



**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

698491  
V12

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

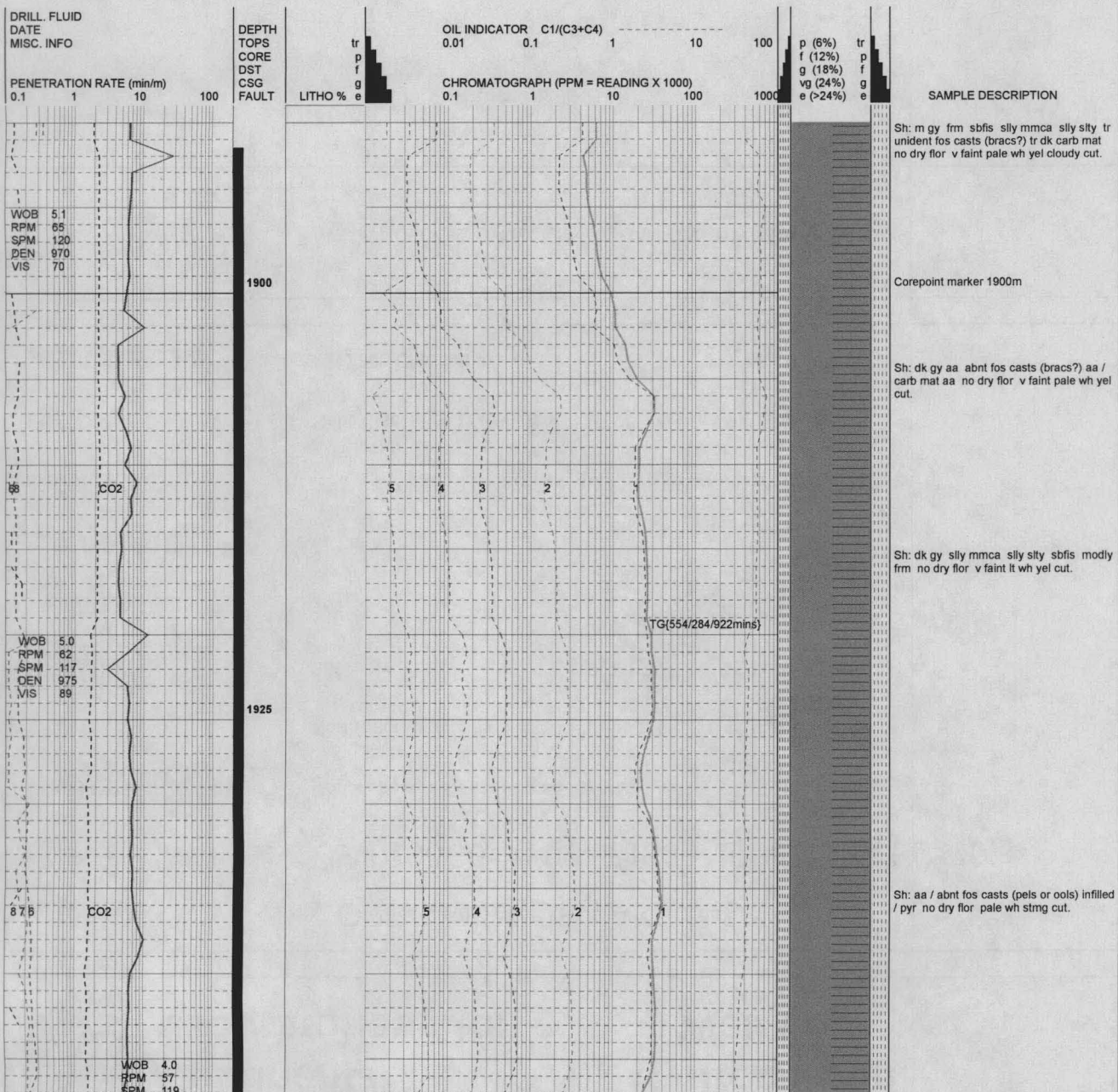
LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

