

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**
WBSE# RWWNC-R3004-500 (well completion and test)

LSD : **60deg 28'/123 deg 35'**
Date : February 24, 2004
Day Number : 1

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------------------------------|--------------|--|------------|-------|---|------------|-----------------|-------------------|
| | Driller | | 0:00 | 7:00 | Circ well and POOH with scraper/clean out assembly on DP | | | |
| | Derrick | | 7:00 | 11:45 | R/U tailpipe handling equip, M/U packer assembly | | | |
| | Floor | | 11:45 | 0:00 | RIH packer on DP | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| Diesel fuel usage (m3) | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| stationary eqpt on location | | | | | | | | |
| today | 17 | | Tangible | | | | | |
| cumulative | 324 | | Intangible | | | | | |
| | | | Total | | \$80,982 | \$80,982 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Akita Drilling # 48 | | Garth Legare | |
| today | 168 | | | | | | | |
| cumulative | 4,914 | | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: POOH scraper assembly, RIH with lower permanent packer on drillpipe

Wellsite operations turned from drilling to completions at start of day.

Continue to POOH with 177.8 mm scraper/drift mill (156.2 mm) assembly. Scraper was rotated through the shoe track assembly and the well circulated 2+ hole volumes with mud. Hole appears to weeping off ~ 1m3 in static condition. Current mud density = 1035 kg/m3.

Rig in FI Canada power tongs and handling equipment to make up packer tailpipe. Hold safety meeting and make up the following L-80 packer BHA:

- 2 jts
- 1 jt
- 114.3 mm PRN nipple c/w re-entry guide, 96.85 mm profile and 96.62 mm no-go
 - 114.3 mm 18.75 kg/m L-80 New Vam tubing
 - 114.3 mm 18.73 kg/m L-80 New Vam perforated pup 3 m (top m1 blank, bottom 2 m perf)
 - 114.3 mm 18.73 kg/m PR nipple 96.85 mm c/w PR plug in place *
 - 114.3 mm 18.75 kg/m L-80 New Vam tubing
 - 114.3 mm 18.73 kg/m L-80 New Vam pup 1.2 m
 - 177.8 mm Weatherford Ultra Pack double sealbore permanent packer c/w HNBR element
 - Weatherford packer running tool and 88.8 mm DP handling pup

* These items have been made up and pressure tested to 35 mpa in the shop
Packer tailpipe connections are 114.3 mm New Vam 18.73 kg/m L-80 torqued to 6,000 ft lbs following Vam Company running procedures.
Fill the tailpipe/packer assembly above the PR plug and the first 2 stands of DP with high vis polymer solution.

RIH packer assembly at controlled running rate of 2 mins/std. Fill DP every 500 m with mud using fill hose and monitor displacement from well to ensure fluid level is at surface.

Position packer top at 2892.6 mKB based on drill pipe tally (~ mid casing joint). Free up weight = 70,000 daN and down weight = 62,000 daN. Hold safety meeting re packer setting operations.

Operations 06:00 hrs/Feb 25th: POOH with packer setting tool in preparation of 2nd scraper run.

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : February 25, 2004

Day Number : 2

| DAY CREW | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------|-----------------------------|--------|------------|-------|---|------------|-----------------|-------------------|
| | Driller | | 0:00 | 1:30 | Press up DP and set packer, release from packer and press test | | | |
| | Derrick | | 1:30 | 3:30 | Circ well to water | | | |
| | Floor | | 3:30 | 7:30 | POOH with setting tool | | | |
| | Floor | | 7:30 | 21:45 | RIH with scraper, circ well with inhibited water, POOH with scraper | | | |
| | | | 21:45 | 22:30 | M/U 2nd packer assembly | | | |
| | | | 22:30 | 0:00 | RIH with 2nd packer | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | Diesel fuel usage (litres) | | | | | | | |
| | stationary eqpt on location | | | | | | | |
| | today | Feb 24 | Tangible | | Today | Cumulative | Total Approved | Scope Change Cost |
| | cumulative | Feb 24 | Intangible | | | | | |
| | | | Total | | \$131,982 | \$212,964 | \$2,087,900 | |
| | Contractor Hours (on site) | | | | Akita Drilling # 48 | | Garth Legare | |
| | today | 192 | | | | | | |
| | cumulative | 5,106 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Set lower packer, circ well to water. POOH with setting tool, round trip # scraper, RIH with upper packer

Packer top positioned at 2892.6 mKB, re-entry guide = 2925.9 mKB (177.8 mm liner shoe = 2912.0 mKB). Pressure up DP to 12 mpa and hold for 5 mins, increase pressure to 18 mpa and hold for 5 mins. Bleed off pressure and repeat previous pressure up sequence. Increase pressure to 21 mpa and hold, bleed off press 3 times and pressure up to 22 mpa. Hold 15 mpa and over pull packer to 10,000 daN, set down 10,000 daN.

Bleed off pressure and rotate DP 10 turns (mild compression) to easily release off the packer. Pull setting tool up 1.5 m and pressure test packer to 14.5 mpa for 10 mins with no leak off.

Circulate the 1040 kg/m3 mud from the well with water for 2 hours. Pump rate = 1.3 m3/min at 13.5 mpa. Hole volume = ~ 53 m2. Rotate and work the DP while circulating.

POOH with DP and laydown the packer setting tool.

Make up a 177.8 mm casing scraper with a 2m mule shoe stinger onto the bottom of the scraper and RIH on DP. Circulate down last two stands and sting into the packer with the mule shoe stinger. Circulate down a high vis polymer (100 + vis) sweep followed by 5 m3 water followed by another 2.5 m3 high vis sweep followed by water. Work the packer across the upper packer setting interval. Circulate the well with water at 1.23 m3/min at 12.8 mpa for 120 mins (147 m3 total, Hole vol = 60 m3).

Circulate the well over to inhibited fresh water (0.66 % Baker Petrolite CRW-132). POOH with the scraper assembly.

Rig in FI Canada power tongs and handling equipment to make up the upper packer and tailpipe. Hold safety meeting and make up the following CRA packer BHA:

- 1 jt
- 114.3 mm Weatherford Locator L-80 seal assembly c/w 2 ATR seal units

- 114.3 mm 18.75 kg/m L-80 New Vam tubing

- 114.3 mm 18.73 kg/m L-80 New Vam pup 1.2 m

- 114.3 mm 18.73 kg/m PR nipple 96.85 mm **CRA** *

- 114.3 mm 18.73 kg/m L-80 New Vam **CRA** pup 3 m *

- 177.8 mm Weatherford Ultra Pack double sealbore **CRA** permanent packer c/w HNBR element *

- Weatherford packer running tool and 88.8 mm DP handling pup

* These items have been made up and pressure tested to 35 mpa in the shop

Packer tailpipe connections are 114.3 mm New Vam 18.73 kg/m L-80 torqued to 6,000 ft lbs following Vam Company running procedures.

RIH packer assembly at controlled running rate of 2 mins/std.

Operations 06:00 hrs/Feb 26th: Continue to RIH with 2nd packer assembly on DP

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# **RWWNC-R3004-500 (well completion and test)**

LSD : **60deg 28'/123 deg 35'**

Date : **February 26, 2004**

Day Number : **3**

| | | | | | | | | |
|-------------------------------------|----------------------------|--------|------------|-------|---|------------|-----------------|-------------------|
| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
| | Driller | | 0:00 | 6:30 | Cont to RIH with 2nd packer on DP Set packer, release setting tool from packer R/U laydown machine, POOH and laydown DP Change equip over to run 127 mm tubing | | | |
| | Derrick | | 6:30 | 7:30 | | | | |
| | Floor | | 7:30 | 21:15 | | | | |
| | Floor | | 21:15 | 0:00 | | | | |
| | Accum Press. | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | | | | |
| | Diesel fuel usage (litres) | | | | | | | |
| | stationary eqt on location | | | | | | | |
| | today | Feb 24 | Tangible | | Today | Cumulative | Total Approved | Scope Change Cost |
| | cumulative | Feb 24 | Intangible | | | | | |
| | | | Total | | \$75,382 | \$288,346 | \$2,087,900 | |
| | Contractor Hours (on site) | | | | Akita Drilling # 48 | | Garth Legare | |
| | today | 291 | | | | | | |
| | cumulative | 5,397 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Set upper packer, POOH and laydown drillpipe, R/U equip to RIH with 127 mm production tbg

Continue to RIH with upper CRA packer on 88.9 mm DP.

Tag lower packer at 2892.6 mKB. Free up weight = 74,000 daN, free down weight = 64,000 daN.Hold safety meeting. Sting into lower packer with seal assembly of upper packer tailpipe and place in 5,000 daN compression (measured from down weight).

Pressure up DP to 7 mpa to ensure that the seals are landed into the lower packer (upper packer starts setting at 10 mpa). Pressure up DP in the following increments holding for 5min per increment: 7,12,18 and 21 mpa. Bleed off and repeat. Over pull the packer with 14 mpa applied to 10 daN over stg weight. Pressure up the DP to 21.7 mpa to shear setting ring. Rotate the setting tool off the packer.

Rig in FI Canada laydown machine and hold safety meeting. POOH and laydown the 88.9 mm drillpipe.

Change pipe rams from 88.9 mm to 127 mm and pressure test same. Rig in FI Canada pipe handling equipment: power tongs, computer torque monitoring system, laydown machine, thread washers, air automated elevators, slips and dog collar, etc.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# **RWWNC-R3004-500 (well completion and test)**

LSD : **60deg 28'/123 deg 35'**

Date : **February 27, 2004**

Day Number : **4**

| DAY CREW | CREW | | FROM | TO | TIME SUMMARY | | | |
|----------------------------|--------------|------------|-------|-------|---|------------|-----------------|-------------------|
| | Driller | | 0:00 | 2:30 | Con to R/U pipe handling equip | | | |
| | Derrick | | 2:30 | 23:00 | RIH with 127 mm tbg | | | |
| | Floor | | 23:00 | 0:00 | Space out tbg | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| Diesel fuel usage (litres) | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| stationary eqt on location | | | | | | | | |
| today | Feb 24 | Tangible | | | | | | |
| cumulative | Feb 24 | Intangible | | | | | | |
| | | | Total | | \$560,882 | \$849,208 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Akita Drilling # 48 | | Garth Legare | |
| today | 301 | | | | | | | |
| cumulative | 5,698 | | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: RIH and land the 127 mm production tubing

Cont. to R/I FI pipe handling equipment. Hold safety meeting.

Tubing to be made up and run as per Hydril Canada's published running procedures. RIH at controlled rate to ensure adequate time to clean, inspect and make up connections.

RIH with Weatherford Incoloy Latch Seal Assembly:

- Weatherford Incoloy Latch Seal Assembly (ATR Chevron Seals) 98.2 mm ID *
- 114.3 mm x 3 m 18.75 kg/m Incoloy New Vam pup *
- Crossover 127 mm 22.32 kg/m H513 box x 114.3 mm 18.75 kg/m New Vam pin L-80 *
- 127 mm 22.32 kg/m H513 L-80 3 m pup *

* Items have been made up in the shop and pressure tested to 35 mpa

RIH seal assembly on mixed string 127 mm Hydril 513 L-80 tubing: 22.32 kg/m and 26.79 kg/m tubing weights.
Make up torques : 22.32 kg/m = 5700 ft/lbs, 26.79 kg/m = 7800 ft/lbs

RIH with 169 jts, 2140.63 m of 127 mm Hydril 513 22.32 kg/m tubing.
Install a 4.94 m crossover joint 127 mm Hydril 513, 26.79 kg/m with 22.32 kg/m pin and 26.79 kg/m box.

