-1000	EMSCO	254
	127	39.07	E	101.6	158	4½ IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			6½			1¼					¼														
DAY																									
EVE.								¼																	
TOTAL			6½			1¼		¼			¼														

TOTALS: SHALE SHAKER(S): NO. 2 TYPE DERRICK FLO | SCREENS CHANGED ☐ YES ☒ NO | TOP 120 TOP 175 | MIDDLE 140 MIDDLE 175 | BOTTOM 140 BOTTOM 175

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMJ 942.714			
ANT 1918			
ACCIMOL 36			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RR3 SHB	308	0.84 m
1	NMDC	203	9.43 m
1	150 SHB	308	0.37 m
1	NMDC	203	9.32 m
1	SUB	308	1.59 m
1	3PT RM	203	9.02 m
1	DC	203	18.87 m
5	DC	203	45.94 m
1	XO	178	1.40 m
17	DC	178	160.44 m
1	XO	178	1.31 m
6	HWDP	127	55.12 m
		BHA	329.35 m
78	D.P.	STANDS	2235.99 m
	D.P.	SINGLES	m
	KELLY DOWN	14	7.34 m
	TOTAL		2572.48 m
WT. OF DC			43000 1000 daN
WT. OF STRING			113000 1000 daN

BIT RECORD

BIT NO.	33
SIZE (mm)	311
IADC CODE	617
MFG.	REED
TYPE	HP61A
SERIAL NO.	9284
JETS (mm)	2x14.3 1x11.1
DEPTH OUT (m)	
DEPTH IN (m)	2537
TOTAL METRES DRILLED (m)	41
TOTAL HOURS RUN	35

CUTTING STRUCTURE: T | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG 15-20000 ↑ 5-20000 ↓ | TORQUE AT BOTTOM 6-19000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1640	1635	1635
FUNNEL VIS. - (S/L)	87	106	106
W.L. (cm³)	9.5	11.0	9.5
pH	10.5	10.5	10.5
PVT m³	83.3	83.7	84.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
DESCO	2 SK
LIGNITE	1 SK
BACTICIDE	1 PL
CAUSTIC	1 PL
SOD. SULFITE	1 SK
ALCOMER 110	1 SK
DRILPAC	3 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2537	2558	4	65	33/35

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
19400	127	100	127	100

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
2538.08	6.4	332.9

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0030	½	5	WORK PIPE 9 C.IRC.
0030	0115	¾	2	DRILL 2554m - 2555m
0115	0145	½	5	WORK PIPE 9 CIRC CHANGE SEAT & VALVE #6
0145	0430	2¾	2	DRILL 2555m - 2555.3557m
0430	0445	¼	10	SURVEY
0445	0700	2¼	2	DRILL 2557m - 2558m
0700	0715	¼	5	WORK PIPE 9 CIRC. CHANGE VALVE #2
0715	0800	¾	2	DRILL 2558m - 2558.5m

NOTES: Tool Pusher Visit - Safety Meeting - Derrick Inspection - Derrick Brakes Inspected - Boiler Blow Down 3x

DRILLER SIGNATURE: [signature]

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	340°	145 000	Work List	1429 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RR3 SHB	308	0.84 m
1	NMDC	203	9.43 m
1	150 SHB	308	0.37 m
1	NMDC	203	9.32 m
1	SUB	308	1.59 m
1	3PT RM	203	9.02 m
1	DC	203	18.87 m
5	DC	203	45.94 m
1	XO	178	1.40 m
17	DC	178	160.44 m
1	XO	178	1.31 m
6	HWDP	127	55.12 m
		BHA	329.35 m
78	D.P.	STANDS	2535.14 m
	D.P.	SINGLES	— m
	KELLY DOWN	14	3.52 m
	TOTAL		2561.81 m
WT. OF DC			43000 1000 daN
WT. OF STRING			113000 1000 daN

BIT RECORD

BIT NO.	33
SIZE (mm)	311
IADC CODE	617
MFG.	REED
TYPE	HP61A
SERIAL NO.	9284
JETS (mm)	2x14.3 1x11.1
DEPTH OUT (m)	
DEPTH IN (m)	2537
TOTAL METRES DRILLED (m)	24
TOTAL HOURS RUN	41

CUTTING STRUCTURE: T | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG 15-20000 ↑ 5-20000 ↓ | TORQUE AT BOTTOM 6-21000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	07:00	12:00	15:00
DENSITY kg/m³	1625	1620	1625
FUNNEL VIS. - (S/L)	92	105	103
W.L. (cm³)	9.0	10.0	9.0
pH	10.0	11.0	10.2
PVT m³	84.3	86.0	86.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
CAUSTIC	2 SK
LIME	1 SK
PERCOL 776	1 SK
CORINOX	1 PL
ALCOMER 110	1 SK
SOD SULFITE	1 SK
BACTICIDE	1 PL
BARITE	1680 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2558	2561	3	65	33

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
19400	127	100	127	100

REDUCED PUMP SPEED: 8400 @ | @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1400	6	2	DRILL 2558m - 2561m
1400	1600	2	5	WORK PIPE & CIRC. WORK ON PUMP #2

NOTES: Crown Saver - Fastline Clamp - Deadline Anchor - Bia Hoist Inspected - Boilers Blown Down 3x

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°	155 000		1533 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	RR3 SHB	308	0.84 m
1	NMDC	203	9.43 m
1	150 SHB	308	0.37 m
1	NMDC	203	9.32 m
1	SUB	308	1.59 m
1	3PT RM	203	9.02 m
1	DC	203	18.87 m
5	DC	203	45.94 m
1	XO	178	1.40 m
17	DC	178	160.44 m
1	XO	178	1.31 m
6	HWDP	127	55.12 m
		BHA	329.35 m
78	D.P.	STANDS	2205.79 m
	D.P.	SINGLES	329.35 m
	KELLY DOWN	14	11.45 m
	TOTAL		2546.59 m
WT. OF DC			43000 1000 daN
WT. OF STRING			114000 1000 daN

BIT RECORD

BIT NO.	33
SIZE (mm)	311
IADC CODE	617
MFG.	Reed
TYPE	HP61A
SERIAL NO.	9284
JETS (mm)	2x14.3/1-11.1
DEPTH OUT (m)	
DEPTH IN (m)	2537
TOTAL METRES DRILLED (m)	37
TOTAL HOURS RUN	46 1/4

CUTTING STRUCTURE: T | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG 15-20000 ↑ | TORQUE AT BOTTOM 9-19000 FT/LBS | FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	17:50	21:00	23:00
DENSITY kg/m³	1635	1640	1635
FUNNEL VIS. - (S/L)	92	90	96
W.L. (cm³)	9.0	9.0	9.5
pH	10.2	10.0	10.0
PVT m³	86.4	84.8	85.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
DESCO	2 SX
LIGNITE	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2561	2614	3	65	34

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
19400	127	100	127	100

REDUCED PUMP SPEED: 8400 @ 100 @ 2563m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1630	½	5	Work Pipe & Circ, Work on Pump #1
1630	1915	2¾	2	Drill 311mm hole F/2561m - 2563m
1915	1930	¼	5	Work & clean hole, check Pipe screen.
1930	2115	1¾	5	Work Pipe & Circ, Repair Pump #2, Washed seat & valve
				Repair Pump #1 Change Wash Seat & valves
2115	2345	2½	2	Drill F/2563m - 2564m
2345	2400	¼	7	Top Drive Service Function Pipe Rams

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Bia Hoist Inspected, Boiler Blown down 3x, Test Flare Igniter

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350°		Working on Pumps	