

PRODUCTION TOUR REPORT

Well Name: Chevron et al Liard K-29WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)LSD : K-29 (within grid area 60° 30' 123° 30')Date : September 18, 1999Day Number : 15

CREW		FROM	TO	TIME SUMMARY		
D	Driller					
A	Derrick					
Y	Derrick					
C	Motorman					
R	Floor					
E	Floor					
W	Lease					
N	Accum Press.					
I	Air Shut Off					
G	Stab Valve					
H	Fire Ext.					
T	H2S					
C	Driller			PP&E Summary:		
R	Derrick			Near miss incidents - none to report		
E	Derrick			Spills or emissions - none to report		
W	Motorman					
	Floor					
	Floor					
	BOP					
	Accum Press.					
	Air Shut Off					
	Stab Valve					
	Fire Ext.					
				Today	Cumulative	Retest Operation Only
	Tangible				\$474,100	
	Intangible				\$757,706	\$458,623
	Total				\$1,231,806	\$458,623
				Norward Energy Service (Baker Atlas Division)		Ross Rutherford / Martin Mueller
				Dowell - Schlumberger Oilfield Services		Carey Funk
				RIG OR CONTRACTOR		CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Move test eqt off location. Displace tubing to nitrogen. Install Barber back pressure valve.

Finish rig out of Norward well test equipment.

Move to location Dowell nitrogen pumper unit and Dowell N2 transport. Make up Dowell treating iron to wing valve. Pressure test surface piping to 30,000 kPa - OK. Open wellhead master valves - 23400 kPa SITP. Pump nitrogen to wellbore at max rate 140 SCM / minute. **Pump total 9500 SCM nitrogen to displace wellbore and tailpipe to nitrogen.** Stop pump. Shut master valves. Rig out Dowell.

Move to location Barber Wellhead service unit. Remove top 103.2 mm 35000 kPa swab valve and top 103.2 mm x 179.4 mm studded adaptor. Make up Barber lubricator and one way back pressure valve assembly on top of flow cross (note: swab valve diameter smaller than BPV OD).

Open wellhead master valves. Push in back pressure valve and lubricator rod through master valve bores. Rotate lubricator rod to **engage Barber back pressure valve into 177.8 mm Barber tubing hanger.** Continue rod rotation to unscrew rod from top of BPV. Bleed off wellhead pressure to zero kPa - OK.

Lay down lubricator and make up swab valve and studded adaptor onto top of wellhead. Chain and lock wellhead valve handles.

Well secure for long term suspension until production facilities constructed.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Liard K-29**WBSE# **RWWNC - R9023 - 500 (tubing changeout and retest)**LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 17, 1999**Day Number : **14**

CREW		FROM	TO	TIME SUMMARY		
D	Driller					
A	Derrick					
Y	Derrick					
C	Motorman					
R	Floor					
E	Floor					
W	Lease					
N	Accum Press.					
I	Air Shut Off					
G	Stab Valve					
H	Fire Ext.					
T	H2S					
C	Driller			PP&E Summary:		
R	Derrick			Near miss Incidents - none to report		
E	Derrick			Spills or emissions - none to report		
W	Motorman			Today	Cumulative	Retest Operation Only
	BOP					
	Accum Press..			Tangible	\$474,100	
	Air Shut Off			Intangible	\$700,793	\$401,710
	Stab Valve			Total	\$1,174,893	\$401,710
	Fire Ext.					
				Norward Energy Service (Baker Atlas Division)		Ross Rutherford / Martin Mueller
				RIG OR CONTRACTOR		CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Rig out test equipment.

Finish rig out of Norward well test equipment.

Equipment will be transported to (1) Chevron side of Liard River barge landing (2) Norward Grande Prairie shop or (3) Nowward Ft St John storage yard.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Liard K-29**WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 16, 1999**Day Number : **13**

D A Y C R E W N I G H T C R E W	CREW		FROM	TO	TIME SUMMARY		
	Driller						
	Derrick						
	Derrick						
	Motorman						
	Floor						
	Floor						
	Lease						
	Accum Press.						
	Air Shut Off						
PP&E Summary:							
		Near miss incidents - none to report Spills or emissions - none to report					
		Today		Cumulative		Retest Operation Only	
		Tangible		\$474,100			
		Intangible	\$58,110	\$686,043	\$386,960		
		Total		\$1,160,143	\$386,960		
		Norward Energy Service (Baker Atlas Division)			Ross Rutherford / Martin Mueller		
		RIG OR CONTRACTOR			CONTRACTOR REP.		

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
 Flow well for short term evaluation.

DETAILS: Await final interpretation of Lee Tool LMR results. Start to rig out test equipment.

Wait for final interpretation of Lee Tool LMR gauge data - none of the data provides bottom hole pressure for the entire flow interval.

Begin rig out of Norward well test equipment for transport to (1) Chevron side of Liard River barge landing or (2) Norward Grande Prairie shop.



PRODUCTION TOUR REPORT

Well Name: **Chevron et al Liard K-29**WBSE# **RWVNC - R9023 - 500 (tubing changeout and retest)**LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 15, 1999**Day Number : **12**

CREW		FROM	TO	TIME SUMMARY		
D	Driller			7:00	8:20	Rig up slickline.
A	Derrick			8:20	9:00	RIH. Tag gauges high. Could not latch. Hoist.
Y	Motorman			9:00	10:00	RIH impression block. Set down weight. Hoist.
C	Floor			10:00	10:40	RIH JDC tool. Stab down. Could not latch. Hoist.
R	Floor			10:40	11:30	RIH JDC with larger skirt. Latch gauge set #2. Hoist.
E	Lease			11:30	15:45	Lay down lubricator. Modem data to Calgary. Stand by for interpretation.
W	Accum Press.			15:45	16:10	Pick up lubricator.
N	Air Shut Off			16:10	16:45	RIH. Jar gauges loose from setting depth. Hoist.
I	Stab Valve			16:45	17:30	RIH. Latch and retrieve finned dart.
G	Fire Ext.			17:30	18:15	Rig out slickline.
H	H2S					
T	Driller					
C	Derrick					
R	Derrick					
E	Motorman					
W	Floor					
	Floor					
	BOP					
	Accum Press.					
	Air Shut Off					
	Stab Valve					
	Fire Ext.					
PP&E Summary:						
Near miss Incidents - none to report						
Spills or emissions - none to report						
				Today	Cumulative	Retest Operation Only
Tangible					\$474,100	
Intangible				\$19,670	\$627,933	\$328,850
Total					\$1,102,033	\$328,850
				Norward Energy Service (Baker Atlas Division)		Ross Rutherford / Martin Mueller
				RIG OR CONTRACTOR		CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Pull Lee Tool LMR gauge set #2 and gauge set #1.