Note: the two weights of 127 mm tubing are **not interchangeable**. The two weights of tubing need to be kept separated if the tubing is ever pulled from the well. Appropriate weight crossovers (stabbing valve), pick up nubbins and thread protectors required if the tubing string has to be pulled in the future.

Continue to RIH with 127 mm Hydril 513, 26.79 kg/m tubing.

Tubing weight including top drive and rig blocks: up = 75,00 daN , down = 65,000 daN
Top drive and rig block weight = 20,000 daN

Tag the upper packer landed at 2878.5 mKB. Sting into the packer with the seals and place the tubing in 10,000 daN compression. Confirm that the seals are latched into the packer with a 10,000 daN overpull. Release the seals from the packer (rotate the string to the right 9 turns) and add in the required pup joint (1.09 m). Install the ABB Vetco Incoloy tubing hanger onto the tubing string. Note : the tubing hanger has a pin x pin suspension sub (.99 m) installed in it.

Land the seals into packer and attempt to confirm with an overpull. Latch seal assembly keeps slipping out of packer with a 10,000 daN over pull.

Laydown tubing hanger and pup and rig up to circulate into packer to clean up potential solids bridge.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

LSD : **60deg 28'/123 deg 35'**

WBSE# **RWWNC-R3004-500 (well completion and test)**

Date : **February 28, 2004**

Day Number : **5**

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------------------------------|--------------|--------|------------|------|---|------------|-----------------|-------------------|
| | Driller | | 0:00 | 3:45 | Circ packer top, re space out and land tbg | | | |
| | Derrick | | 3:45 | 4:30 | Pressure test packer seals | | | |
| | Floor | | 4:30 | 6:00 | R/O pipe handling equip | | | |
| | Floor | | 6:00 | | Stand by for testing operations | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| Diesel fuel usage (litres) | | | | | | | | |
| stationary eqpt on location | | | | | | | | |
| today | | Feb 24 | Tangible | | Today | Cumulative | Total Approved | Scope Change Cost |
| cumulative | | Feb 24 | Intangible | | | | | |
| | | | Total | | \$70,182 | \$919,390 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Akita Drilling # 48 | | Garth Legare | |
| today | | 198 | | | | | | |
| cumulative | | 5,896 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Land sela assembly and standby for up coming well testing operations (7-10 days)

Circulate seal assembly into the packer top and reconfirm space out. Overpull tubing by 15,000 daN several times (good). Release and install tubing hanger and pups as per original space out. Land the tubing hanger and place the seal assembly in 10,000 daN compression. Confirm with 15,000 daN overpull twice.

Pressure test annulus against BOPs to 14 mpa with the tubing open to atmosphere for 20 mins (good).

Rig out FI Pipehandling equipment. Place rig on standby for 7-10 days pending testing operations. The ABB Vetco wellhead is delayed in arrival from the factory, estimated delivery to location is 3-4 days. Rig crews will dismantle parts of the BOP stack in the interim and fully when the wellhead shows up. A One Way Check BPV will be installed into the tubing hanger prior to dismantling of the BOP stack. Wellhead to be pressure tested as per ABB Vetco installation procedures.

Tubing string details:

| | | | | Top landed mKB |
|---------|--|---------|--|----------------|
| 2 jts | 114.3 mm PRN nipple L-80 New Vam 96.85 mm profile, 94.62 mm no-go | 0.51 m | | 2925.46 |
| | 114.3 mm 18.75 kg/m L-80 New Vam tubing joints | 17.89 m | | |
| | 114.3 mm 18.75 kg/m L-80 New Vam perforated pup joint | 3.1 m | | 2904.46 |
| 1 jt | 114.3 mm PR Nipple L-80 New Vam 96.85 mm profile | 0.38 m | | 2904.08 |
| | 114.3 mm 18.75 kg/m L-80 New Vam tubing joint | 8.89 m | | |
| | 114.3 mm 18.75 kg/m L-80 New Vam pup joint | 1.02 m | | |
| 1 jt | 117.8 mm Weatherford Ultra Pack Double Sealbore Permanent Packer L-80 | 1.57 m | | 2892.60 |
| | Weatherford Locator Seal Assembly c/w ATR seal stack 97.4 mm ID | 0.4 m | | 2892.40 |
| | 114.3 mm 18.75 kg/m L-80 New Vam tubing joint | 7.4 m | | |
| 1 jt | 114.3 mm 18.75 kg/m L-80 New Vam pup joint | 1.36 m | | |
| | 114.3 mm PR Nipple Incoloy 925 New Vam 96.85 mm profile | 0.38 m | | 2883.3 |
| | 114.3 mm 18.75 kg/m Incoloy 925 New Vam pup joint | 3.23 m | | |
| 1 jt | 117.8 mm Weatherford Ultra Pack Double Sealbore Permanent Packer Incoloy | 1.56 m | | 2878.85 |
| | Weatherford Incoloy Latch Seal Assembly c/w ATR seal stack 97.4 mm ID | 0.4 m | | 2878.42 |
| | 114.3 mm 18.75 kg/m Incoloy 925 New Vam pup joint | 3.13 m | | |
| 169 jts | Crossover 114.3 mm New Vam pin x 127 mm Hydril 513 box L-80 | 0.31 m | | 2875.01 |
| | 127 mm 22.32 kg/m L-80 Hydril 513 pup joint | 2.96 m | | |
| | 127 mm 22.32 kg/m L-80 Hydril 513 tubing (2140.63 m) | | | |
| 56 jts | Crossover joint 127 mm L-80 Hydril 22.32 kg/m pin x 26.79 kg/m box | 4.94 m | | 726.48 |
| | 127 mm 26.79 kg/m L-80 Hydril 513 tubing (715.99 m) | | | |
| | 127 mm 26.79 kg/m L-80 Hydril 513 tubing pup joint | 1.08 m | | |
| 56 jts | 127 mm 26.79 kg/m L-80 Hydril 513 pin x pin sub under dognut | 0.99 m | | |
| | ABB Vetco Incoloy tubing hanger | 0.22 m | | |

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : March 7, 2004

Day Number : 6

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------------------------------|--------------|------------|------|-------|---|------------|-----------------|-------------------|
| | Driller | | 8:00 | 19:30 | Spot and rig in test equipment | | | |
| | Derrick | | | | | | | |
| | Floor | | | | | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| Diesel fuel usage (m3) | | | | | | | | |
| stationary eqt on location | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| today | 0.75 | Tangible | | | | | | |
| cumulative | 325.75 | Intangible | | | | | | |
| | | Total | | | \$66,200 | \$985,590 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Lonkar Testing | | Andy Saboe | |
| today | 160 | | | | | | | |
| cumulative | 6,096 | | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Rig in production testing equipment

Lonkar Testing and Formula Trucking crews and equipment on location. Hold site orientation and safety meeting. Ancillary wellsite equipment (shacks, water tank, matting etc. along with United Safety equipment left on location from well drilling/comp. operations).

Spot and rig up the following Lonkar inline testing equipment as per CCR/NEB sour well testing requirements:

- 14 mpa inline test unit with discharge to K-29 plant inlet
- 16 m3 vertical press tank
- 70 m3 pressurized storage bullet

All vent and pop lines routed to K-29 facility flare system. See attached testing equipment schematic.
Rig in 35 mpa 103.1 mm flanged flowline from wellhead ESD to Lonkar choke manifold.

ABB Vetco crew on location to install 127 mm x 35 mpa R-44 sour service wellhead and pressure test same. Retrieve BPV from tubing hanger.

Shut in K-29 well and install a flanged flow tee c/w checkvalve onto the top of the K-29 wellhead and rig in a 69 mpa x 101 mm flanged flowline from flow tee to discharge of the in line test unit. Open K-29 well to flow once tie in was complete.

SDFN

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : **60deg 28'/123 deg 35'**

Date : **March 8, 2004**

Day Number : **7**

| | | | | | | | | |
|-------------------------------------|--------------|------------------------|------|-------|---|-------------|-----------------|-------------------|
| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
| | Driller | | 7:30 | 19:30 | Continue to rig up Lonkar production testing equip, CT equip on loc at 14:30 hrs , R/U | | | |
| | Derrick | | | | | | | |
| | Floor | | | | | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | | | | | | | | |
| Diesel fuel usage (m3) | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| stationary eqt on location | | | | | | | | |
| today | 0.75 | Tangible Intangible | | | | | | |
| cumulative | 326.50 | | | | | | | |
| | | Total | | | \$48,650 | \$1,034,240 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Lonkar Testing | | Andy Saboe | |
| today | 163 | | | | | | | |
| cumulative | 6,259 | | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Continue to rig in production testing equipment

Continue to rig on Lonkar production testing equipment as per March 7th, 2004 report.

Move on and spot the following Trican coil tubing equipment:

- coil tubing unit
- 50.8 mm coil tubing reel
- fluid pumper
- nitrogen pumper
- nitrogen bulker
- 103 mm Class III CT BOPE
- picker

50.8 mm coil tubing: 3722 m, HS-80, wall thickness 4.45 mm, 80 % yield = 28,560 daN, est. CT vol = 5.22 m3

Nipple up the following 103.1 mm 35 mpa CT BOP stack:

- wellhead flow cross with kill port
- 5 K annular preventer
- flow tee with gate valve and ESD (flow port)
- quad CT BOP stack (blind rams, shear rams, slip rams, pipe rams)
- 6 m flanged riser pipe

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# **RWWNC-R3004-500 (well completion and test)**

LSD : **60deg 28'/123 deg 35'**

Date : **March 9, 2004**

Day Number : **8**

| | | | | | | | | |
|-------------------------------------|----------------------------|--------|------------|-------|---|-------------|------------------------|-------------------|
| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
| | Driller | | 8:00 | 13:30 | Cont to R/U CT and test equip Purge and press test equip Dress CT and install Baker BHA SDFN | | | |
| | Derrick | | 13:30 | 17:00 | | | | |
| | Floor | | 17:00 | 18:30 | | | | |
| | Floor | | 18:30 | | | | | |
| | Accum Press. | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | | | | |
| | Diesel fuel usage (m3) | | | | | | | |
| | stationary eqt on location | | | | | | | |
| today | | 1.25 | Tangible | | Today | Cumulative | Total Approved | Scope Change Cost |
| cumulative | | 327.75 | Intangible | | | | | |
| | | | Total | | \$49,475 | \$1,083,715 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | |
| today | | 211 | | | | | | |
| cumulative | | 6,460 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Continue to rig in coil tubing equipment

Continue to rig up coil tubing and test equipment.
Steam wellhead and remove BPV from tubing hanger.

Function test and pressure test BOP components, coil tubing, stuffing box, pumpelines, ESD, Lonkar flowline to 1.4 and 30 mpa with nitrogen. Fix leaks and retest as required. Purge test equipment with nitrogen to vent line. Pressure test inline test unit to 14 mpa, vertical pressure tank to 1.4 mpa and the storage vessels to 344 kpa with nitrogen.

Move on 60 m3 water and heat to 85 deg C with hotoiler.

Pick up injector head and dress 50.8 mm coil tubing to make up Baker's coil tubing assembly. Pull test coil connector to 15,000 daN overpull.