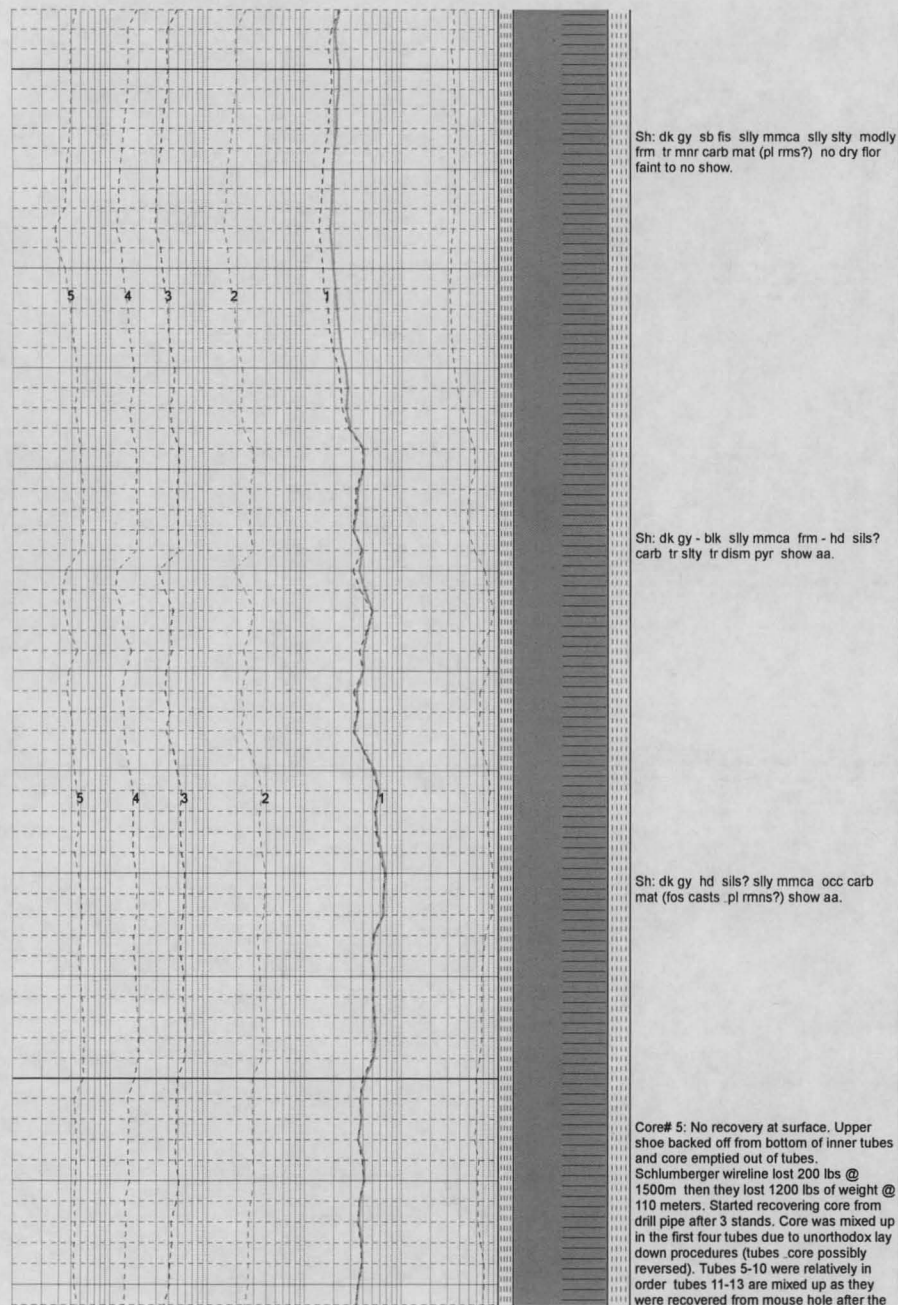
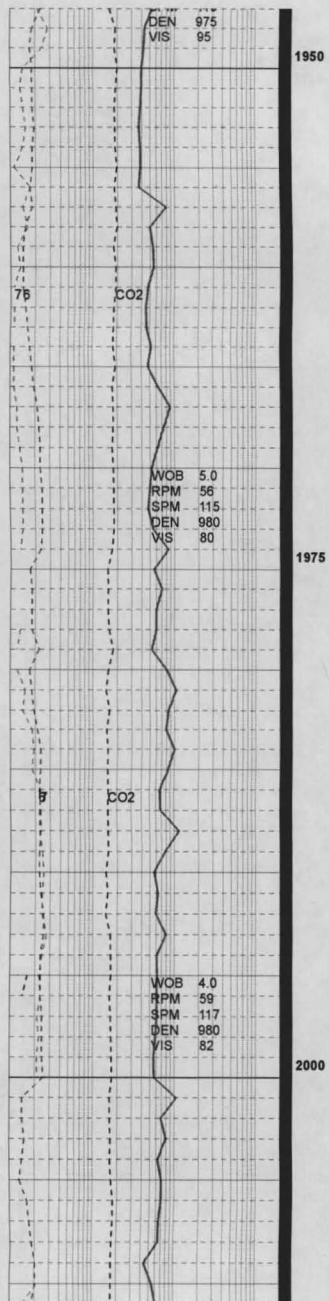
PERSONNEL: Rahil Kiani / Fayaz Rehman