Move Lee Tool slickline unit to location. Rig up onto wellhead.

Run in hole Camco JDC tool to recover Lee Tool LMR gauge set #2. Tag wellbore obstruction at 2452 mKB - xover from 177.8 mm to 114.3 mm. Work tool string to get past obstruction (?) down to 2470 meters. No spang jar action at run depth - suspect that wellbore obstruction may be beside slickline tool string. Hoist tools.

Make up 56.64 mm OD lead impression block. RIH - did not tag any obstruction at 177.8 mm x 114.3 mm xover. RIH to 2470 meters - jar down to create impression. Hoist tools - found impression of LMR pressure gauge fishing neck - apparently tools were found higher on slickline run #1, but worked lower to original setting depth.

Make up Camco JDC tool. RIH - tagged top of LMR gauges at correct depth 2470 meters. Set weight down to engage tool onto fishing neck. Hoist tools - no LMR recorders; failed to engage onto top of tools.

Make up Camco JDC tool with larger 55.88 mm OD skirt. RIH - set weight down to engage onto neck of LMR gauges. Pull gauges off bottom 11:12 AM September 15 1999. Hoist tools - found tandem hold down at top of LMR gauges damaged. One of two arms broken from each of the two hold down assemblies (ie - 2 small arms left in wellbore). Sliding hold down mandrel bent at 20 degrees between two hold down assemblies. Suspect that hold down assembly ineffective at high gas velocity inside 88.9 mm tailpipe during well flow period - hold down likely effective at first, but then slid upwards in 88.9 mm tubing joint into larger ID Baker packer release extension; where arms were sheared off allowing LMR recorders to float upwards into 177.8 mm production tubing string.

Download stored information from LMR gauges - bottom gauge quit 55 minutes into flow period (likely when hold down failed). Unable to download any data from top gauge - may be able to retrieve data from gauge memory at Lee Tool Red Deer shop.

RIH - latch onto Lee Tool LMR gauge set #1. Pull up on tool string - stuck in hole. Jar LMR gauges with spang jars 4 times to free from setting depth 2474 mKB (on top of finned dart set on Otis R nipple profile). Pull gauges off bottom 16:30 hours September 15 1999. Hoist tools.

Download gauge data - bottom gauge memory contained only sporadic accurate data, top gauge memory contained accurate pressure / time data until hour 29 (approx start of last flow test rate) when a ten hour period of flow / buildup data is missing - **none of four LMR gauges successful in recording flow data !**

RIH. Latch onto Lee Tool finned dart (modified with flow holes through center stem and through side fins) sitting on top of Otis R nipple at 2477.43 mKB. Hoist tool string - lay down dart.

Rig slickline equipment off wellhead. Make up wellhead cap onto top of 103.2 mm swab valve. Send LMR data to Calgary for initial interpretation. Suspend operations overnight before further operations.



PRODUCTION TOUR REPORT

Well Name: **Chevron et al Liard K-29**

WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)

LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 14, 1999**Day Number : **11**

CREW		FROM	TO	TIME SUMMARY		
D	Driller		8:00	9:00	Rig in Dowell skid to Weatherford manifold header.	
A	Derrick		9:00	10:00	Pressure test Norward surface piping to 1400 kPa / 30000 kPa for 20 minutes each test.	
Y	Derrick		10:00	14:00	Prepare Norward equipment for flow test - final equipment adjustments etc.	
C	Motorman		14:00	14:15	Conduct safety meeting.	
R	Floor		14:15	20:30	Flow well desired rate #1.	
E	Floor		20:30	22:00	Decrease choke #1 to flow well desired rate #2 - 1550 e3m3/day target.	
W	Lease		22:00	23:59	Decrease choke #1 to flow well desired rate #3 - 960 e3m3/day target.	
	Accum Press.				Shut well in. Flow complete.	
	Air Shut Off					
	Stab Valve					
	Fire Ext.					
	H2S					
N	Driller				Note: Casing valve tied into 64 m3 tank to vent annular thermal expansion.	
I	Derrick					
G	Derrick					
H	Motorman					
T	Floor				PP&E Summary: Safety meeting - well test parameters, safety eqt, hazards present.	
C	Floor				Near miss Incidents - none to report	
R	BOP				Spills or emissions - none to report	
E	Accum Press.					
W	Air Shut Off					
	Stab Valve					
	Fire Ext.					
					Today	
					Cumulative	
					Retest Operation Only	
	Tangible				\$474,100	
	Intangible				\$608,263	\$309,180
	Total				\$1,082,363	\$309,180
					Norward Energy Service (Baker Atlas Division)	
					Ross Rutherford / Martin Mueller	
					RIG OR CONTRACTOR	
					CONTRACTOR REP.	

JOB OBJECTIVE:

Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.

Flow well for short term evaluation.

DETAILS:

Flow well to evaluate.

Complete final rig in of Norward Energy Services well test equipment. Equipment consists of two separate flow test trains - each train connected to one side of 179.4 mm Barber wellhead flow cross. Test train #1 consists of ESD valve, 76 mm 69000 kPa flanged flowline, choke manifold / line heater LH25 skid, high pressure TU29 separator, low pressure separator TK25 flowback vessel and 203 mm x 27 meter flare stack. Test train #2 consists of ESD valve, 76.2 mm 69000 kPa Graylok flowline, Weatherford 35000 kPa drilling rig choke manifold, low pressure flowback vessel TK37 36 m3 capacity 203 mm meter run, 203 mm x 29 meter flare stack. Norward DARTS pressure and temperature electronic monitoring package rigged in to monitor directly on top of wellhead, and downstream on each test train flowline.

Pressure test Norward piping to 1400 kPa low, 30000 kPa high with Dowell pump skid. Conduct safety meeting with Norward test crew.