Set down injector and SDFN.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : **60deg 28'/123 deg 35'**

Date : **March 10, 2004**

Day Number : **9**

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------------------------------|-----------------------------|--------|------------------------|-------|---|-------------|------------------------|-------------------|
| | Driller | | 7:30 | 10:45 | M/U CT BHA, nipple up injector and p test. | | | |
| | Derrick | | 10:45 | 15:45 | RIH with CT to retrieve prong, latch, jar and POOH | | | |
| | Floor | | 15:45 | 19:45 | On surface with coil tubing, recovered prong, RIH with CT to retrieve lock mandrel, latch, jar and POOH | | | |
| | Floor | | 19:45 | 22:00 | On surface with coil tubing, recover lock mandrel, purge CT and secure well for shut down | | | |
| | | | 22:00 | | SDFN | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | Diesel fuel usage (m3) | | | | | | | |
| | stationary eqpt on location | | | | | | | |
| | today | 0.75 | Tangible Intangible | | Today | Cumulative | Total Approved | Scope Change Cost |
| | cumulative | 328.50 | | | | | | |
| | | | | Total | \$101,875 | \$1,185,580 | \$2,087,900 | |
| | Contractor Hours (on site) | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | |
| | today | 297 | | | | | | |
| | cumulative | 6,757 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: RIH coil tubing and retrieve prong and plug

Make up the following 73 mm OD Baker Oil Tools coil tubing fishing BHA:

- external coil tubing connector
- dual flapper check valves
- ball operated disconnect
- bladed stabilizer (85.7 mm OD)
- hydraulic
- hydraulic release overshot dressed to catch prong neck

Fishing assembly length = 4.87 m

K-29 facility alarm due to ruptured cooler tube. Evacuate location and regroup at safe area until "all clear" was received from K-29 facility. Resume coil tubing operation on 3 K-29.

Nipple up injector, load coil tubing with 25 % hot meth/water and pressure test to 1.4 and 30 mpa.
RIH with fishing assembly on CT while pumping water through BHA at 50 liters/min. Conduct pull tests every 500 m.

Load the coil tubing with 4m3 25% meth/water prior to latching the prong (pump rate/press, 50L/min = 1.5mpa, 200 L/min = 11.5mpa.

At 2890 (~ 14 m above prong) CT weights: up = 12,500 daN, down = 6,800daN. Slow down pump rate to 50 L/min and tag prong at 2989 mKB (up weight), plug landed at 2904.1 mKB. Pulled to17,000 daN straight pull (with out firing jars), 4,500 daN over stg weight. Coil tubing pulled free.

POOH with coil tubing suspecting we ave recovered the prong. Pump water down the CTA at ~ 60 L/min to maintain a positive pressure of 200 kpa to prevent the well from going underbalanced and allowing mud influx into to plug body.
On surface, **recover the prong**.

Make up GS pulling tool onto the fishing string, pressure test lubricator connection to 1.4and 30 mpa. RIH with GS pulling tool, circulate onto the plug top at 50 L/min , CT press= 1.3mpa. Tagged plug at 2989mKB (up weight,) plug landed at 2904.1 mKB. Pressure increased to 1.8 mpa once plug was engaged. Shut down pump and pull coil tubing up to 18,000 daN (5,000 daN over stg wgt). Coil tubing pulled free, POOH with coil tubing. Pump water down the CTA at 150L/min to obtain a CTA press of 200 - 500 kpa. This indicates the plug has been unseated from the nipple.
On surface, **recover the lock mandrel (plug)**.

Purge coil tubing with nitrogen and secure BOPs for over night shutdown.

SDFN

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# **RWWNC-R3004-500 (well completion and test)**

LSD : **60deg 28'/123 deg 35'**

Date : **March 11, 2004**

Day Number : **10**

| DAY CREW | CREW | | FROM | TO | TIME SUMMARY | | | | | | | | | | | |
|-----------------------------------|----------------------|-----------|------------|---|---|------------------------|-------------------|--|----------------------|-----------|--------------------|-----------|------------------------|---------|----------------------|---------|
| | Driller | | 8:00 | 9:00 | Open well attempt to flow | | | | | | | | | | | |
| | Derrick | | 9:00 | 12:45 | R/U CT injector, p test | | | | | | | | | | | |
| | Floor | | 12:45 | 16:15 | RIH and gas lift well | | | | | | | | | | | |
| | Floor | | 16:15 | 17:15 | POOH with CT, shut down nitrogen, allow well to continue to flow | | | | | | | | | | | |
| | | | 17:15 | 18:00 | Shut in well, R/D CT equip | | | | | | | | | | | |
| | | | 18:00 | 0:00 | Record SI press | | | | | | | | | | | |
| | Accum Press. | | | | <table><tr><td>Daily gas production</td><td>8.91 e3m3</td></tr><tr><td>Cum gas production</td><td>8.91 e3m3</td></tr><tr><td>Daily water production</td><td>71.3 m3</td></tr><tr><td>Cum water production</td><td>71.3 m3</td></tr></table> | | | | Daily gas production | 8.91 e3m3 | Cum gas production | 8.91 e3m3 | Daily water production | 71.3 m3 | Cum water production | 71.3 m3 |
| | Daily gas production | 8.91 e3m3 | | | | | | | | | | | | | | |
| | Cum gas production | 8.91 e3m3 | | | | | | | | | | | | | | |
| Daily water production | 71.3 m3 | | | | | | | | | | | | | | | |
| Cum water production | 71.3 m3 | | | | | | | | | | | | | | | |
| Air Shut Off | | | | | | | | | | | | | | | | |
| Stab Valve | | | | | | | | | | | | | | | | |
| H2S | | | | | | | | | | | | | | | | |
| Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | | | | | | | | | | |
| <u>Diesel fuel usage (m3)</u> | | | | | | | | | | | | | | | | |
| stationary eqt on location | | | | Today | Cumulative | Total Approved | Scope Change Cost | | | | | | | | | |
| today | 0.75 | Tangible | | | | | | | | | | | | | | |
| cumulative | 329.25 | | Intangible | | | | | | | | | | | | | |
| | | Total | | \$85,875 | \$1,271,455 | \$2,087,900 | | | | | | | | | | |
| <u>Contractor Hours (on site)</u> | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | | | | | | | | | | |
| today | 261 | | | | | | | | | | | | | | | |
| cumulative | 7,018 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | | | | | | | | | | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Well,dead, gas lift well with coil tubing and nitrogen

Open well, SITP = mild vacuum.

Rig up coil tubing injector with 2" jetting nozzle, pressure test BOP stack to 30 mpa through the coil tubing, fix leaks and retest as required. RIH with coil tubing while jetting nitrogen at 25 scm/min with fluid and nitrogen returns routed up flare stack through the test unit.

| Time | Wellhead kpa | Csg kpa | Gas Rate e3m3/d <u>includes N2</u> | Cum Fluid m3 | Comments |
|-------|-----------------|------------|--|-----------------|--|
| 12:45 | | | | | RIH with CT, pumping N2 at 25 scm/min |
| 13:00 | 9290 | vac | | 0.48 | Wellhead press is CT N2 test press equalizing from CT into CTA |
| 13:30 | 7558 | vac | | 1.26 | Increase N2 rate to 30 scm/min |
| 14:00 | 1720 | vac | | 2.29 | Increase N2 rate to 40 scm/min |
| 14:30 | 1720 | vac | | 4.90 | Sit with coil tubing at 1500 m, salinity 42,000 ppm , pH 7, H2S 500 ppm |
| 15:00 | 1700 | vac | 39.28 | 37.44 | Slow down N2 to 15 scm/min |
| 15:30 | 3200 | vac | 58.58 | 56.41 | Salinity 61,000 ppm, ph7 |
| 16:00 | 3000 | vac | 54.60 | 58.41 | |
| 16:17 | | | | | POOH with coil tubing |
| 16:30 | 3000 | vac | 73.26 | 63.20 | Salinity 90,000 ppm, ph7 |
| 17:00 | 2800 | vac | 58.60 | 67.00 | |
| 17:15 | 1600 | vac | 57.98 | 71.30 | |
| 17:15 | | | | | CT at surface, shut in well, R/D CT from wellhead |
| 18:00 | 7320 | vac | | | Open well and record build ups |
| 18:30 | 7370 | vac | | | |
| 19:00 | 7400 | vac | | | |
| 20:00 | 7400 | vac | | | |
| 22:00 | 7400 | vac | | | |
| 24:00 | 7400 | vac | | | |

Annulus pressure was TSTM during yesterday's CT operations and had build to ~ 500 kpa during circulation with coil tubing, thermal effect. The 500 kpa was bled off. The annulus today was on vacuum at the start of today's operations and remained on vacuum despite of the flowing wellhead temp of 68 deg C..

Tubing volume to tailpipe end = 28.2 m3
Annulus volume to packer = 21.1 m3
Openhole volume to TD = 14.1 m3

Fluid volume pumped during coil operations to pull plug = 17.5 m3

Load to recover: 80.9 m3 if the packer is leaking / 59.8 m3 is the packer is competent

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

LSD : **60deg 28'/123 deg 35'**

WBSE# **RWWNC-R3004-500 (well completion and test)**

Date : **March 12, 2004**

Day Number : **11**

| DAY CREW | CREW | | FROM | TO | TIME SUMMARY | | | |
|-----------------------------------|--------------|------------------------|-----------------------|------------|---|-------------------|--|--|
| | Driller | | 8:00 | 11:00 | R/U CT injector and press test, wait on tank trucks to empty test equip | | | |
| | Derrick | | 11:00 | 16:10 | RIH CT and gas lift/flow well | | | |
| | Floor | | 16:10 | 18:00 | POOH with CT, R/D CT | | | |
| | Floor | | 18:00 | 0:00 | Shut in well and record build ups | | | |
| | Accum Press. | | | | <div><div>Daily gas production13.07 e3m3</div><div>Cum gas production21.98 e3m3</div><div>Daily water production76.1 m3</div><div>Cum water production138.6 m3</div></div> see notes below | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| <u>Diesel fuel usage (m3)</u> | | | | | | | | |
| stationary eqt on location | | | | | | | | |
| today | 1.25 | Tangible Intangible | Today | Cumulative | Total Approved | Scope Change Cost | | |
| cumulative | 330.50 | | | | | | | |
| | | | Total | \$82,055 | \$1,353,510 | \$2,087,900 | | |
| <u>Contractor Hours (on site)</u> | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | | | |
| today | 249 | | | | | | | |
| cumulative | 7,267 | | RIG OR CONTRACTOR | | CONTRACTOR REP. | | | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Flow well for further evaluation, gas lift with coil as required

Continue to monitor build ups through the night.
Rig up coil tubing injector with 2" jetting nozzle, pressure test BOP stack to 30 mpa through the coil tubing, fix leaks and retest as required.

Wait on tank trucks to haul out produced fluid from test equipment. Open well to flow and gas lift as required.