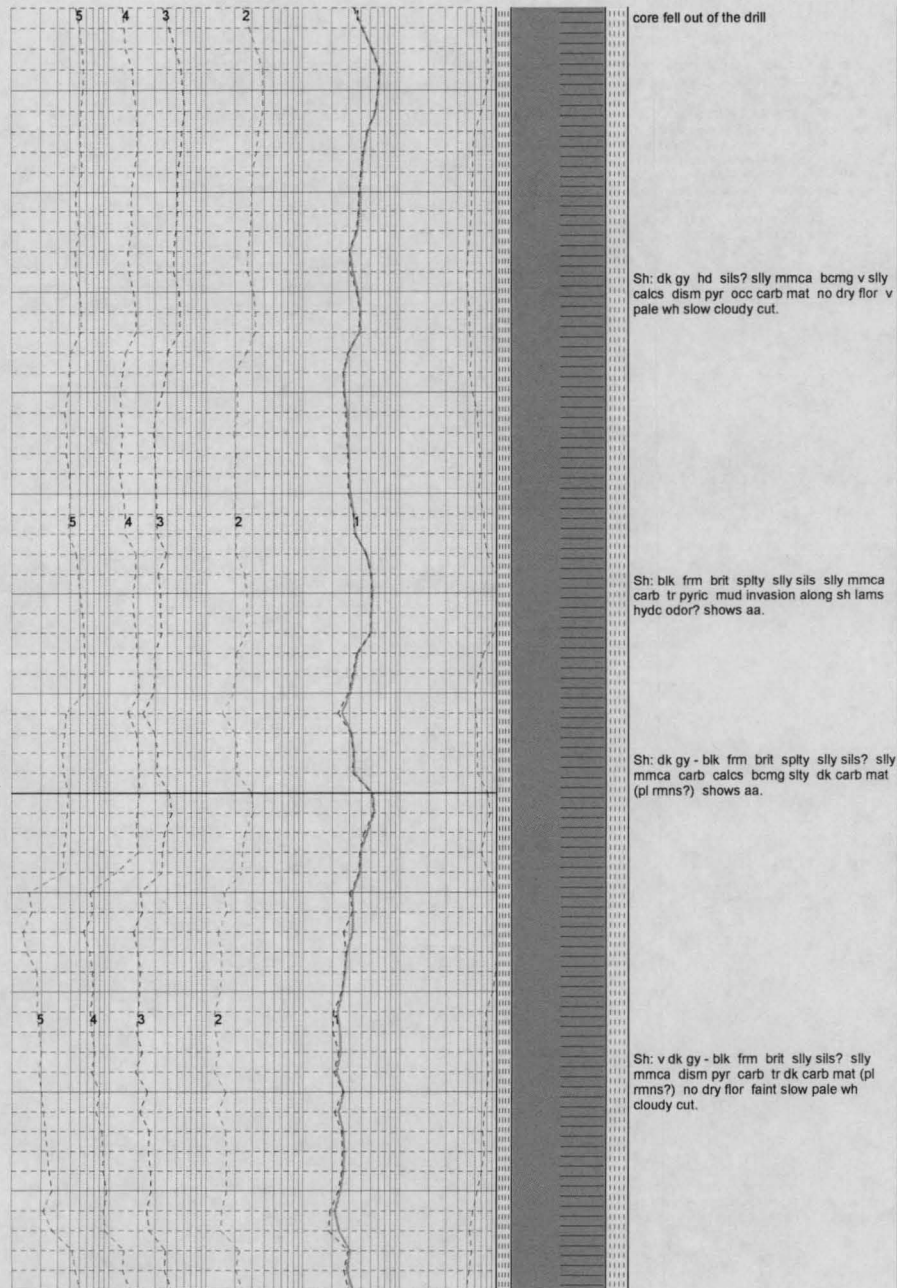
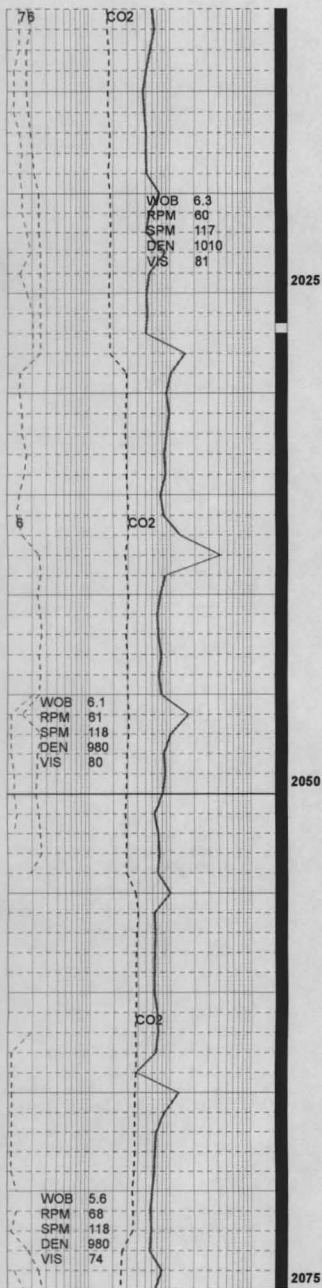
INSTRUMENTATION: MP 2300 Chromat