Open well to flow as follows:

	Tubing kPa	Gas Rate e3m3/day	Cum Gas e3m3	Cond Rate m3 / day	Water Rate m3 / day	WGR m3/e3m3	Comments
14:15	17800	Open well to test train #2 to initiate flow from well until semi stable. Increase choke in increments until wide open.					
14:30	15435						
14:45		Open well to test train #1 to bring flowrate up to desired test rate. Increase choke in increments until wide open.					
15:00	15255	1590	Gas meters in service		912	5.159	
15:30	13906	1941	42.4	0.0	204	0.105	
16:00	11138	2059	85.8	0.0	418	0.203	
16:30	10867	2059	128.9	0.0	154	0.075	
17:00	10986	2072	172.1	0.0	62	0.030	
17:30	11093	2154	215.9	0.0	115	0.053	
18:00	11047	2158	261.0	0.0	86	0.040	
18:30	11205	2198	306.5	0.0	86	0.039	
19:00	11328	2233	352.4	0.0	51	0.023	
19:30	11459	2261	399.2	0.0	62	0.028	
20:00	11419	2271	446.3	0.0	55	0.024	
20:30	11312	2249	493.3	0.0	57	0.025	
20:30		Decrease choke size test train #1 to lower flowrate to desired rate #2					
21:00	17812	1709	531.8	0.0	24	0.014	
21:30	17843	1676	566.8	0.0	20	0.012	
22:00	20382	1676	601.7	0.0	19	0.011	
22:00		Decrease choke size test train #1; shut in test train #2 to lower flowrate to desired rate #3					
22:30	22005	961	621.7	0.0	5	0.005	
23:00	22072	952	641.6	0.0	10	0.010	
23:30	22084	950	661.4	0.0	10	0.010	
23:59	22091	952	681.2	0.0	10	0.010	
23:59		Shut well in. Flow evaluation complete.					

Company Representative :

Curtis Triomphé / BJ Kalsi

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Liard K-29**LSD : **K-29 (within grid area 60° 30' 123° 30')**WBSE# **RWWNC - R9023 - 500 (tubing changeout and retest)**Date : **September 13, 1999**Day Number : **10**

CREW		FROM	TO	TIME SUMMARY	
D A Y C R E W N I G H T C R E W	Driller Derrick Derrick Motorman Floor Floor Lease Accum Press. Air Shut Off Stab Valve Fire Ext. H2S Driller Derrick Derrick Motorman Floor Floor BOP Accum Press. Air Shut Off Stab Valve Fire Ext.	8:00 8:50 9:50 9:10 10:15 10:45 12:00 14:00 14:45 15:20 16:30 17:40	8:50 9:10 10:15 10:45 12:00 14:45 14:45 15:20 16:30 17:40 18:30	Night watch on location overnight. Rig up Dowell pump skid to Norward manifold. Conduct safety meeting. Pressure test surface lines. Kill well with 60 m3 1125 kg/m3 NaCl fluid. Unstab lubricator. Pull out wire from wellhead valves. Lay down tangled wire recovered in 88.9 mm wire grab. RIH overshot. Latch onto Kinley cable cutter. Set weight down to push down perf gun fish. Hoist. Change over to slickline equipment. Run finned dart. Run LMR recorder set #1. Run LMR recorder set #2. Rig out slickline.	
				PP&E Summary: Three crew members soaked in NaCl during unstab operation; sent to camp to shower and change clothes. Near miss incidents - none to report Spills or emissions - none to report	
				Today	Cumulative
				\$474,100	
				\$23,660	\$590,393
				Total	\$291,310
				\$1,064,493	\$291,310
				Lee Tool (Schlumberger Division)	Don Hunt / Dale Sallstrom
				RIG OR CONTRACTOR	CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Fish out Kinley cable cutter tool. Ensure perforating gun assembly has dropped to below tailpipe perforations
Run LMR pressure gauges

0800 hours - check tubing pressure @ 21000 kPa (tubing string fully inverted to gas).

Dowell crew on location overnight to mix 60 m3 NaCl fluid to 1125 kg/m3 (to balance formation pressure with hydrostatic column from surface to tailpipe perforations). Wireline night crew on location to ensure lubricator / grease injection secure (wellhead master valves left open during night due to dangling wire still through master valves).

Rig in Dowell skid pumper unit to Norward test manifold. Pressure test Dowell surface piping to 33000 kPa. Conduct safety meeting to assign specific job responsibilities, outline job scope, discuss safety hazards and equipment usage.

Open Norward test manifold to wellhead - SITP 22,000 kPa. Pump 60 m3 1125 kg/m3 NaCl fluid to tubing string to kill well. Initial pump rate 0.4 m3/minute increasing to 1.2 m3 / min as pressure decreased. Stop pump - tubing pressure zero kPa. Open 177.8 mm lubricator needle valve - slight fluid flow from needle valve. Open wellhead wing valve to allow fluid from lubricator to drain to Norward test equipment. Unstab wireline lubricator - slight to moderate NaCl fluid flow over wireline BOP's. Single strand of fished out wireline visible hanging from bottom of wireline lubricator down into BOP / wellhead assembly. Rotate top master valve closed - obtained full 31 turns to fully close valve. Pull out coiled up wireline from wellhead flow cross / wireline BOP's.

Lower wireline fishing tool string from wireline lubricator to expose slickline tool string and 88.9 mm wireline grab - full of wireline wrapped around internal barbs. Total wireline recovered 18 lineal meters (estimated total wireline recovered 54 meters of total 60 meters left in well). Suspect that remaining wire is below the stuck perforating gun.

Lay down 177.8 mm wireline lubricator equipment. Make up wireline fishing tool string with Bowen overshot to latch onto top of Kinley cable cutter assembly. Open wellhead valves - 4000 kPa SITP (well inverting from NaCl kill fluid back to gas). RIH wireline tool string. Tag top of cutter bar assembly (and remaining perforating gun fish) at 2515 meters. Set down weight twice to engage overshot onto cutter assembly neck - fish dislodged and fell below 88.9 mm tailpipe perforations to 2529.3 meters KB (bottom of fish likely resting on wellbore fill debris which prevented further stroke bailer runs on September 8 1999). Jar down on fish to engage Bowen overshot onto neck of Kinley cable cutter. Hoist wireline - lay down Kinley cable cutter. Wellbore fish left in hole = 34.9 mm OD wireline rope socket (with 25.4 mm fishing neck for JDC tool, 42.9 mm OD CCL tool, top adaptor sub, 54 mm x 6 meter hollow steel carrier perforating gun, bottom adaptor sub - top of fish at 2529.3 mKB Total fish length 7.8 meters).

Change over from electric wireline to slickline equipment. Make up 67.94 mm OD finned dart (modified with flow holes through center mandrel and through side fins). Run in hole. Set dart on top of 65.02 mm Otis R nipple at 2477.43 mKB. Hoist slickline tools.