Note: Total fluid recovered yesterday was recorded wrong at 71.3 m3, the actual production for yesterday based on tank truck tickets is 62.5 m3, the calibration on the pressurized storage vessel was wrong.

| Time | Wellhead kpa | Csg kpa | Gas Rate e3m3/d <u>includes N2</u> | Cum Fluid m3 | Comments |
|-------|-----------------|------------|--|-----------------|---|
| | | vac | | 62.50 | yesterday's cum water production, corrected volume switched from dead wgt to gauge due to dead wgt troubles |
| 1:00 | 7070 | vac | | | |
| 4:00 | 7000 | vac | | | |
| 6:00 | 7100 | vac | | | |
| 8:30 | 6900 | vac | | | Rig up CT |
| 11:00 | | vac | | | RIH with CT |
| 11:30 | 1200 | vac | | | Open well to flow, start pumping N2 at 20 scm/min |
| 11:50 | | vac | | | Increase N2 to 30 scm/min, stop CT at 1500 m for gas lifting |
| 12:05 | | vac | | | Liquid to surface |
| 12:15 | 2750 | vac | | 65.61 | Increase N2 to 40 scm/min |
| 12:30 | 1900 | vac | 42.55 | 73.20 | |
| 12:45 | 1180 | vac | | 76.37 | Salinity 100,000 ppm, pH 7, H2S 6,000 ppm, BS 1% |
| 13:00 | 840 | vac | 4.49 | 77.54 | |
| 13:15 | 2200 | vac | 63.86 | 83.63 | Salinity 102,000 ppm, pH 7, H2S 0, BS 1.5% |
| 14:00 | 2600 | vac | 64.35 | 94.99 | Salinity 130,000 ppm, pH 7, H2S 1 %, BS 1.2 % |
| 15:00 | 2600 | vac | 71.06 | 111.07 | Salinity 118,000 ppm, pH 7, H2S 0.5%, BS 2.8 % |
| 16:00 | 2700 | vac | 75.75 | 118.54 | Salinity 120,000 ppm,pH 7, H2S 0.8%, BS 2.8 % |
| 16:10 | | | | | POOH with coil tubing, shut down N2 |
| 17:00 | 1200 | | 51.70 | 138.63 | Salinity 125,000 ppm, pH 7, BS 2 % |
| 17:00 | | | | | Shut in well and rig out coil tubing |
| | | | | | Record build up pressures |
| 18:00 | 5000 | | | | |
| 19:00 | 5700 | | | | |
| 20:00 | 6100 | | | | |
| 21:00 | 5965 | | | | |
| 22:00 | 6000 | | | | |
| 23:00 | 6075 | | | | |
| 0:00 | 6086 | | | | |

Order up Baker Thru Tubing inflatable bridge plug equipment.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# **RWWNC-R3004-500 (well completion and test)**

LSD : **60deg 28'/123 deg 35'**

Date : **March 13, 2004**

Day Number : **12**

| | | | | | | | | |
|-------------------------------------|--------------|------------------------|------|------|---|-------------|------------------------|-------------------|
| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
| | Driller | | 0:00 | 0:00 | Record build ups and wait on inflate bridge plugs | | | |
| | Derrick | | | | | | | |
| | Floor | | | | | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| Diesel fuel usage (m3) | | | | | | | | |
| stationary eqt on location | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| today | 0.25 | Tangible Intangible | | | | | | |
| cumulative | 330.75 | | | | | | | |
| | | Total | | | \$45,475 | \$1,398,985 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | |
| today | 210 | | | | | | | |
| cumulative | 7,477 | | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

Daily gas production0 e3m3

Cum gas production21.98 e3m3

Daily water production0 m3

Cum water production138.6 m3

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Wait on arrival of thru tubing bridge plug assembly

Continue to monitor build ups through the night. Shut in well and bleed off wellgas and purge BOPE with nitrogen. Wait on arrival of Baker inflatable equipment from Red Deer.

Haul out sour produced fluid to FSJ for disposal.

| Time | Wellhead kpa | Csg kpa | Gas Rate e3m3/d <u>includes N2</u> | Cum Fluid m3 | Comments |
|------|-----------------|------------|--|-----------------|---|
| | | vac | | 138.63 | total fluid production to date |
| 0:30 | 6099 | vac | | | Well shut in, record build ups |
| 1:00 | 6113 | vac | | | |
| 2:00 | 6163 | vac | | | |
| 3:00 | 6193 | vac | | | |
| 4:00 | 6221 | vac | | | |
| 5:00 | 6251 | vac | | | |
| 6:00 | 6275 | vac | | | |
| 7:00 | 6297 | vac | | | |
| 8:00 | 6333 | vac | | | |
| 9:00 | 6338 | vac | | | Shut in well and purge CT BOP stack with N2 |

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : March 14, 2004

Day Number : 13

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | | | | | | | | | | | | | |
|-------------------------------------|------------------------|----------|------------|---|--|------------------------|-------------------|--|----------------------|-------|------|--------------------|-------|------|------------------------|-------|----|----------------------|--------|----|
| | Driller | | 7:00 | 11:00 | Make up IBP assembly onto CT, N/U injector and press test | | | | | | | | | | | | | | | |
| | Derrick | | 11:00 | 16:00 | RIH with IBP on CT | | | | | | | | | | | | | | | |
| | Floor | | 16:00 | 18:30 | Set IBP | | | | | | | | | | | | | | | |
| | Floor | | 18:30 | 23:30 | Open well to flow, gas lift well | | | | | | | | | | | | | | | |
| | | | 23:30 | 0:00 | POOH with coil tubing | | | | | | | | | | | | | | | |
| | Accum Press. | | | | <table><tr><td>Daily gas production</td><td>27.63</td><td>e3m3</td></tr><tr><td>Cum gas production</td><td>49.61</td><td>e3m3</td></tr><tr><td>Daily water production</td><td>18.94</td><td>m3</td></tr><tr><td>Cum water production</td><td>157.57</td><td>m3</td></tr></table> | | | | Daily gas production | 27.63 | e3m3 | Cum gas production | 49.61 | e3m3 | Daily water production | 18.94 | m3 | Cum water production | 157.57 | m3 |
| | Daily gas production | 27.63 | e3m3 | | | | | | | | | | | | | | | | | |
| | Cum gas production | 49.61 | e3m3 | | | | | | | | | | | | | | | | | |
| | Daily water production | 18.94 | m3 | | | | | | | | | | | | | | | | | |
| Cum water production | 157.57 | m3 | | | | | | | | | | | | | | | | | | |
| Air Shut Off | | | | | | | | | | | | | | | | | | | | |
| Stab Valve | | | | | | | | | | | | | | | | | | | | |
| H2S | | | | | | | | | | | | | | | | | | | | |
| Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | | | | | | | | | | | | | | |
| <u>Diesel fuel usage (m3)</u> | | | | | | | | | | | | | | | | | | | | |
| stationary eqpt on location | | | | Today | Cumulative | Total Approved | Scope Change Cost | | | | | | | | | | | | | |
| today | 0.50 | Tangible | | | | | | | | | | | | | | | | | | |
| cumulative | 331.25 | | Intangible | | | | | | | | | | | | | | | | | |
| | | Total | | \$85,375 | \$1,484,360 | \$2,087,900 | | | | | | | | | | | | | | |
| <u>Contractor Hours (on site)</u> | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | | | | | | | | | | | | | | |
| today | 247 | | | | | | | | | | | | | | | | | | | |
| cumulative | 7,724 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | | | | | | | | | | | | | | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: RIH and set IBP in openhole to blank off fractures at toe of well and evaluate remaining openhole

Obtain a shut in wellhead pressure, 6.5 mpa

Make up Baker's Thru Tubing equipment as follows:

- coil tubing connector (pull tested to 15, 000 daN)
- flapper checkvalves
- ball operated circulation sub
- ball operated disconnect
- IBP setting tool
- 85.7 mm Inflatable Retrievable Bridge Plug

Back load coil tubing with 60 liters water to inflate IBP with. IBP set with 3 mpa applied pressure.

Nipple up injector/lubricator assembly onto BOPs and pressure test with nitrogen as follows:

- CTA to 10 mpa
- CT to 6.5 mpa
- CTA to 18 mpa

RIH with IBP on coil tubing, conduct pull tests as required. At 1500 m, CT 4.5, CTA 7.5 mpa. Increase coil tubing pressure to 7.5 with nitrogen to minimise coil tubing collapse concerns. Pull test at tailpipe end 2926 mKB, up 10,800 daN, down 5,900 daN.

Run through openhole with out seeing any abnormal weight changes (OH appears to be smooth and with out any bridges). Run the coil tubing BHA to 3630 mKB and pull back to position center element at 3622 mKB, IBP top is at 3620.4 mKB. Paint coil tubing for future depth reference.

CT press 8.1 mpa, CTA press 7.4. Pressure up the coil tubing to 20 mpa with nitrogen to set IBP, set down 1,000 daN down to confirm anchoring of IBP to openhole wall. Wait 20 mins to allow IBP element to contour to openhole walls. Continue to pressure up coil tubing to 26.5 mpa with nitrogen to fully set IBP and release running tool from IBP(release is automatic upon reaching shear value). Release observed by a drop in the coil tubing pressure, wait 5 mins to ensure release is complete. Pull up cleanly from the IBP top.

Pull the coil tubing to 2874 mKB (127 mm tbg), no over pull noticed while pulling coil tubing BHA thru tailpipe. Open well to flow to flare stack through the test unit. Pump ball down coil tubing to open circ sub to allow unrestricted pumping of nitrogen thru BHA. Pump nitrogen down coil tubing at 25 - 40 scm/min as required to assist well. Pull coil tubing to and sit at 1500 m while evaluating well inflow.

Estimated fluid level in well = 920 mMD, volume of water in tubing = 16.5 m3, volume of water in openhole 8.2 m3

Recovered 18.94 m3 fluid with minor amounts of burnable gas. Fluid rates dropped off significantly to TSTM after recovering 18.94 m3 with gas returns equalizing nitrogen rate. Vary nitrogen rates to confirm gas rate correlations. Vary nitrogen rates to obtain more efficient gas lifting.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# **RWWNC-R3004-500** (well completion and test)

LSD : **60deg 28'/123 deg 35'**

Date : **March 14, 2004**

Day Number : **13**

| DAY CREW | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------|--------------|--|------------|----|-------------------|------------|-----------------|-------------------|
| | Driller | | | | | | | |
| | Derrick | | | | | | | |
| | Floor | | | | | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | | | | |
| | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| | today | | Tangible | | | | | |
| | cumulative | | Intangible | | | | | |
| | | | Total | | | | | |
| | | | | | | | | |
| | today | | | | | | | |
| | cumulative | | | | | | | |
| | | | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: RIH and set IBP in openhole to blank off fractures at toe of well and evaluate remaining openhole

Continued from page # 1

Decided to run down to 2500m (from current CT depth of 1500 m) and gaslift well deep to confirm water production has indeed ceased. Unable to go downwards with coil tubing.

Coil tubing is free to move up, actually pulling up ~ 3,000 daN lighter than on previous trips. Pull up 100 m and attempt to go downwards, immediate set down.

Decided to POOH to determine the condition of the IBP setting assembly. Shut in well at choke and shut down nitrogen. POOH with coil tubing.

| Time | Wellhead kpa | Csg kpa | Gas Rate e3m3/d <u>includes N2</u> | Cum Fluid m3 <u>since setting IBP</u> | Comments |
|-------|-----------------|------------|--|---|--|
| | 7470 | | | | IBP set at 3622 mKB, pull up with CT to 2926 mKB (tailpipe) |
| 18:30 | | | | | Open well to flow and gaslift well with nitrogen |
| 19:00 | 5440 | | | | Pump nitrogen at 30 scm/min, pull coil tubing to 2000m |
| 19:30 | 336 | TSTM | 3.15 | | |
| 19:40 | | | | | Liquid to surface |
| 20:00 | 3870 | TSTM | 11.19 | 2.06 | |
| 20:30 | 1684 | TSTM | 56.41 | 8.41 | Salinity 130,000 ppm, pH 7 |
| 20:48 | | | | | Increase nitrogen to 40 scm/min |
| 21:00 | 1930 | TSTM | 60.67 | 12.01 | Salinity 136,000 ppm, pH 7 |
| 21:30 | 860 | TSTM | 29.17 | 14.64 | |
| 22:00 | 1445 | TSTM | 33.93 | 18.30 | Salinity 120,000 ppm, pH 7, BS 2-3 % |
| 22:30 | 840 | TSTM | 56.12 | 18.44 | |
| 22:37 | | | | | Slow nitrogen rate to 15 scm/min |
| 22:45 | 449 | vac | 29.10 | 18.56 | H2S 3,000 ppm |
| 23:00 | 144 | vac | 14.57 | 18.65 | |
| 23:05 | | | | | Increase nitrogen to 40 scm/min |
| 23:15 | 280 | vac | 29.31 | 18.65 | Unable to go down with coil tubing |
| 23:30 | 647 | vac | 50.91 | 18.94 | |
| 23:36 | | | | | Shut down nitrogen and shut in well at choke |
| 23:45 | 2845 | vac | | | POOH with CT |
| 0:00 | 3006 | vac | | | POOH with CT |