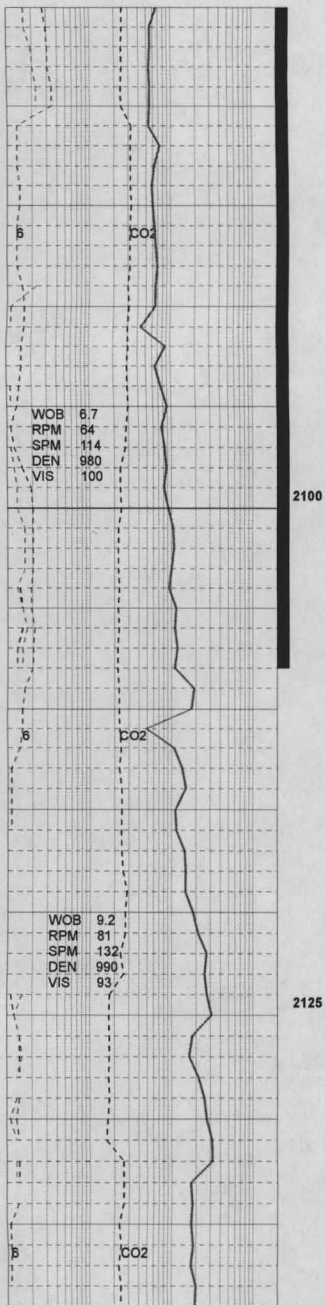
ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

| BITS<br>SURVEYS<br>DRILL. FLUID<br>DATE<br>MISC. INFO | DEPTH<br>TOPS<br>CORF | T<br>S<br>E | TOTAL GAS (Units)        |     |     |      | P<br>O<br>R<br>% | p (6%)<br>f (12%) | V<br>I<br>S<br>S<br>H<br>O<br>W |
|-------------------------------------------------------|-----------------------|-------------|--------------------------|-----|-----|------|------------------|-------------------|---------------------------------|
|                                                       |                       |             | 1                        | 10  | 100 | 1000 |                  |                   |                                 |
|                                                       |                       |             | OIL INDICATOR C1/(C3+C4) |     |     |      |                  |                   |                                 |
|                                                       |                       |             | 0.01                     | 0.1 | 1   | 10   | 100              |                   |                                 |
|                                                       |                       | tr n        |                          |     |     |      |                  |                   | tr n                            |