Make up set #1 Lee Tool LMR 16K quartz pressure gauges (clocks activated 15:39 hours Sept 13 1999). Run in hole with 88.9 mm holdown assembly - land on top of finned dart at 2477.43 mKB (on bottom 16:17 hours Sept 13 1999). Hoist slickline tools. Make up set #2 Lee Tool LMR 16K pressure gauges (clocks activated 16:41 hours Sept 13 1999). Run in hole with 88.9 mm holdown - land pressure gauges on top of set #1 (on bottom 17:23 hours Sept 13 1999). Hoist slickline tools.

Rig out Lee Tool equipment. Well ready to flow to evaluate flow potential through 177.8 mm production tubing.

PRODUCTION TOUR REPORT

Well Name: **Chevron etal Liard K-29**

WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)

LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 12, 1999**Day Number : **9**

CREW		FROM	TO	TIME SUMMARY			
D A Y C R E W N I G H T C R E W	Driller Derrick Derrick Motorman Floor Floor Lease Accum Press. Air Shut Off Stab Valve Fire Ext. H2S Driller Derrick Derrick Motorman Floor Floor BOP Accum Press. Air Shut Off Stab Valve Fire Ext.	8:00	12:30	RIH 101 mm wireline grab. Latch on to fish. Jar for 15 minutes. Pulled wire loose. Hoist. Recovered 1 meter wire.			
		12:30	13:20	Make up 88.9 mm wireline grab. RIH. Jar for 30 minutes. Hoist - no wireline grab recovered; left on bottom.			
		13:20	14:00	Repin JDC pulling tool. RIH. Latch onto wire grab fishing neck. Jar for 20 minutes. Hoist - no wire grab.			
		14:00	15:45	Make up heavier 88.9 mm JDC wireline assembly. RIH. Could not latch onto fishing neck of wireline grab. Hoist.			
		15:45	17:45	RIH with longer extension in 88.9 mm JDC assembly. Latch fish. Jar for 30 minutes. Tool sheared. Hoist.			
		17:45	19:45	Make up 88.9 mm JDC with hard steel pin; and 101 mm JDC with soft steel pin. RIH. Could not latch. Hoist.			
		19:45	20:30	Make up 88.9 mm JDC with soft steel pin. RIH. Jar for 10 minutes - pull wire from fish. Hoist.			
		20:30	21:00	Attempt to close wellhead. Secure well. Night watch on location overnight.			
		21:00	0:00				
		0:00	0:00				
		0:00	0:00				
		0:00					
PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report							
				Today	Cumulative	Retest Operation Only	
					\$474,100		
				Tangible	\$38,660	\$267,650	
				Intangible	\$566,733		
				Total	\$1,040,833	\$267,650	
					Lee Tool (Schlumberger Division)	Don Hunt / Dale Sallstrom	
					RIG OR CONTRACTOR	CONTRACTOR REP.	

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Fish out cut off electric wireline.

0800 hours - check tubing pressure @ 21000 kPa (tubing string fully inverted to gas).

Make up and RIH with 101 mm wire grab. Log CCL collar strip, set down weight onto wire at 2464 meters (top of Baker SC-2P retrievable packer). Latched onto wire on first attempt. Jar for 15 minutes - pulled some wire free from fish. Hoist tool string - found 1 meter piece of wire inside wire grab.

Make up 88.9 mm wire grab (to enable wire engagement inside Baker SC-2P retrievable packer bore). RIH on 63 mm Camco JDC pulling tool. Jar for 30 minutes - pulled free from fish. Hoist wireline tools - 88.9 mm wire grab left on bottom (downward jarring due to tool recoil apparently sheared 54 mm JDC steel pin to release running tool fishing neck from pulling tool).

Make up redressed 63 mm Camco JDC pulling tool. RIH - stab around on bottom to latch onto fishing neck of 88.9 mm wire grab (suspect that fishing neck sticking up from Baker SC-2P packer bore up into 114.3 mm Incoloy joint). Jar for 20 minutes - pulled free from fish. Hoist wireline tools - again 54 mm Camco JDC tool sheared leaving 88.9 mm wire grab on bottom.

Make up 44.5 mm positive grab Bowen overshot onto wireline extension bar with fishing neck and 88.9 mm Camco JDC pulling tool. Run assembly in hole. Stab down on bottom - could not engage overshot onto fishing neck of 88.9 mm wire grab. Suspect that the extension length below the 88.9 mm JDC pulling tool is too short to reach the fish before the pulling tool tags out on the packer mandrel top. Hoist tools. Add in 2.6 meter extension bar between 88.9 mm JDC tool and the 63 mm positive grab tool. RIH - latch onto fish neck. Jar for 30 minutes - 88.9 mm JDC tool sheared from fishing neck; leaving 88.9 mm wireline grab, Bowen overshot and 88.9 mm fishing neck in wellbore.

Make up redressed 88.9 mm JDC pulling tool with unshearable carbide steel pin and 101 mm JDC pulling tool with shearable steel pin. RIH - stab down; could not latch onto 88.9 mm fishing neck, could only get friction bite on fishing neck. Hoist tools. Examine 88.9 mm JDC pulling tool - all OK.

Make up tool string with 88.9 mm JDC pulling tool (lay down 101 mm JDC). RIH - stab down; work 88.9 mm JDC pulling tool onto slickline fishing neck. Jar for 10 minutes - pulled some wire free from fish (weight indicator 50 dN heavier). Hoist tools. Close bottom master valve - only able to close valve 26 of 31 total turns. Suspect that wire suspended below slickline fishing tools is still through master valves.

Secure well for night - 3 man night crew on location to monitor wireline lubricator. Dowell crew on location to mix NaCl kill fluid to 1120 kg/m³.

Will pump kill fluid to well tomorrow morning to kill well to allow removal of wireline fish.