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : March 15, 2004

Day Number : 14

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | | | | | | | | | | | | | |
|-------------------------------------|----------------------|------------|-------|---|--|------------------------|-------------------|--|----------------------|---|------|--------------------|-------|------|------------------------|---|----|----------------------|--------|----|
| | Driller | | 0:00 | 1:30 | Cont to POOH and inspect setting assembly | | | | | | | | | | | | | | | |
| | Derrick | | 1:30 | 11:30 | RIH with retrieving tool on CT, tag out numerous places, POOH | | | | | | | | | | | | | | | |
| | Floor | | 11:30 | 13:00 | At surface, inspect retrieving assembly | | | | | | | | | | | | | | | |
| | Floor | | 13:00 | 19:00 | RIH with gauge ring on CT travel thru openhole 2 times | | | | | | | | | | | | | | | |
| | | | 19:00 | 23:00 | POOH | | | | | | | | | | | | | | | |
| | | | 23:00 | 0:00 | Make up Baker ICR | | | | | | | | | | | | | | | |
| | Accum Press. | | | | <table><tr><td>Daily gas production</td><td>0</td><td>e3m3</td></tr><tr><td>Cum gas production</td><td>49.61</td><td>e3m3</td></tr><tr><td>Daily water production</td><td>0</td><td>m3</td></tr><tr><td>Cum water production</td><td>157.57</td><td>m3</td></tr></table> | | | | Daily gas production | 0 | e3m3 | Cum gas production | 49.61 | e3m3 | Daily water production | 0 | m3 | Cum water production | 157.57 | m3 |
| | Daily gas production | 0 | e3m3 | | | | | | | | | | | | | | | | | |
| | Cum gas production | 49.61 | e3m3 | | | | | | | | | | | | | | | | | |
| Daily water production | 0 | m3 | | | | | | | | | | | | | | | | | | |
| Cum water production | 157.57 | m3 | | | | | | | | | | | | | | | | | | |
| Air Shut Off | | | | | | | | | | | | | | | | | | | | |
| Stab Valve | | | | | | | | | | | | | | | | | | | | |
| H2S | | | | | | | | | | | | | | | | | | | | |
| Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | | | | | | | | | | | | | | |
| <u>Diesel fuel usage (m3)</u> | | | | | | | | | | | | | | | | | | | | |
| stationary eqpt on location | | | | Today | Cumulative | Total Approved | Scope Change Cost | | | | | | | | | | | | | |
| today | 0.75 | Tangible | | | | | | | | | | | | | | | | | | |
| cumulative | 332.00 | Intangible | | | | | | | | | | | | | | | | | | |
| | | Total | | \$118,937 | \$1,567,297 | \$2,087,900 | | | | | | | | | | | | | | |
| <u>Contractor Hours (on site)</u> | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | | | | | | | | | | | | | | |
| today | 226 | | | | | | | | | | | | | | | | | | | |
| cumulative | 7,950 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | | | | | | | | | | | | | | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Make coil tubing runs to determine id IBP is still set at desired depth, Make gauge ring run on coil tubing

POOH with IBP setting tool after gas lifting well. At 1100 m attempted to go downwards, unable to. Continue POOH.

At surface with coil tubing. Inspect the IBP setting BHA, the tools indicate that the setting and releasing of the IBP was executed as designed. No indications of any malfunction of the setting tools.

Make up the IBP retrieving tool on the following coil tubing BHA:

- coil tubing connector (pull tested to 15, 000 daN)
- flapper checkvalves
- ball operated circulation sub
- ball operated disconnect
- hydraulic centralizer
- IBP retrieving tool (85.7 mm OD guide)

Pressure test injector head connection to 18 mpa with nitrogen.
RIH with retrieving tool on coil tubing, CT 6.5 mpa, CTA 6.5 mpa. Tag out at 1825 mKB, work coil tubing deeper and tag out again several times (1825, 1890, 1970) , average RIH weight prior to tag = 3400 daN. Work coil tubing up/down in an attempt to get past obstructions. Start pumping nitrogen through coil tubing at 2020 m and work through.

Work tools past obstruction at 2020 mKB and carry on down to 2233 mKB work through and carry on down to 2540 mKB. Unable to get past 2540 mKB. Pull back up to 2000 m with out any overpull indicating the fish has been latched. Run freely back down to 2600 m.

Even though the coil tubing was moving freely down at 2600 m, decided to POOH and check if the fish had been latched on the many previous set downs. POOH with coil tubing.
At surface with coil tubing, **recover IBP with out the outer rubber element** (rubber jacket that is ~1.5 m long and ~ 85 mm OD). No obvious signs of IBP failure, unable to see breech of element. The bottom shear ring indicates that the plug had been inflated and the deflation valve has not been shifted, indicating the element had been breached.

The differential rating of this plug in a 156 mm hole is 42 mpa at 100 % and IBP is rated for 150 deg C. The differential rating of the IBP will decrease dramatically as the openhole size increases.

Pressure test injector head connection to 14 mpa with nitrogen and RIH with gauge ring assembly. CT 5.8 mpa, CTA 7.2 mpa.

RIH with a 85.2 mm retrieving tool on the coil tubing BHA to act as a gauge ring to ensure no rubber or other junk is in the path of upcoming coil tubing operations. Run CT to 3622 mKB (IBP setting depth) , pull back to the packer and RIH this time to 3640 mKB (potential setting depth for retainer). **Nothing tagged in direction.**

POOH with coil tubing.

At surface with coil tubing, make up Baker Thru Tubing Inflatable Cement Retainer assembly on to coil tubing BHA. See tomorrows reports for BHA details. Wait until tomorrow am before RIH with ICR (time the setting of the ICR with the arrival of the cement bulkler).

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : March 16, 2004

Day Number : 15

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------------------------------|-----------------------------|--------|------------|-------|---|-------------|------------------------|-------------------|
| | Driller | | 0:00 | 0:30 | Make up ICR onto coil tubing and nipple up injector head | | | |
| | Derrick | | 0:30 | 4:45 | Wait at surface | | | |
| | Floor | | 4:45 | 10:00 | Press test and RIH with CT, safety/ops meeting | | | |
| | Floor | | 10:00 | 11:50 | Circ ball over goose neck, set ICR | | | |
| | | | 11:50 | 12:30 | Start to mix cement, perform feed rate | | | |
| | | | 12:30 | 13:10 | Attempt to pull off retainer | | | |
| | | | 13:55 | 0:00 | Mix and circulate contaminant, work CT while waiting on acid tank truck | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | Diesel fuel usage (m3) | | | | | | | |
| | stationary eqpt on location | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| | today | 0.75 | Tangible | | | | | |
| | cumulative | 332.75 | Intangible | | | | | |
| | | | Total | | \$110,875 | \$1,678,172 | \$2,087,900 | |
| | Contractor Hours (on site) | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | |
| | today | 241 | | | | | | |
| | cumulative | 8,191 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: RIH inflatable cement retainer and cement squeeze well

Make up the IBP retrieving tool on the following coil tubing BHA:

- coil tubing connector (pull tested to 15, 000 daN)
- flapper checkvalves
- ball operated circulation sub
- ball operated disconnect
- spotting valve (sequenced shut)
- Inflatable Cement Retainer (ICR) 85.7 mm OD

Nipple up injector head onto BOPs and wait until 5:00 am before pressure testing and RIH. Attempting to time the setting of the ICR with the arrival of the cement bulker to minimise time the ICR is exposed to downhole conditions.

Load well with fresh water and pressure test injector connection to 21 mpa. Open well and bleed off SITP (7540 kpa) to test unit to zero. RIH with ICR on coil tubing while pumping water thru coil tubing at 75 liters/min, obtained fluid returns at test unit after pumping ~ 4m3 water. Slowed water rate to 50 liters/min, lost returns at test unit. Decided against pumping any more water, stopped pumping and continue to RIH with coil tubing.

Position ICR at 3631 mKB center element, drop inflation ball and circulate over gooseneck with 1 m3 water at 300 L/min. Wait 30 mins for all to fall to seat then pressure up coil tubing to 11 mpa at 200 - 400 L/min to inflate and set the ICR. ICR is now set, set down 4,000 daN compression on ICR to confirm competency (twice). Perform an injection rate at 218 L/min at 3.7 -4.1 mpa thru ICR to the fractures at the toe of the well. Pumped 5.25 m3 water for feedrate, no flow up the CTA during injection test.

Mixed up 6.5 m3 of cement slurry using the following chemical additives:

- 1% TLF-HT
- 1% THR-100
- 0.2 % TWR-2

Obtain samples (mix water, hydrated chems, dry blend, slurry).
Lab tests: Thickening time to non-pumpable state (100 be units) = 15 hrs
Working time limit = 5.5 hrs
24 hrs compressive strength = 12 mpa
FL = 90cc/30 mins

Started mixing cement at 11:50 hrs.

Pump cement down coil tubing at 200 L/min with the CTA open to test unit.
1 m3 slurry away, CT press = 6.8 mpa, CTA = 30 kpa (just the back pressure of test unit giving press)
3 m3 slurry away, CT press = 10 mpa, CTA 51 kpa
Squat down weight on retainer to allow for coil tubing shrinkage (thermal effects and for ballooning effects). Maintain ~ 2,000 daN compression on ICR at all times.

Day Number : 15

Company Representative : BJ Kalsi, satellite ph (403) 699-2810

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : **60deg 28'/123 deg 35'**

Date : **March 17, 2004**

Day Number : **16**

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|------------------------|------------------------|-------|---|---|------------------------|-------------------|--|----------------------|--------|------|--------------------|--------|------|------------------------|-------|----|----------------------|--------|----|------------------|--------|----|-----------------------|--------|----|
| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | | | | | | | | | | | | | | | | | | | |
| | Driller | | 0:00 | 8:00 | Wait on acid tank truck, work stuck CT | | | | | | | | | | | | | | | | | | | | | |
| | Derrick | | 8:20 | 9:45 | Pump acid and work CT | | | | | | | | | | | | | | | | | | | | | |
| | Floor | | 9:45 | 14:00 | Gaslift well | | | | | | | | | | | | | | | | | | | | | |
| | Floor | | 14:00 | 22:15 | Shut in well and wait on tank truck to empty test equip | | | | | | | | | | | | | | | | | | | | | |
| | | | 22:15 | 0:00 | Pump nitrogen down the CTA and commence gas lifting | | | | | | | | | | | | | | | | | | | | | |
| | Accum Press. | | | | <table><tr><td>Daily gas production</td><td>146.32</td><td>e3m3</td></tr><tr><td>Cum gas production</td><td>195.94</td><td>e3m3</td></tr><tr><td>Daily water production</td><td>54.16</td><td>m3</td></tr><tr><td>Cum water production</td><td>226.86</td><td>m3</td></tr><tr><td>Total Load Fluid</td><td>117.00</td><td>m3</td></tr><tr><td>Water Prod. From Well</td><td>109.86</td><td>m3</td></tr></table> | | | | Daily gas production | 146.32 | e3m3 | Cum gas production | 195.94 | e3m3 | Daily water production | 54.16 | m3 | Cum water production | 226.86 | m3 | Total Load Fluid | 117.00 | m3 | Water Prod. From Well | 109.86 | m3 |
| | Daily gas production | 146.32 | e3m3 | | | | | | | | | | | | | | | | | | | | | | | |
| | Cum gas production | 195.94 | e3m3 | | | | | | | | | | | | | | | | | | | | | | | |
| | Daily water production | 54.16 | m3 | | | | | | | | | | | | | | | | | | | | | | | |
| | Cum water production | 226.86 | m3 | | | | | | | | | | | | | | | | | | | | | | | |
| | Total Load Fluid | 117.00 | m3 | | | | | | | | | | | | | | | | | | | | | | | |
| | Water Prod. From Well | 109.86 | m3 | | | | | | | | | | | | | | | | | | | | | | | |
| | Air Shut Off | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Stab Valve | | | | | | | | | | | | | | | | | | | | | | | | | |
| H2S | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | | | | | | | | | | | | | | | | | | | | |
| <u>Diesel fuel usage (m3)</u> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| stationary eqpt on location | | | | | | | | | | | | | | | | | | | | | | | | | | |
| today | 0.75 | Tangible Intangible | | Today | Cumulative | Total Approved | Scope Change Cost | | | | | | | | | | | | | | | | | | | |
| cumulative | 333.50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Total | | \$158,875 | \$1,836,947 | \$2,087,900 | | | | | | | | | | | | | | | | | | | | |
| <u>Contractor Hours (on site)</u> | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | | | | | | | | | | | | | | | | | | | | |
| today | 210 | | | | | | | | | | | | | | | | | | | | | | | | | |
| cumulative | 8,401 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | | | | | | | | | | | | | | | | | | | | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Attempt to free stuck coil tubing by pumping acid/nitrogen, gaslift well to evaluate cement and acid jobs

Wait on acid tank truck and shower unit to arrive on location. Transfer 8.8 m3 of 15% HCL from acid in Chevron stock (K-29 location). Add in the required inhibitors for downhole conditions and rig in shower unit.