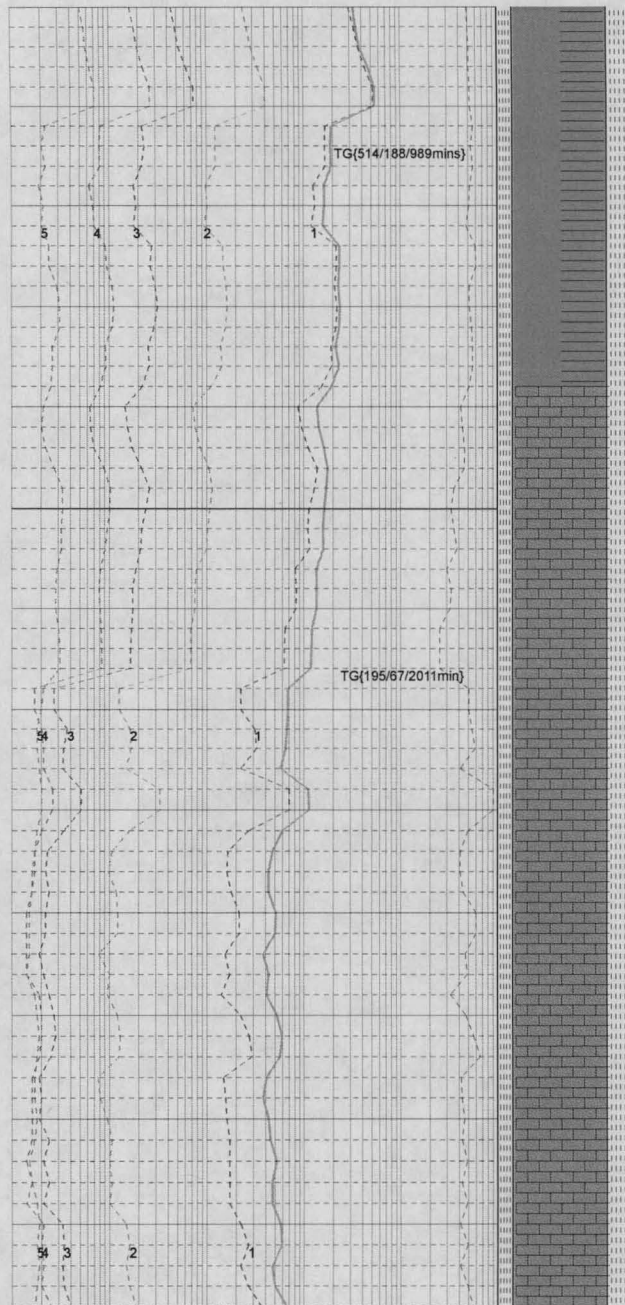






2100

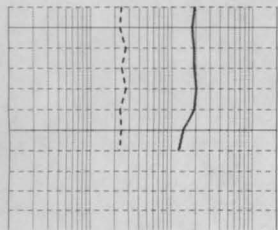
2125



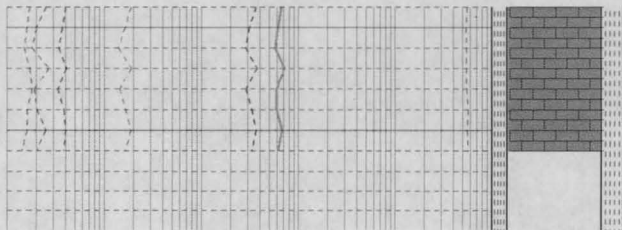
Sh: v dk gy frm splty brit sils? v sily  
mmca v abnt spotted (pels?) dk carb mat  
(grds to bit?) show aa but sily brighter.

Ls: lt brn fragal wkest rexld ip f - m xdn  
sily arg unident fos casts (cor) infilled with  
xdn fros calc dns no shows.

Ls: brn wkest occ unident fos frags  
gasts? unident cor casts infilled / calc sily  
arg dns no vis shows.