PRODUCTION TOUR REPORT

Well Name: **Chevron etal Liard K-29**WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 11, 1999 (and Sept 10 99)**Day Number : **7 and 8**

	CREW		FROM	TO	TIME SUMMARY		
	Driller	Derrick			September 10 1999	Operations suspended - awaiting delivery of specialized wireline equipment from Lee Tool Red Deer.	
D	Derrick				September 11 1999		
A	Motorman						
Y	Floor	8:00	12:30		Wait for truck to arrive on barge. Rig up 177.8 mm wireline BOP and lubricator.		
C	Floor	12:30	13:20		Make up wireline fishing tool string and wire grab.		
R	Lease	13:20	14:00		RIH. Set weight on bottom - latch onto fish first try.		
E	Accum Press.	14:00	14:50		Work tools to jar on fish - pull loose with fish still in wireline grab.		
W	Air Shut Off	14:50	16:15		Hoist wireline. Lay down lubricator - recovered 30 meters electric wireline.		
N	Stab Valve	16:15	17:30		RIH 88.9 mm OD impression block. Hoist. Found wire markings on side edge of block.		
I	Fire Ext.	17:30	19:00		Make up wireline grab. RIH. Jar for 20 minutes. Hoist - recovered 1 meter wire.		
G	H2S	19:00	21:40		RIH wireline grab. Latch on to fish. Jar for 1.5 hours. Pulled wire loose. Hoist. Recovered 1 meter wire.		
H	Driller	21:40	22:30		Secure well for night. Tie new wireline rope socket. Repin pulling tool.		
T	Derrick				PP&E Summary:		
C	Motorman				Near miss Incidents - Sept 10 99 C&W Trucking swamper slipped from truck deck; sore ribs and wrist.		
R	Floor				Spills or emissions - none to report		
E	Floor						
W	BOP						
	Accum Press.				Today	Cumulative	Retest Operation Only
	Air Shut Off				\$474,100		
	Stab Valve				\$38,250	\$528,073	\$228,990
	Fire Ext.				Total	\$1,002,173	\$228,990
					Lee Tool (Schlumberger Division)		Don Hunt / Dale Sallstrom
					RIG OR CONTRACTOR		CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Wait for wireline fishing tools.
Fish out cut off electric wireline.

0800 hours - check tubing pressure @ 15200 kPa (inhibited fresh water from tubing string inverting into open hole interval - pressure increasing at a rate of 200 kPa per hour).

Unload and make up Alberta Subsurface Tools rental 177.8 mm wireline BOP assembly onto wellhead. Make up 2 joints 177.8 mm lubricator and 2 joints 88.9 mm lubricator c/w Lee Tool grease injection eqt. Make up wireline fishing tool string consisting of CCL, 54 mm OD weight bars, 54 mm hydraulic and spang jars, 101 mm JDC pulling tool and 101 mm three arm slotted wireline grab (with internal finger grabs). Run assembly in hole. Set down onto suspected accumulation of cut off electric wireline at 2453 mKB. Pull up on tools - latched onto wire first attempt. Work tools for 1 hour to jar on stuck wireline to pull wireline fish free. Hoist wireline tools - weight indicator showing tool string 50 dN heavier. Lay down lubricator - found 30 meters wireline wrapped into wireline grab - with a 1 meter stub hanging from the bottom. Top end of wire showed markings of Kinley cable cut, bottom end of wire had one loop (ie as in a half hitch knot) 50 mm in diameter - perhaps indicating that the loop at one time was wrapped around the stuck perforating gun tool string top (?).

Make up 88.9 mm OD impression block onto wireline tool string. Run assembly into hole. Tag top of wellbore fish at 2454 meters - slightly lower than previous tag; still inside 114.3 mm Incoloy joint immediately above 244.5 mm Guiberson HT permanent packer. Jar down to create impression on lead face of block. Hoist - found wire markings on side edge of impression block; but no markings of the fish neck of the Kinley cable cutter, or of the perforating assembly.

Make up 101 mm three arm internal wire grab as previous. RIH. Latch onto wire on first attempt. Jar up for 20 minutes - pulled some wire free from fish. Hoist tool string - found 1 meter of wire tangled inside wire grab.

RIH with 101 mm wire grab. Set down weight onto wire at 2455 meters - latched onto wire on first attempt. Jar for 1.5 hours - working tools 6 meters deeper to 2462 meters (near bottom of 114.3 mm Incoloy permanent packer tailpipe joint). Pulled some wire free from fish. Hoist tool string - found 2 sections (one 1 meter piece, one 0.5 meter piece) of wire inside / wrapped around wire grab.

Secure well for night. Ready to continue fishing operations tomorrow.

PRODUCTION TOUR REPORT

Well Name: **Chevron etal Liard K-29**WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)LSD : K-29 (within grid area 60° 30' 123° 30')Date : September 9, 1999Day Number : 6

CREW		FROM	TO	TIME SUMMARY		
D A Y C R E W	Driller		8:00	8:15	Work stuck tools - perforating gun stuck same as yesterday.	
	Derrick		8:15	9:50	Close BOP's to make up Kinley cutter onto Lee Tool wireline - BOP's leaking.	
	Derrick		9:50	10:50	Open BOP's / close BOP's - bleed off lubricator, OK.	
	Motorman		10:50	12:20	Install Kinley cutter onto wireline.	
	Floor		12:20	13:25	Open BOP's to drop cutter. Wait for cutter to drop to bottom.	
	Floor		13:25	14:45	Hoist wireline. Lay down lubricator - no cutter on cut off end of wireline.	
	Lease		14:45	16:15	Make up new wireline rope socket and braided line fishing tool string.	
	Accum Press.		16:15	17:50	RIH - stab down with overshot on bottom. Hoist tools - examine markings on overshot shoe.	
	Air Shut Off		17:50	19:00	RIH - stab down with impression block on bottom. Hoist tools - examine markings on impression block.	
	Stab Valve					
N I G H T C R E W	Fire Ext.					
	H2S					
	Driller					
	Derrick					
	Derrick					
	Motorman					
	Floor					
	Floor					
	BOP					
	Accum Press.					
PP&E Summary:						
Near miss incidents - none to report						
Spills or emissions - none to report						
				Today	Cumulative	Retest Operation Only
				\$474,100		
				\$48,538	\$489,823	\$190,740
				Total	\$963,923	\$190,740
				Lee Tool (Schlumberger Division)		Don Hunt / Dale Sallstrom
				Norward Energy Services		Ross Rutherford / Martin Mueller
				RIG OR CONTRACTOR		CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Drop wireline cutter bar to cut Lee Tool electric line from stuck perforating gun.
Evaluate top of wellbore fish.

Continue to work Lee Tool electric wireline - 54 mm OD tailpipe perforating gun stuck in 65.02 mm Otis R nipple at 2477.43 mKB.
No progress - same as yesterday.

Make up Bonnett Wireline Kinley 33.4 mm OD Timed Cable Cutter to cut off Lee Tool electric wireline from stuck perforating gun
(can not pull from rope socket).

Close Lee Tool Bowen wireline BOP's. Open lubricator bleed valve to depressurize 5700 kPa pressure - lubricator would not depressurize below 5600 kPa; BOP rams leaking. Open BOP rams, reclose BOP rams. Open bleed valve - lubricator bled off to near zero (estimate 50 kPa) - but still slight leak through BOP ram blocks. Evaluate BOP leak for 40 minutes - steady. Move picker boom slightly to reposition top of lubricator - BOP leakage increased slightly (to estimate 100 kPa) as wireline pulled slightly through BOP ram blocks. Continue to bleed off lubricator - pressure bled to zero; OK (wireline apparently previously positioned improperly through rams).