Pump 8.8 m3 acid down coil tubing and displace with 5 m3 water at 400 L/min at 17 mpa with the CTA open to the test unit. Place the 8.8 m3 acid in the openhole outside the coil tubing. Work coil tubing from max compression 500daN to max tension 26,000daN for 30 mins with no movement from the stuck coil tubing.

Load fluid to recover from acid job = 47 m3

Gaslift well with nitrogen at 30 - 40 scm/min to evaluate cement job and to aid in possibly releasing the coil tubing. Pumped 2400 scm nitrogen with out obtaining any returns up the CTA. Suspect that it is easier for the nitrogen to enter the formation that it is for it to lift the annular column of fluid. Injection pressure down the CT stabilized out at 19.5 mpa at 40 scm/min.

Stop pumping nitrogen down the CT and start pumping down the CTA to squeeze the water into the formation. Pump 3000 scm/min down the CTA. Pressure increased from TSTM to 14.4 mpa at stage end (pump off).

Open CTA to test equipment, commence pumping nitrogen down the CT at 25-40 scm/min.

Shut in well due to shortage of space at test unit. Recovered 40.39 m3 fluid from gas lifting till shut down . Load water to recover from the cement/acid job ~ 47 m3. The scheduled tank truck that was to empty the test unit in the a.m. was delayed on another job. ETA for a replacement tank truck is 5 hours.

Tank truck on location, empty out water from test equipment.

Pump 1000 scm nitrogen down the CTA to bullhead water into the formation and reduce CTA hydrostatic head. CTA press increased from 8.4 mpa to 14 mpa.

Commence gas lifting well down coil tubing with nitrogen at 25 - 40 scm/min.

Recovered 13.6 m3 water after resumption of gas lifting.

Total daily water production 40.39 m3 + 13.60 m3 = 54.16 m3, (load from cement/acid job = 47 m3)

WBSE# RWWNC-R3004-500 (well completion and test)

Day Number : 16

JOB OBJECTIVE: Initial well completion and production test.

Initial well completion and production test.

Attempt to free stuck coil tubing by pumping acid/nitrogen, gaslift well to evaluate cement and acid jobs

| Time | Wellhead kpa | Csg kpa | Gas Rate e3m3/d <u>includes N2</u> | Cum Fluid m3 | Comments |
|-------|-----------------|------------|--|-----------------|--|
| 9:45 | 22 | vac | | | Commence pumping nitrogen down CT, CTA open to test equip |
| 10:51 | 27 | vac | | | Pumped 2400 scm nitrogen with out obtaining returns Pump 3000 scm nitrogen down the CTA to bullhead water |
| 11:40 | 14880 | | | | Start pumping down CT and open CTA to test unit |
| 12:04 | | | | | Fluid to surface |
| 12:05 | 1870 | vac | | 172.87 | Cum prod to date includes circ vol + produced |
| 12:15 | 4860 | vac | | 177.74 | Salinity 88,000 ppm, pH 7 |
| 12:30 | 6600 | vac | | 184.48 | Salinity 90,000 ppm, pH 7 |
| 12:45 | 4975 | vac | | 190.65 | |
| 13:00 | 4650 | vac | 115.3 | 197.52 | Salinity 92,000 ppm, pH 7, no burnable gas |
| 13:15 | 3810 | vac | 100.4 | 206.41 | Salinity 98,000 ppm, pH 7 |
| 13:30 | 3540 | vac | 120.4 | | |
| 13:45 | 3380 | vac | 106.4 | 210.23 | Salinity 108,000 pH 7 |
| 14:00 | 3270 | vac | 105.2 | 213.26 | Salinity 110,000 pH 7 |
| 14:00 | | | | | Shut in well and shut down nitrogen, test unit full |
| 14:30 | 8800 | vac | | | CTA press is higher than previous shut in, CT press flowing into CTA |
| 15:00 | 9280 | vac | | | |
| 16:00 | 9235 | vac | | | |
| 17:00 | 9200 | vac | | | |
| 18:00 | 8160 | vac | | | Opened well to build press in test unit, transfer fluid in press tank |
| 19:00 | 8175 | vac | | | |
| 19:30 | | | | | Transfer out fluid from test equipment |
| 20:00 | 8225 | vac | | | |
| 21:00 | 8350 | vac | | | |
| 22:00 | 8400 | vac | | | |
| 22:30 | | | | | Pump 1000 scm nitrogen down the CTA |
| 22:45 | 12450 | | | | Open well to flow |
| 23:00 | 6300 | vac | | | Commence nitrogen injection down CT at 40 scm/min |
| 23:18 | 10 | vac | | | Fluid to surface |
| 23:30 | 2800 | vac | | 215.31 | Salinity 110,000 ppm, pH 7 |
| 23:45 | 5200 | vac | | 220.91 | |
| 0:00 | 5800 | vac | | 226.86 | Salinity 108,000 ppm, pH 7, Trace burnable gas at flare stack Daily water production = 53.99 m3 |

Company Representative : _____
BJ Kalsi/Mike Bryson, satellite ph (403) 699-2810

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : March 18, 2004

Day Number : 17

| DAY CREW | CREW | | FROM | TO | TIME SUMMARY | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|----------------------|------------|-------|---|--|------------------------|-------------------|--|----------------------|-------|------|--------------------|--------|------|------------------------|-------|----|----------------------|-------|----|------------------|--------|----|-----------------------|-------|----|
| | Driller | | 0:00 | 2:50 | Cont to gaslift well | | | | | | | | | | | | | | | | | | | | | |
| | Derrick | | 2:00 | 7:30 | Stop gaslift and let well die, record build ups | | | | | | | | | | | | | | | | | | | | | |
| | Floor | | 7:30 | 9:00 | Load CTA and CT with water | | | | | | | | | | | | | | | | | | | | | |
| | Floor | | 9:00 | 19:00 | Lift injector and cut CT on surface, re-stab injector and wait on correct fitting | | | | | | | | | | | | | | | | | | | | | |
| | | | 19:00 | 21:00 | Install fitting and valve to CT | | | | | | | | | | | | | | | | | | | | | |
| | | | 21:00 | 0:00 | Shut down due to bad weather | | | | | | | | | | | | | | | | | | | | | |
| | Accum Press. | | | | <table><tr><td>Daily gas production</td><td>52.54</td><td>e3m3</td></tr><tr><td>Cum gas production</td><td>248.48</td><td>e3m3</td></tr><tr><td>Daily water production</td><td>40.44</td><td>m3</td></tr><tr><td>Cum water production</td><td>267.3</td><td>m3</td></tr><tr><td>Total Load Fluid</td><td>117.00</td><td>m3</td></tr><tr><td>Water Prod. From Well</td><td>150.3</td><td>m3</td></tr></table> | | | | Daily gas production | 52.54 | e3m3 | Cum gas production | 248.48 | e3m3 | Daily water production | 40.44 | m3 | Cum water production | 267.3 | m3 | Total Load Fluid | 117.00 | m3 | Water Prod. From Well | 150.3 | m3 |
| | Daily gas production | 52.54 | e3m3 | | | | | | | | | | | | | | | | | | | | | | | |
| | Cum gas production | 248.48 | e3m3 | | | | | | | | | | | | | | | | | | | | | | | |
| Daily water production | 40.44 | m3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Cum water production | 267.3 | m3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Load Fluid | 117.00 | m3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Water Prod. From Well | 150.3 | m3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Air Shut Off | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stab Valve | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H2S | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - none to report Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | | | | | | | | | | | | | | | | | | | | |
| <u>Diesel fuel usage (m3)</u> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| stationary eqt on location | | | | Today | Cumulative | Total Approved | Scope Change Cost | | | | | | | | | | | | | | | | | | | |
| today | 0.75 | Tangible | | | | | | | | | | | | | | | | | | | | | | | | |
| cumulative | 334.25 | Intangible | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Total | | \$80,475 | \$1,917,422 | \$2,087,900 | | | | | | | | | | | | | | | | | | | | |
| <u>Contractor Hours (on site)</u> | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | | | | | | | | | | | | | | | | | | | | |
| today | 194 | | | | | | | | | | | | | | | | | | | | | | | | | |
| cumulative | 8,595 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | | | | | | | | | | | | | | | | | | | | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Jet cut stuck coil tubing, POOH and R/O CT and test equipment

Continue to gaslift well.
Recovered 40.44 m3 gas lifting well today. Shut down nitrogen injection and allow well to load up with produced water. Shut in well and record build ups.

| Time | Wellhead kpa | Csg kpa | Gas Rate e3m3/d <u>includes N2</u> | Cum Fluid m3 | Comments |
|--|-----------------|------------|--|-----------------|--|
| | | | | 226.86 | Cum vol recovered, production + circ volumes |
| 0:30 | 5200 | vac | 108.2 | 234.3 | Salinity 114,000 ppm, pH 7 |
| 1:00 | 5320 | vac | 97.3 | 242.20 | |
| 1:30 | 5200 | vac | 94.7 | 251.0 | Salinity 128,000 ppm, pH 6 |
| 1:46 | | | | | Stopped pumping nitrogen |
| 2:00 | 3300 | vac | 71.0 | 259.7 | Salinity 124,000 ppm, pH 6 |
| 2:30 | 210 | vac | | 265.7 | |
| 2:45 | 50 | vac | | 267.3 | Salinity 120,000 ppm, pH 7 |
| 2:50 | | | | | Well dead, shut in and record build ups |
| 2:51 | 1800 | | | | |
| 2:55 | 2200 | | | | |
| 3:00 | 2600 | | | | |
| 3:30 | 3780 | | | | |
| 4:00 | 4020 | | | | |
| 5:00 | 4115 | | | | |
| 6:00 | 4200 | | | | |
| 7:00 | 4230 | | | | |
| 7:01 | | | | | Bleed off CTA to test unit and load with water |
| Bleed off CTA pressure, 4129 kpa to test unit and pump 10 m3 fresh water down the CTA. Pressure on CTA after pumping water = TSTM. | | | | | |
| Pump 10 m3 fresh water down the coil tubing (~ 2 times volume). | | | | | |

Confirm that coil tubing is still stuck, pulled to 26,000 daN 3 times. Pull the coil tubing to 20,000 daN (~ 3,000 daN tension) and set the slip rams, pipe rams and close the annular preventer.

Separate the BOP riser pipe from the BOPs and lift injector riser pipe assembly to expose ~ 1.5 m of coil tubing. Install a C plate on top of the BOPs and install a back up clamp to the coil tubing.