2150





**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

698491  
V11

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

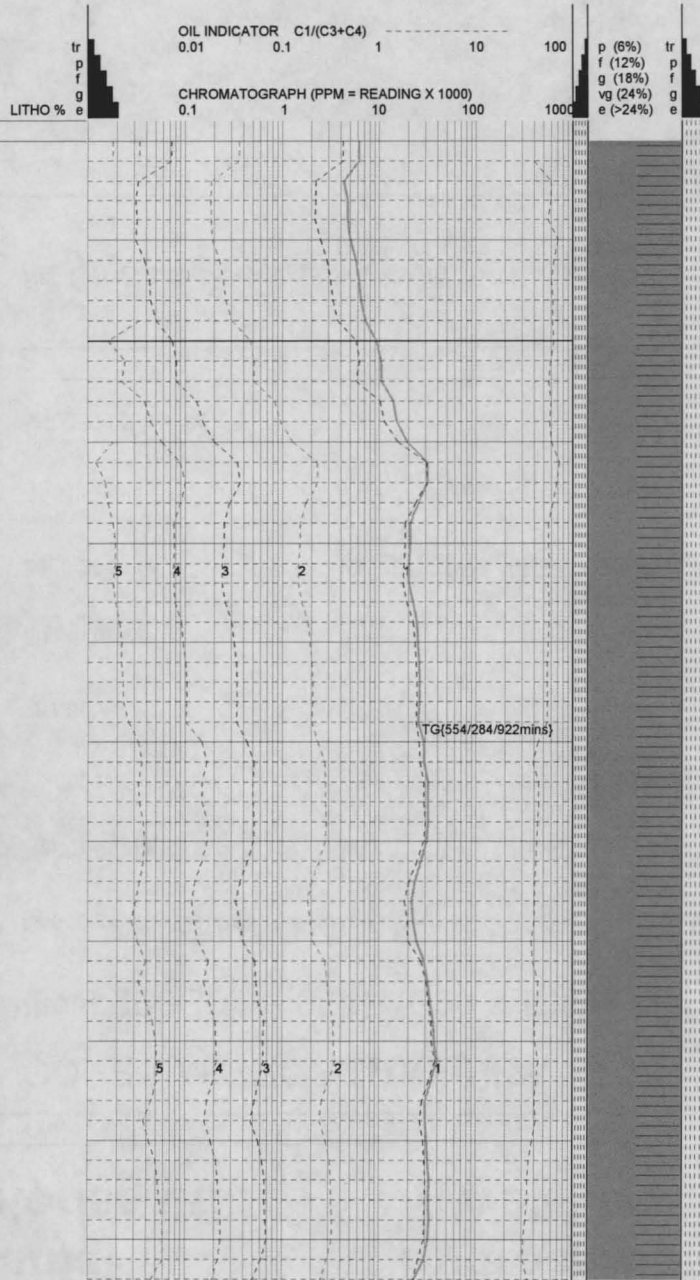
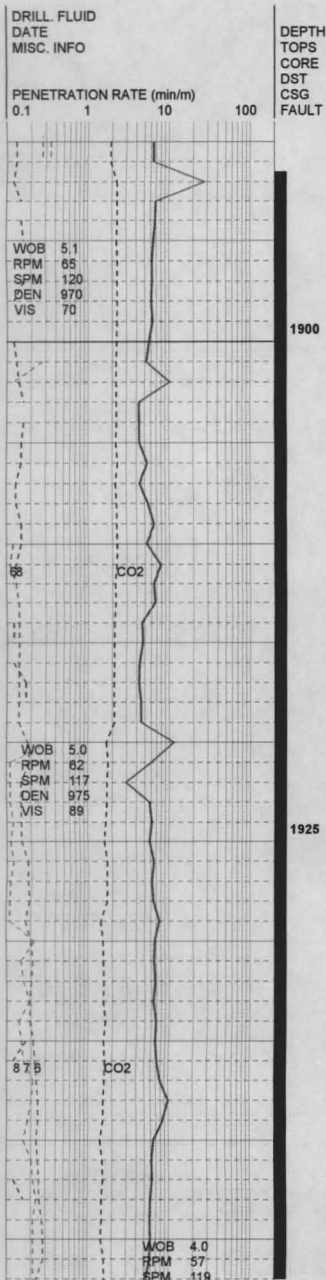
LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

| BITS<br>SURVEYS<br>DRILL. FLUID<br>DATE<br>MISC. INFO | DEPTH<br>TOPS<br>CORF | T<br>S<br>E | TOTAL GAS (Units)        |     |     |      |       | P<br>O<br>R<br>%  | V<br>I<br>S<br>S<br>H<br>O<br>W |
|-------------------------------------------------------|-----------------------|-------------|--------------------------|-----|-----|------|-------|-------------------|---------------------------------|
|                                                       |                       |             | 1                        | 10  | 100 | 1000 | 10000 |                   |                                 |
|                                                       |                       |             | OIL INDICATOR C1/(C3+C4) |     |     |      |       |                   |                                 |
|                                                       |                       |             | 0.01                     | 0.1 | 1   | 10   | 100   | p (6%)<br>f (12%) |                                 |