Unstab lubricator from top of BOP's. Insert batteries and install Kinley Cable Cutter around Lee Tool 5.6 mm wireline. Restab lubricator onto BOP top. Wait for 40 minutes - to run down Cable Cutter timer so that tool drops to bottom just prior to timer 66 minute cutter activation (to reduce tool exposure to high bottom hole temp). Open wireline BOP's - cable cutter assembly dropped to bottom around Lee Tool wireline - work slack cable into cable while cutter dropping to bottom. Wait for 66 minute cable cutter timer to expire and activate cutter assembly. Pull up on wireline - pulled over string weight; wireline not cut by Kinley Cable Cutter. Wait 10 minutes - pull up on wireline; still not cut by Kinley Cable Cutter. Wait additional 20 minutes; pulled to 1400 dN - pulled free from stuck 54 mm OD perforating gun.

Hoist wireline from wellbore - wireline pulled tight with depth counter at 62 meters. Stop, close wireline BOP's / swab valve and lay down lubricator. Found cut off 5.6 mm wireline end stuck into lubricator grease tube - no Kinley Cable Cutter crimped onto cut off end as designed. Apparently Kinley cutter fell to within 62 meters of perforating gun, stopped, then cut or partially cut off Lee Tool wireline. **Suspect that 62 meters of wireline now on bottom above perforating gun, with Kinley Cable Cutter sitting on top.**

Re tie wireline rope socket. Make up braided line fishing tool string with CCL, weight bars, hydraulic jar, spang jar and Bowen 27.0 mm ID grapple overshot (to engage onto fishing neck of Kinley cutter). Run assembly in hole. Correlate on depth to collar strip - tag wellbore fish top at 177.8 mm x 114.3 mm over at 2442.87 meters KB. Stab down with tool string to engage overshot onto cable cutter fishing neck. Hoist tools - no Kinley Cable Cutter in overshot.

Make up 57.15 mm OD impression block onto wireline tool string. Run assembly into hole. Tag top of wellbore fish at 2442 meters. Jar down to create impression - pulled 100 dN over string weight to come free from bottom. Hoist impression block - found markings along side of impression block of perhaps cable cutter rope socket, and markings of electric wireline on face of impression block.

Secure well. Order out larger diameter impression blocks, wire grabs and lubricator equipment from Lee Tool Red Deer.



PRODUCTION TOUR REPORT

Well Name: **Chevron etal Liard K-29**WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 8, 1999**Day Number : **5**

CREW		FROM	TO	TIME SUMMARY		
D A Y C R E W	Driller					
	Derrick	8:00	8:15	Prepare wireline equipment.		
	Derrick	8:15	9:50	Work tool string - pull free from wellbore debris. Hoist tools.		
	Motorman	9:50	10:50	Run gauge ring.		
	Floor	10:50	12:30	Run bailer.		
	Floor	12:30	13:30	Run bailer.		
	Lease	13:30	16:00	Change over to electric wireline equipment. Make up perf gun.		
	Accum Press.	16:00	18:00	RIH. Log onto depth. Perforate tailpipe interval.		
	Air Shut Off	18:00	20:30	Work stuck tools. Shut down for night.		
	Stab Valve					
N I G H T C R E W	Fire Ext.					
	H2S					
	Driller					
	Derrick					
	Derrick					
	Motorman					
	Floor					
	Floor					
	BOP					
	Accum Press.					
R E W	Air Shut Off					
	Stab Valve					
	Fire Ext.					
				PP&E Summary:		
				Near miss Incidents - none to report		
				Spills or emissions - none to report		
				Today	Cummulative	Retest Operation Only
				Tangible	\$474,100	
				Intangible	\$24,355	\$142,202
				Total	\$915,385	\$142,202
				Lee Tool (Schlumberger Division)		Don Hunt
				Norward Energy Services		Ross Rutherford / Martin Mueller
				RIG OR CONTRACTOR		CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Free stuck slickline tools. Bail well debris with little progress. Perforate 88.9 mm tailpipe above debris.

Continue to work Lee Tool slickline tools - stuck in wellbore debris at 2583 meters. After sitting overnight with 400 dN tension pulled into tools - spang jar action evident on first stroke up. Continue to work stuck tools, with hydraulic jar action evident after 5 minutes. Jar on tools to work free from wellbore debris at 2583 meters slickline measure. Hoist tools to surface - lay down tool string - all OK. Re tie slickline rope socket.

Pick up slickline tool string again. Make up 60.2 mm gauge ring. Run in hole on slickline. Tag wellbore debris (black clay based (?) material) at 2584 meters - 1 meter deeper than previous stuck point. Jar tools down - could not work through wellbore debris. Hoist gauge ring.

Make up slickline stroke bailer. Run in hole - tag wellbore debris at 2585.5 meters - 1.5 meters deeper than gauge ring tag depth. Stroke bailer to fill. Hoist bailer - tagged tight spot at 2533 meters. Work tools through tight spot - could come up; but could not go down past 2535 meters. Hoist bailer - barrel 1/2 full of same clay material.

Make up stroke bailer. Run in hole - tag wellbore debris at 2535 meters. Stroke bailer to fill - could not work bailer past 2537 meters. Apparently previous bailer run either (1) pulled up debris from lower in well, or (2) loosened more debris from tubing walls. Hoist bailer, clean out barrel and lay down. **Abort attempt to clean out wellbore debris from 88.9 mm tailpipe to pull Otis RN plug from tailpipe bottom 2650.34 meters KB.**

Rig up Lee Tool electric line equipment. Load 6 meter x 54 mm OD hollow steel carrier perforating gun with 14 gram shaped charges (designed for 12 mm diameter large entrance holes) at 13 shots per meter 90 degree phased. Run perforating gun in hole. Log CCL strip, and correlate on depth to Baker packer assembly and Otis R nipple at 2477.43 mKB. Position perforating gun charges across 88.9 mm tailpipe interval 2517 to 2523 meters KB. **Perforate tailpipe interval 2517 to 2523 meters KB (above wellbore debris plugging lowermost 88.9 mm tailpipe) to allow well to flow alongside tailpipe, then through tailpipe perforations.** Monitor wellbore pressure after perforating - increased to 4100 kPa (underbalance pressure with fresh water column in wellbore).