Confirm that the coil tubing is dead and cut the coil tubing with a 1m stub sticking out of the top of the BOPs. Unable to install compression fitting onto coil tubing stub due to compression fitting nut being too small. Stab injector and riser pipe back onto BOPs and swallow coil tubing stub while waiting for correct compression fitting nut to arrive.

Install correct compression fitting and valve onto coil tubing stub. Shut down operations for the night due to blizzard conditions.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : **60deg 28'/123 deg 35'**

Date : **March 19, 2004**

Day Number : **18**

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------------------------------|----------------------------|--------|------------------------|-------|---|-------------|------------------------|-------------------|
| | Driller | | 7:00 | 9:00 | R/U wireline equip | | | |
| | Derrick | | 9:00 | 13:30 | RIH with gauge ring, pump as required to aid in running down, Run to depth, POOH with g ring | | | |
| | Floor | | 13:30 | 15:30 | M/U cutter, hold pre arming safety meeting. Arm cutter and RIH, pump cutter down as required | | | |
| | Floor | | 15:30 | 17:00 | Position and fire cutter, POOH with wireline R/D wireline | | | |
| | | | 17:00 | 23:00 | M/U CT connection and N/U injector and POOH with CT, purge CT and secure well for shut down | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - Huskey Tank truck spilled 1.6 m3 produced water on the lease while emptying test unit see spill report for details. Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | Diesel fuel usage (m3) | | | | | | | |
| | stationary eqt on location | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| | today | 0.75 | Tangible Intangible | | | | | |
| | cumulative | 335.00 | | | | | | |
| | | | Total | | \$115,675 | \$2,033,097 | \$2,087,900 | |
| | Contractor Hours (on site) | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | |
| | today | 201 | | | | | | |
| | cumulative | 8,796 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Jet cut stuck coil tubing, POOH

Continue to wait out blizzard conditions before rigging up wireline equipment.

Rig in Ultraline Wireline unit with BOP and grease injection into 50.8 mm valve installed onto the coil tubing stub. RIH with a 38.35 mm (1.51") OD gauge ring on 31.75 mm tool string. Having difficulty running for 200 m due to light tools weight and cold weather conditions (oil in the grease injection head is too viscous).

Run freely to 2850 m, up weight = 1050 lbs, down weight = 450 lbs. Pump down coil tubing with water to help "pump" the tools to bottom. Pump rate = 50 L/min - 125 L/min as required to obtain suitable line speed.
Run to 3585 mKB WL uncorrelated depth, (ICR landed at 3631 mKB). Stop pumping and POOH with wireline.

Huskey Transport tank truck spilled 1.6 m3 produced water on the lease while loading fluid from the test unit. A valve on the opposite side of the truck as the loading side had been left open. The valve was shut in once the spill was noticed. Clean up operations commenced once the spill was discovered. Spill reporting handled by Chevron Ft Liard K-29 operations group. See spill report for additional details.

Make up a 38.1mm S.C. jet cutter, hold pre-arming safety meeting and fill out CCR Perforating Safety Checklist. Arm cutter and RIH on wireline.
Run down to 2980 m freely with wireline and pump tools remainder of the way. Pump at 50 - 150 liters/min with fresh water. Position the jet cutter at **3300 mKB** based on WL uncorrelated depth. Shutdown pumping and detonate jet cutter, noticeable (thump) at the wellhead indicating complete severing of coil tubing.

POOH and rig down the wireline equipment. Pick up injector and make cold roll connection to coil tubing, nipple up injector head to BOP connection. Pull test connection to 22,000 daN tension against the slip rams. Open rams (pips/slips), pull up with coil tubing with free weight of 17,000 daN. POOH with coil tubing.

At surface with coil tubing, purge coil tubing with nitrogen. Rig down injector head and secure well for shut down. Order up 1.75" coil tubing reel for remaining coil tubing operations and order up slickline unit to obtain BHP.

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29
WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'
Date : March 20, 2004
Day Number : 19

| | | | | | | | | |
|-------------------------------------|--------------|------------------------|------|------|---|-------------|------------------------|-------------------|
| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
| | Driller | | 0:00 | 0:00 | Wait on CT reel and slickline, finish cleaning up spill and empty solids from test unit | | | |
| | Derrick | | | | | | | |
| | Floor | | | | | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - finish cleaning up spilled prod water beside test unit Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| Diesel fuel usage (m3) | | | | | | | | |
| stationary eqt on location | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| today | 0.25 | Tangible Intangible | | | | | | |
| cumulative | 335.25 | | | | | | | |
| | | Total | | | \$46,375 | \$2,079,472 | \$2,087,900 | |
| Contractor Hours (on site) | | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | |
| today | 121 | | | | | | | |
| cumulative | 8,917 | | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Wait on replacement coil tubing string and slickline for BHP

Wait on 1.75" coil tubing reel to arrive from Whitecourt. Order up and wait on slickline unit to obtain a bottomhole pressure.

Clean up remainder of spill (1.6 m3 produced water while loading fluid from test unit). Use a steamer with a vacuum truck to clean up any residual produced water sitting on the ice.

Purge 70 m3 storage bullet and remove 7 m3 mud solids from tank bottom at take for disposal to Newalta (FSJ) via Redde Pressure Service vac. truck.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# **RWWNC-R3004-500 (well completion and test)**

LSD : **60deg 28'/123 deg 35'**

Date : **March 21, 2004**

Day Number : **20**

| DAY CREW | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------|----------------------------|--------|------------|-------|---|-------------|------------------------|-------------------|
| | Driller | | 0:00 | 5:00 | Wait on replacement CT string | | | |
| | Derrick | | 5:00 | 9:30 | Rig in 1.75" CT string and change BOP rams, injector components | | | |
| | Floor | | 9:30 | 12:30 | R/U slickline and RIH for static gradient,tag at 775 m, POOH | | | |
| | Floor | | 12:30 | 15:00 | RIH with gauge ring, run to tbg end, POOH | | | |
| | | | 15:00 | 20:00 | RIH with BHP recorders, POOH, R/D slickline | | | |
| | | | 20:00 | 22:00 | R/U injector, BHA and press test | | | |
| | | | 22:00 | 0:00 | RIH coil tubing | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - finish cleaning up spilled prod water beside test unit Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | |
| | Diesel fuel usage (m3) | | | | | | | |
| | stationary eqt on location | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| | today | 0.75 | Tangible | | | | | |
| | cumulative | 336.00 | Intangible | | | | | |
| | | | Total | | \$68,375 | \$2,147,847 | \$2,087,900 | |
| | Contractor Hours (on site) | | | | Lonkar Testing/Trican | | Andy Saboe/Dan Bennett | |
| | today | 241 | | | | | | |
| | cumulative | 9,158 | | | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Obtain BHP with slickline, RIH CT and set IBP and evaluate well

Continue to wait on replacement coil tubing string (1.75") to arrive from Whitecourt. Spot replacement coil tubing string and change out BOP components, stripper and injector blocks from 50.8 mm to 44.45 mm. Function test and pressure test BOP components to 1.4 - 21 mpa with nitrogen.

Rig in Bonnets Slickline c/w standard slickline pressure control equipment onto coil tubing BOPs. Pressure test slickline BOPE with wellhead gas pressure to 8.3 mpa (SITP by deadweight).

RIH with dual electronic Kalscan HT (165 deg C) 35 mpa pressure recorders on 316 - .108 slickline with 38.1 mm roller stem tool string. Roller OD = 57.4 mm (to aid in getting slickline tools to target depth with out pumping).

Run with recorders to 775 mKB WL, tag out against obstruction. Attempt to get past obstruction with BHP recorders, unable to. POOH and RIH with 59.4 mm gauge ring (2.34"). Tag obstruction at 775 mKB, hammer down for 15 mins and then fall free. Run down to 2874 mKB (crossover to 114.3 mm tbg). Tagged out twice while RIH between 775 - 2874 mKB. Hammer down on obstruction for 5 mins to get past 2874 mKB. Run gauge ring to 2926 mKB (tailpipe end). POOH with gauge ring.

Make up BHP recorders and RIH to perform a static pressure survey as follows:
Make the following 10 minute stops in mKB:

| | | |
|------|------|--------------------------------------|
| 0 | 2500 | 2926 (1 hour stop at tailpipe end) |
| 1000 | 2676 | |
| 1500 | 2776 | |
| 2000 | 2876 | |

KB elev = 416.9 m KB - CF/GL = 7 m
GL elev = 409.9 m

POOH and download recorders data: **BHP at 2926 mKB MD = 21,907.6 kpa, BHT = 152.8 deg C.** Pressure was stable at 21.9076 for the entire 1 hour period.

Laydown and rig out wireline equipment. R/U Baker BHA:

- coil tubing connector (pull tested to 15, 000 daN)
- flapper checkvalves
- ball operated circulation sub
- ball operated disconnect
- hydraulic centralizer
- gauge ring (85.7 mm OD guide)

Pressure test coil tubing and injector head connection to 1.4 mpa and 21 mpa with nitrogen.
RIH with coil tubing BHA to ensure clear passage for upcoming IBP run.

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : **March 22, 2004**

Day Number : **21**

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|----------------------|------------------------|-----------|---|--|--|-------------|------------------------|----------------|----------------------|-------------------|------|--------------------|--------|------|------------------------|------|----|----------------------|-------|----|------------------|-------|----|-----------------------|-------|----|
| | Driller | | 0:00 | 4:30 | RIH with gauge ring on coil tubing, POOH | | | | | | | | | | | | | | | | | | | | | | |
| | Derrick | | 4:30 | 7:15 | Make up IBP assembly, press test | | | | | | | | | | | | | | | | | | | | | | |
| | Floor | | 7:15 | 12:30 | RIH and set IBP | | | | | | | | | | | | | | | | | | | | | | |
| | Floor | | 12:30 | 15:00 | Gas lift well | | | | | | | | | | | | | | | | | | | | | | |
| | | | 15:00 | 20:30 | Acidize well | | | | | | | | | | | | | | | | | | | | | | |
| | | | 20:30 | 22:50 | Gaslift well | | | | | | | | | | | | | | | | | | | | | | |
| | | | 22:50 | 0:00 | Shut in well and wait on tank truck to empty test equip | | | | | | | | | | | | | | | | | | | | | | |
| | Accum Press. | | | | <table><tr><td>Daily gas production</td><td>67.39</td><td>e3m3</td></tr><tr><td>Cum gas production</td><td>314.08</td><td>e3m3</td></tr><tr><td>Daily water production</td><td>63.1</td><td>m3</td></tr><tr><td>Cum water production</td><td>330.4</td><td>m3</td></tr><tr><td>Total Load Fluid</td><td>133.0</td><td>m3</td></tr><tr><td>Water Prod. From Well</td><td>197.4</td><td>m3</td></tr></table> | | | | | Daily gas production | 67.39 | e3m3 | Cum gas production | 314.08 | e3m3 | Daily water production | 63.1 | m3 | Cum water production | 330.4 | m3 | Total Load Fluid | 133.0 | m3 | Water Prod. From Well | 197.4 | m3 |
| | Daily gas production | 67.39 | e3m3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Cum gas production | 314.08 | e3m3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Daily water production | 63.1 | m3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cum water production | 330.4 | m3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Load Fluid | 133.0 | m3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water Prod. From Well | 197.4 | m3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Air Shut Off | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stab Valve | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H2S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ambient temp | | | | PP&E Summary: Near miss incidents - none to report Spills or emissions - finish cleaning up spilled prod water beside test unit Hold safety/JSHA/operations meetings at the start of each tour and prior to any operation that involves 3rd party crews. | | | | | | | | | | | | | | | | | | | | | | | |
| <u>Diesel fuel usage (m3)</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| stationary eqpt on location | | | | | Today | | Cumulative | | Total Approved | | Scope Change Cost | | | | | | | | | | | | | | | | |
| today | 0.75 | Tangible Intangible | | | | | | | | | | | | | | | | | | | | | | | | | |
| cumulative | 336.75 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Total | \$125,375 | | \$2,273,222 | | \$2,087,900 | | | | | | | | | | | | | | | | | | | | |
| <u>Contractor Hours (on site)</u> | | | | Lonkar Testing/Trican | | | | Andy Saboe/Dan Bennett | | | | | | | | | | | | | | | | | | | |
| today | 221 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| cumulative | 9,391 | | | RIG OR CONTRACTOR | | | | CONTRACTOR REP. | | | | | | | | | | | | | | | | | | | |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Make gauge ring on coil tubing, RIH and set IBP, Gaslift well and evaluate

Continue to RIH with coil tubing (gauge ring run) to 3290 mKB (10 m short of coil tubing fish in openhole). Pull coil tubing back into the tubing to 2874 mKB (crossover to 127 mm tbg). Run back to 3290 mKB with gauge ring. No weight changes observed when travelling with coil tubing in either direction. POOH with coil tubing.