SAMPLE DESCRIPTION

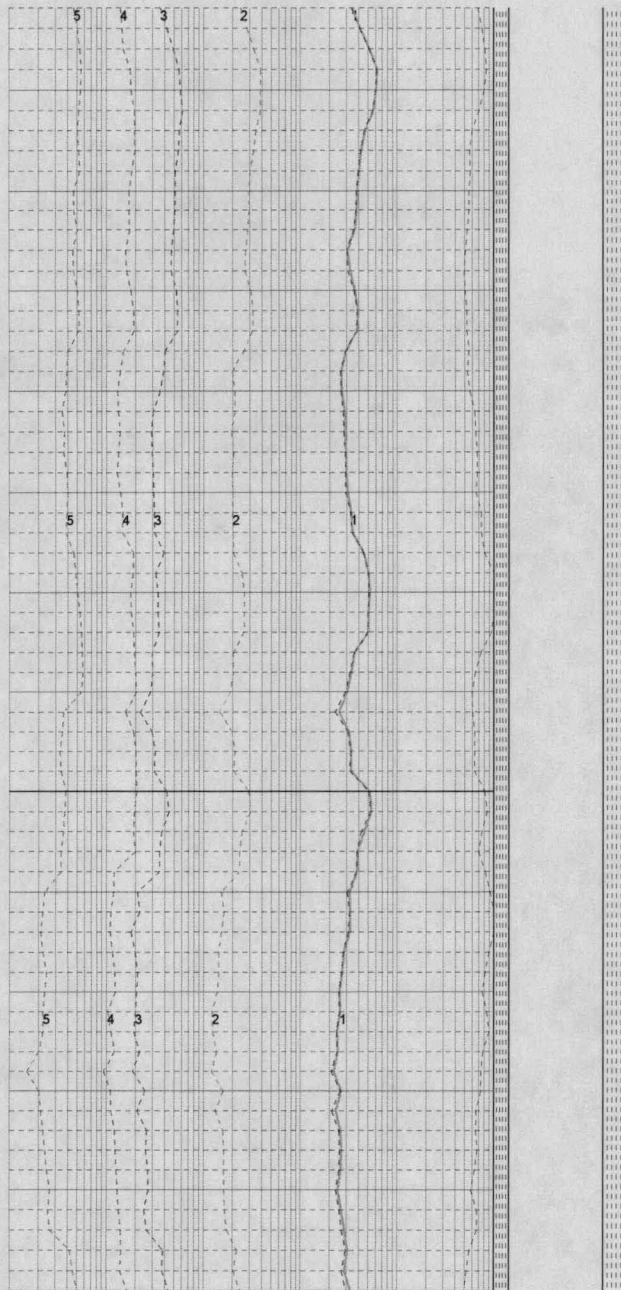
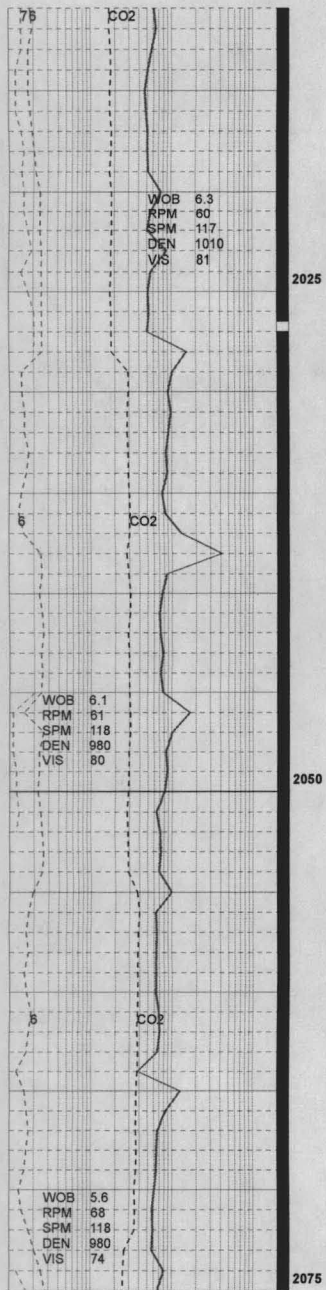
Sh: mgy frm sbfis sily mmca sily sity tr  
unident fos casts (bracs?) tr dk carb mat  
no dry flor v faint pale wh yel cloudy cut.

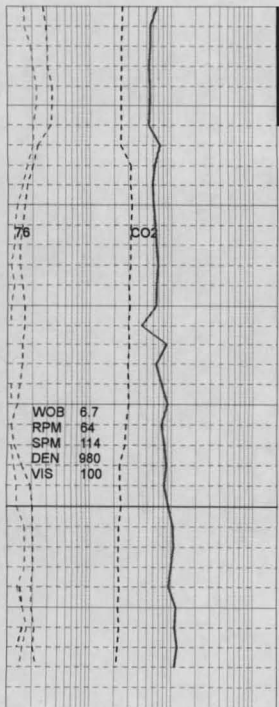
Corepoint marker 1900m

Sh: dk gy aa abnt fos casts (bracs?) aa /  
carb mat aa no dry flor v faint pale wh yel  
cut.

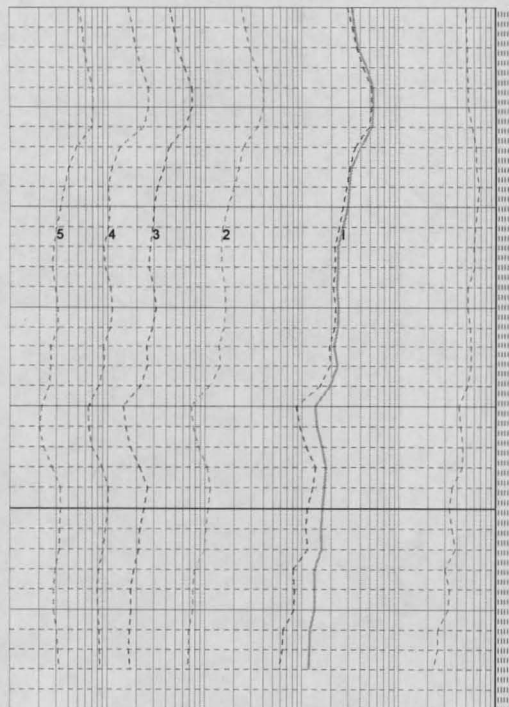
Sh: dk gy sily mmca sily sity sbfis modly  
frm no dry flor v faint lt wh yel cut.