Pull up perforating guns - pulled 8 meters - GUNS STUCK. Work tools to 800 dN wireline pull for 1 hour - no progress. Pull to 900 dN - guns came free. Suspect that either (1) perforating gun swelled at detonation time (2) perforating gun split at detonation time (3) electric wireline wrapped around tools at detonation time or (4) wellbore debris fell in from above perforating guns.

Start out of hole with perforating gun assembly - pulling 200 dN heavy. Pulled up to Otis 65.02 mm R nipple at 2477.43 mKB - tools pulled tight to 800 dN. Work tool string up to 1000 dN - could not pull through restricted bore of Otis R nipple.

Increased pull in stages to 1250 dN to pull from wireline rope socket. Worked tools for 1 hour - unable to pull from rope socket (increasing suspicion that wireline is wrapped around perforating assembly).

Close wireline BOP's for night. Secure well with Norward test crew night watch. Order out additional wireline cutter equipment for morning.

PRODUCTION TOUR REPORT

Well Name: **Chevron etal Liard K-29**LSD : **K-29 (within grid area 60° 30' 123° 30')**WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)Date : **September 7, 1999**Day Number : **4**

CREW		FROM	TO	TIME SUMMARY	
D	Driller		8:00	8:30	Rig up Lee Tool slickline unit.
A	Derrick		8:30	14:30	Make 6 bailer runs.
Y	Motorman		14:30	15:30	RIH bailer run #7. Work through debris to 2614 m. Pull up to 2583 m - stuck in hole.
C	Floor		15:30	18:30	Work tool string - could not free.
R	Floor		18:30	19:00	Secure well for night.
E	Lease				
W	Accum Press.				
	Air Shut Off				
	Stab Valve				
	Fire Ext.				
	H2S				
N	Driller			PP&E Summary:	
I	Derrick			Near miss incidents - none to report	
G	Derrick			Spills or emissions - none to report	
H	Motorman				
T	Floor				
C	Floor				
R	BOP			Today	Cummulative
E	Accum Press.			\$474,100	
W	Air Shut Off			\$18,010	\$416,930
	Stab Valve			Total	\$891,030
	Fire Ext.			Lee Tool (Schlumberger Division)	Don Hunt
				Norward Energy Services	Ross Rutherford / Martin Mueller
				RIG OR CONTRACTOR	CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Bail wellbore debris from 88.9 mm tailpipe at 2583 meters slickline measure.

Continue to rig up Norward test equipment.

Pick up Lee Tool slickline equipment. Make up stroke bailer as previous day. Run in hole and tag soft wellbore debris at 2583 meters. Stroke bailer to fill. Hoist bailer - recovered baler full of black / brownish moist sticky clay based (?) wellbore fill.

Made 6 bailer runs - recovering same amount each time.

On 7th bailer run - worked bailer past 2583 meters slickline measure. Work tools up and down through 2583 interval - OK. Continue RIH to 2614 meters - tagged again on wellbore debris. Stroke tools to fill bailer. Hoist bailer - pulled tight at 2583 meters - tools stuck in hole. Work slickline tool string - could not go down, could not go up. Continue to work slickline tool string - no evidence of spang jar action; tools apparently stuck above spang jars.

Suspect that sticky wellbore debris fell in around top of tools when pulling up through interval at 2583 meters.

Continue to work tools - could not work free. Pull 400 dN tension into wireline (to safe working limit of 2.3 mm slickline). No tool string movement in 1 hour.

Secure well for night. Order out Kinley timed wireline cutter (to cut slickline from stuck tools) and perforating equipment (to perforate 88.9 mm tailpipe) above wellbore fish.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Liard K-29**

WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)

LSD : **K-29 (within grid area 60° 30' 123° 30')**Date : **September 6, 1999**Day Number : **3**

CREW		FROM	TO	TIME SUMMARY	
D A Y C R E W N I G H T C R E W	Driller				
	Derrick	8:00	14:00	Rig Norward test equipment.	
	Derrick	14:00	8:45	Rig up Lee Tool slickline unit.	
	Motorman	8:45	13:30	Conduct safety meeting. Pressure test wireline lubricator and wellhead flow cross.	
	Floor	13:30	14:00	RIH Otis GX pulling tool to latch Lee Tool junk catcher - tagged out at 2583 meters. Hoist tools.	
	Floor	14:00	19:00	RIH Lee Tool stroke bailer. Tag debris at 2583 meters; stroke bailer to fill. Hoist.	
	Lease	19:00	20:30	RIH Lee Tool stroke bailer. Tag debris at 2583 meters; stroke bailer to fill. Hoist.	
	Accum Press.	20:30	21:00		
	Air Shut Off				
	Stab Valve				
PP&E Summary:					
Near miss incidents - none to report					
Spills or emissions - none to report					
D A Y C R E W N I G H T C R E W			Today	Cummulative	
	Tangible Intangible			\$474,100	
				\$19,010	\$398,920
		Total		\$873,020	
	Fire Ext.		Lee Tool (Schlumberger Division)		Don Hunt
			Norward Energy Services		Ross Rutherford / Martin Mueller
			RIG OR CONTRACTOR		CONTRACTOR REP.

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe.
Flow well for short term evaluation.

DETAILS: Continue to rig up test equipment. Rig up Lee Tool slickline. Attempt to pull Otis plug - tagged wellbore debris.

Continue to rig up Norward test equipment.

Move Lee Tool slickline equipment to location. Make up slickline tool string and lubricator. Conduct safety meeting. Pressure test lubricator and flange with methanol water to 1400 kPa low / 28,000 kPa high for 10 minutes each test.

Make up and RIH Otis GS pulling tool to latch onto top of Lee Tool junk catcher landed on top of Otis 65.02 mm PRN plug at tailpipe bottom 2650.34 meters KB. Ran in tools to 2583 meters slickline measure - tagged wellbore debris (67 meters above tailpipe bottom); could not get deeper. Hoist tool string.

Make up 42 mm OD slickline stroke bailer. RIH - tag at same spot 2583 meters slickline measure. Stroke bailer to fill. Hoist bailer - barrel filled with 2 cups soft, moist, dark brown / black clay material (not entrained with pipe dope or other contaminants).

Make up bailer (with 2 barrel sections). Run in hole - wireline depth counter quit at 900 meters. Repair depth counter cable; continue RIH. Hoist bailer - recovered same wellbore debris as previous.

Secure well for night. Will continue to bail wellbore debris - suspect that debris is a short bridge in wellbore deviated build section.