- Make up Baker's Thru Tubing equipment as follows:
- coil tubing connector (pull tested to 15, 000 daN)
 - flapper checkvalves
 - ball operated circulation sub
 - ball operated disconnect
 - IBP setting tool
 - 85.7 mm Inflatable Retrievable Bridge Plug

- Back load coil tubing with 60 liters water to inflate IBP with. IBP set with 3 mpa applied pressure.
- Nipple up injector/lubricator assembly onto BOPs and pressure test with nitrogen as follows:
- CTA to 10 mpa
 - CT to 5 mpa
 - CTA to 18 mpa

Open wellhead: CT 5 mpa, CTA 5.7 mpa

RIH with IBP on coil tubing, conduct pull tests a s required. At 1800 m, CT 4.5, CTA 5.7 mpa. Increase coil tubing pressure to 7.5 with nitrogen to minimise coil tubing collapse concerns. Pull test coil tubing 3285 mKB, up 8,000 daN, down 5,900 daN.

Run through openhole with out seeing any abnormal weight changes (OH appears to be smooth and with out any bridges). Run the coil tubing BHA to 3285 mKB and pull back to position center element at 3273 mKB, IBP top is at 3271 mKB. Paint coil tubing for future depth reference.

CT press 8.1 mpa, CTA press 6.9. Pressure up the coil tubing to 21 mpa with nitrogen to set IBP, set down 1,500 daN down to confirm anchoring of IBP to openhole wall. Wait 20 mins to allow IBP element to contour to openhole walls. Continue to pressure up coil tubing to 26.5 mpa with nitrogen to fully set IBP and release running tool from IBP(release is automatic upon reaching shear value). Release observed by a drop in the coil tubing pressure, wait 5 mins to ensure release is complete. Pull up cleanly from the IBP top.

Pull the coil tubing to 2874 mKB (127 mm tbg), no over pull noticed while pulling coil tubing BHA thru tailpipe. Open well to flow to flare stack through the test unit. Pump ball down coil tubing to open circ sub to allow unrestricted pumping of nitrogen thru BHA. Pump nitrogen down coil tubing at 25 - 40 scm/min as required to assist well. Pull coil tubing to and sit at 1500 m while evaluating well inflow.

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : March 22, 2004

Day Number : 21

JOB OBJECTIVE:

Initial well completion and production test.

DETAILS:

Make gauge ring on coil tubing, RIH and set IBP, Gaslift well and evaluate

Continued from page # 1.

Gas lift well as follows to evaluate fracture at 3250 m. Recovered 15.2 m3 fluid with a salinity of 10,000 ppm and pH 7. Lost fluid returns, suspect that IBP has stopped the water inflow from the toe of well.

Pull up to 1600 m with coil tubing with out any increase in fluid returns, run back down to 2100 m with no fluid gain. Stop pumping nitrogen with coil tubing at 2100 m and shut in well.

Transfer 15 m3 of 15 % HCL from 2K-29 stock and add additional inhibitor as required for coil tubing operations. Rig in shower unit and hold safety meeting.

Note: for an estimated BHP calculation: CTA 18 mpa = 22 mpa BHP with gas column.

RIH and position the coil tubing at 3255 mKB. CT press = 2.5 mpa, CTA = 3.3 mpa. Pump 1000 scm nitrogen down the well to build BHP. Pressures after pumping 1000 scm nitrogen : CT 12.1 mpa, CTA 4.1 mpa. Decided to pump another 1000 scm nitrogen to further increase BHP. Pressures after pumping 2000 scm nitrogen : CT 17 mpa, CTA 7.3 mpa.

Acid wash:

Load coil tubing with acid and wash 7.5 m3 acid across openhole from 3255 mKB - 3000 mKB. CTA closed in for this operation. Pumped acid out coil tubing at ~300 L/min while pulling back with coil tubing at ~ 10.2 m/min. Displaced the acid from the coil tubing with nitrogen. CTA pressure increased from 9.1 mpa to 12.4 mpa after pumping out the 7.5 m3 acid. Estimated CTA BHP at start of acid wash stage = 12 mpa, at end of acid stage = 22.1 mpa (acid HH + N2 HH+ 12.1 mpa).

Run back to 3252 mKB (target fracture) while pumping nitrogen at 25 scm/min.

Acid squeeze:

Position the coil tubing nozzle at 3252 mKB, load coil tubing with 7.5 m3 acid and displace with 1 m3 water and nitrogen. Maintain displacement rates to equal 275 - 350 L/min acid exit from the nozzle.

CTA at start of stage 13.1 mpa, CTA at end of stage 13 mpa. Estimated CTA BHP at start of stage 23.1 mpa.

Pull up with coil tubing into tubing end while pumping nitrogen at 15 scm/min and open well to flow to test unit.

Continued on page # 3

Company Representative : _____
BJ Kalsi/Mike Bryson, satellite ph (403) 699-2810

PRODUCTION TOUR REPORT

Well Name: Chevron et al Ft Liard 3K-29

WBSE# RWWNC-R3004-500 (well completion and test)

LSD : 60deg 28'/123 deg 35'

Date : March 22, 2004

Day Number : 21

| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
|-------------------------------------|--------------|--|------------|----|-------------------|------------|----------------|-------------------|
| | Driller | | | | | | | |
| | Derrick | | | | | | | |
| | Floor | | | | | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | | | | |
| | | | | | Today | Cumulative | Total Approved | Scope Change Cost |
| | | | Tangible | | | | | |
| | | | Intangible | | | | | |
| | | | Total | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | RIG OR CONTRACTOR | | | CONTRACTOR REP. |

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Make gauge ring on coil tubing, RIH and set IBP, Gaslift well and evaluate

Continued from page # 2.

| Time | Wellhead kpa | Csg kpa | Gas Rate e3m3/d <u>includes N2</u> | Cum Fluid m3 | Comments |
|-------|-----------------|------------|--|-----------------|--|
| | | | | 267.3 | Cum fluid production Open CTA to test equipment, pump nitrogen down CT at 25 - 40 scm/min |
| 12:47 | 7300 | vac | | | |
| 12:55 | 2116 | vac | | | |
| 13:06 | 66 | vac | | | Fluid to surface |
| 13:30 | 1700 | vac | | 270.80 | |
| 14:00 | 2983 | vac | | 282.52 | |
| 14:30 | 539 | vac | | 282.52 | Recovered 15.2 m3 fluid (tbg vol = ~ 16 m3) Pull coil tubing up to 1600 m, nitrogen at 40 scm, run back to 2100 m in an attempt to obtain fluid returns. |
| 15:00 | | | | 282.52 | Coil tubing at 2170 m, stop pumping nitrogen and close in well at choke Transfer acid from K-29 stock to acid pumper and prepare to acidize well Acidize well with 15 m3 acid + 1 m3 flush water + nitrogen Load from acidizing = 16 m3 Pull up to 2000 m with coil tubing while pumping nitrogen at 15 scm/min Open well to flow |
| 20:30 | 12999 | vac | | | |
| 21:00 | 3790 | vac | | 297.52 | Salinity 124,000 ppm, pH 6, nitrogen at 40 scm/min Burnable gas to surface |
| 21:10 | | | | | |
| 21:30 | 4440 | vac | | 300.49 | |
| 22:00 | 5702 | vac | 115.1 | 309.52 | Salinity 142,000 ppm, pH 5 |
| 22:30 | 4419 | vac | 117.5 | 321.02 | |
| 22:45 | 4850 | vac | 115.4 | 330.40 | Salinity 213,000 ppm, pH 4 (acid influence), H2S 0.5% by tube Stop nitrogen injection and shut in well at choke due to test equipment filling up with fluid. Wait on tank truck |
| 22:50 | | | | | |
| 0:00 | | | | | Wait on tank truck |

Well Name: Chevron et al Ft Liard 3K-29

LSD : 60deg 28'/123 deg 35'

Day Number : 22

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: POOH with coil tubing, wait on orders, rig out CTU, well testers

POOH with coil tubing. Haul out produced fluid from test unit and haul to Integrity Disposal (FSJ) via Husky Transport.

Install IBP retrieving tool on to coil tubing BHA and nipple up injector head onto BOPs. Wait on orders from Calgary operations.

Rig out Trican CTU, nitrogen pumper. Release wireline, steamer. Start rig out test equipment. Shut down at 2000h, daylight operations only.

Company Representative : _____
BJ Kalsi/Mike Bryson, satellite ph (403) 699-2810

PRODUCTION TOUR REPORT

Well Name: **Chevron et al Ft Liard 3K-29**

LSD : **60deg 28'/123 deg 35'**

WBSE# **RWWNC-R3004-500 (well completion and test)**

Date : **March 24, 2004**

Day Number : **23**

| | | | | | | | | |
|-------------------------------------|-----------------------------|--|------|-------|---|--|--|--|
| D A Y C R E W | CREW | | FROM | TO | TIME SUMMARY | | | |
| | Driller | | 0:00 | 8:00 | Wait on daylight | | | |
| | Derrick | | 8:00 | 16:00 | Rig out Lonkar Well Testing, haul out 44m3 produced water. Job complete | | | |
| | Floor | | | | | | | |
| | Floor | | | | | | | |
| | Accum Press. | | | | | | | |
| | Air Shut Off | | | | | | | |
| | Stab Valve | | | | | | | |
| | H2S | | | | | | | |
| | Ambient temp | | | | | | | |
| | Diesel fuel usage (m3) | | | | | | | |
| | stationary eqpt on location | | | | | | | |

| | | | | | | |
|------------|--------|------------|----------|-------------|-------------|--|
| today | | Tangible | | | | |
| cumulative | 337.50 | Intangible | \$21,075 | | | |
| | | Total | \$21,075 | \$2,486,672 | \$2,087,900 | |

| | | | | | |
|----------------------------|-------|-------------------|--|-----------------|--|
| Contractor Hours (on site) | | Lonkar Testing | | Andy Saboe | |
| today | 144 | | | | |
| cumulative | 9,627 | RIG OR CONTRACTOR | | CONTRACTOR REP. | |

Daily gas productionN/A e3m3Cum gas production314.08 e3m3Daily water productionN/A m3Cum water production330.4 m3Total Load Fluid133.0 m3Water Prod. From Well197.4 m3

PP&E Summary:
Near miss incidents - none to report
Spills or emissions - none to report
Hold safety/JSHA/operations meeting @ 0800h

JOB OBJECTIVE: Initial well completion and production test.

DETAILS: Rig out well testers. Job complete

Wait on daylight, rig and load out test equipment. Shut down completion operations.