PRODUCTION TOUR REPORT

Well Name: Chevron et al Liard K-29

WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)

LSD : K-29 (within grid area 60° 30' 123° 30')

Date : September 5, 1999

Day Number : 2

D A Y C R E W N I G H T C R E W F I R E E X T	CREW		FROM	TO	TIME SUMMARY
	Driller	Derrick	8:00	8:30	
Derrick			8:30	8:45	Make up microVertilog.
Motorman			8:45	13:30	Conduct 177.8 mm tubing inspection (logging in, and out until tool failure).
Floor			13:30	14:00	Rig out Baker Atlas equipment.
Floor			14:00	19:00	Rig Norward test equipment onto wellhead.
Lease					
Accum Press.					
Air Shut Off					
Stab Valve					
Fire Ext.					
H2S					
N I G H T C R E W F I R E E X T					
Driller					Note: Norward Energy Services crew on location spotting test equipment with CW Trucking picker, Mullen Commander and Beaver track hoe.
Derrick					
Derrick					
Motorman					
Floor					
Floor					
BOP					
Accum Press.					
Air Shut Off					
Stab Valve					
Fire Ext.					
C R E W F I R E E X T					
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JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe. Flow well for short term evaluation.

DETAILS: Run Baker Atlas microVertilog tubing inspection log. Continue rigup of Norward test equipment.

Pick up Baker Atlas wireline equipment. Make up Baker Atlas MVRT micro Vertilog magnetic flux tubing inspection tool.

Make up stub lubricator onto top of wellhead 179.4 mm 35000 kPa R46 flow cross.

Run Vertilog tool into wellbore - logging 177.8 mm 43.16 kg/m L80 tubing base corrosion log while running in hole. One tool magnetic coil failure at 710 meters (13 of total 14 coils still OK). Second and third coil failures at 2040 meters (11 of total 14 coils remaining operable). Fourth coil failure at 2300 meters, fifth coil failure at 2310 meters; coil failures continuing with depth until only 2 or 3 remaining operational at bottom logged depth bottom of 177.8 mm tubing at 2452.99 mKB (coil failures were not a tool electronic problem, but rather a problem of failure of a wire coil wrapped around the permanent magnet of one of the 14 separate coil apparatus). **Tool problems caused by high wellbore temperature** - mercury maximum recording thermometer inside tool registered 165 degrees Celcius (at run depth 2452 meters).

Log to bottom of 177.8 mm 56.55 kg/m CRA tubing joint - tag 114.3 mm x over with tools. Continue to log while POOH - but with little log data due to inoperable magnet coils.

Lay down and rig out Baker Atlas equipment. Vertilog prints not available on site due to computer problem merging surface data with tool memory data.

Continue to rig up Norward test equipment to flow well - to evaluate well performance through 177.8 mm production tubing (in comparison to modeled computer simulations).

PRODUCTION TOUR REPORT

Well Name: Chevron et al Liard K-29

WBSE# RWWNC - R9023 - 500 (tubing changeout and retest)

LSD : K-29 (within grid area 60° 30' 123° 30')

Date : September 4, 1999

Day Number :

1

CREW		FROM	TO	TIME SUMMARY	
D A Y C R E W	Driller Derrick Derrick Motorman Floor Floor Lease Accum Press. Air Shut Off Stab Valve Fire Ext. H2S	8:00 8:30 8:30 8:45 11:00 13:15 13:15 13:30 13:45 14:20 14:20 14:55 14:55 18:30 18:30	8:30 8:45 11:00 13:15 13:30 13:45 14:20 14:55 18:30 19:00	Remove 88.9 mm temporary capping wellhead. Install Barber back pressure valve in tubing hanger. Make up permanent Barber 161 mm wellhead. Pressure test wellhead with Falcon pressure tester unit. Remove top 114.3 mm swab valve. Remove Barber back pressure valve with long rod. Rig up Baker Atlas wireline equipment and multiarm caliper tool. RH. Extend caliper arms. Pull short depth correlation strip. Correlate on depth. POOH at 15 meters / minute logging multiarm caliper. Rig Baker Atlas equipment off wellhead. Secure well for night.	
				Note: Norward Energy Services crew on location spotting test equipment with CW Trucking bed truck and Beaver cat.	
				PP&E Summary: Safety meeting - H2S gas, emergency response, fluid spillage. Near miss incidents - none to report Spills or emissions - none to report	
				Today	
				Cummulative	
		BOP Accum Press. Air Shut Off Stab Valve	Tangible	\$474,100	
			Intangible	\$46,617	\$345,700
			Total	\$819,800	
		Baker Atlas Wireline Division		Lloyd Franchuk	
		Norward Energy Services		Ross Rutherford / Martin Mueller	
		RIG OR CONTRACTOR		CONTRACTOR REP.	

JOB OBJECTIVE: Install permanent wellhead. Conduct tubing inspection base logs. Pull Otis plug from tailpipe. Flow well for short term evaluation.

DETAILS: Change wellhead. Conduct Baker Atlas 60 arm mechanical caliper log.

Move to location CW Trucking picker truck and Barber Wellhead crew. Check SITP - 1200 kPa. Bleed off pressure (fresh water) in 20 seconds. Remove temporary capping wellhead top section from tubing head flange. Install 177.8 mm Barber two way back pressure valve in Barber tubing hanger. Make up replacement permanent 35000 kPa Barber wellhead top section(double 161.9 mm master valves, 179.4 mm flow cross, 103.2 mm wing valve and swab valve). Pressure test wellhead tubing hanger top seal and R54X tubing head ring gasket to 35000 kPa for 30 minutes - OK.

Pressure test wellhead against two way BPV to 1400 kPa low / 35000 kPa high for 10 minutes each test with fresh water - OK.

Remove top 103.2 mm swab valve. Pull Barber 2 way back pressure valve.

Rig in Baker Atlas electric wireline unit and stub lubricator onto wellhead flow cross top R46 flange. Make up Baker Atlas SondeX 101.6 mm OD 60 arm multifinger mechanical tubing caliper tool. Calibrate tool with jig. Run tools in hole to tag 114.3 mm xover at 2452.99 mKB (at bottom of 177.8 mm 55.55 kg/m CRA SM2550-125 tubing joint immediately above Halliburton latch assembly). Expand caliper arms, correlate on depth to 177.8 mm Hydril 563 pup joint collar immediately above Incoloy joint. **Log out of hole with 60 arm caliper tool recording base profile of 177.8 mm production tubing.**

Secure well for night. Will run Baker Atlas microVertilog tomorrow.