2100





**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

698491  
V10

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

BITS  
SURVEYS  
DRILL FLUID  
DATE  
MISC. INFO

DEPTH  
TOPS  
CORF

tr  
n

T  
S  
E

TOTAL GAS (Units)

1 10 100 1000 10000

OIL INDICATOR C1/(C3+C4)

0.01 0.1 1 10 100

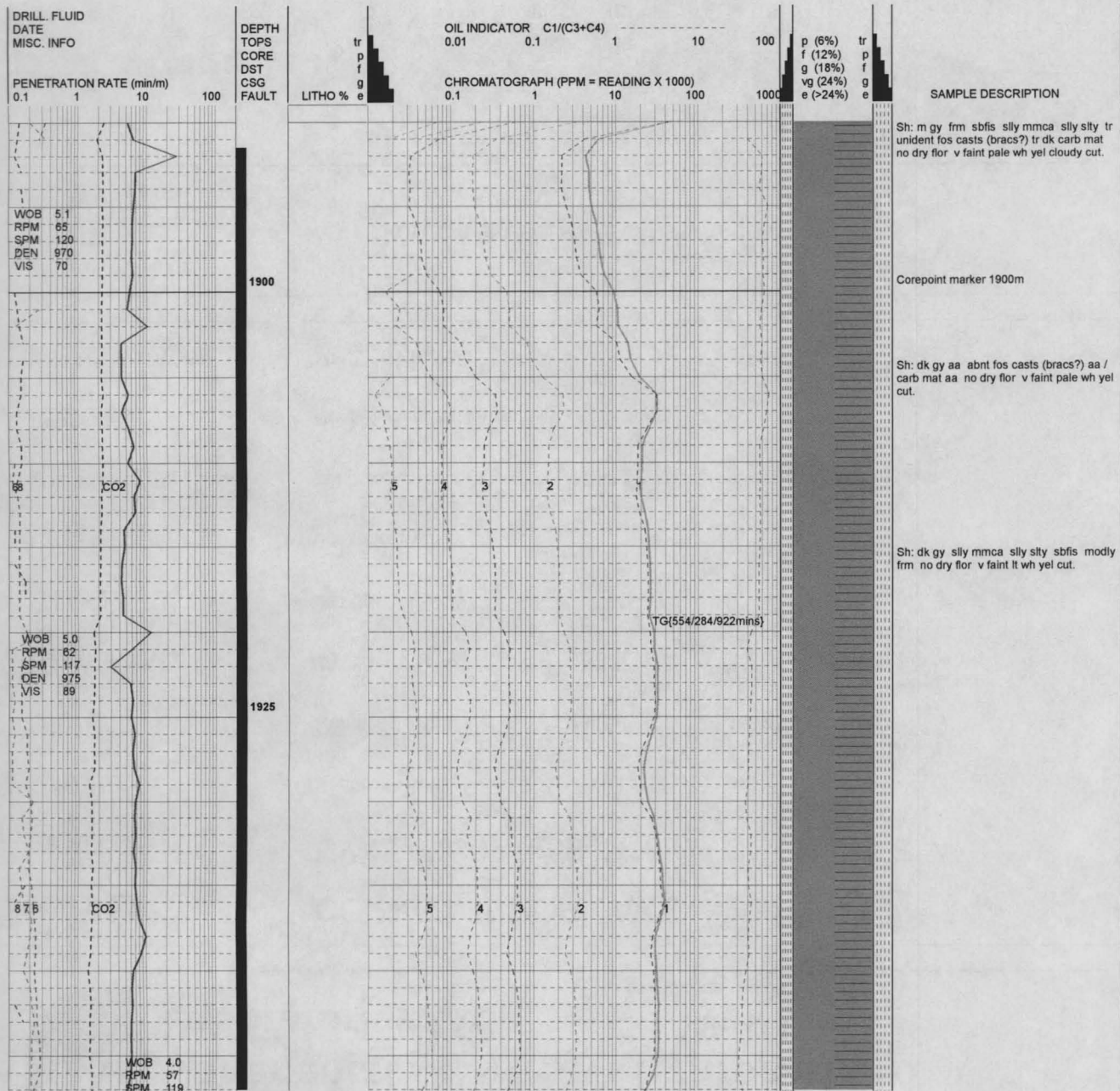
P  
O  
R  
%

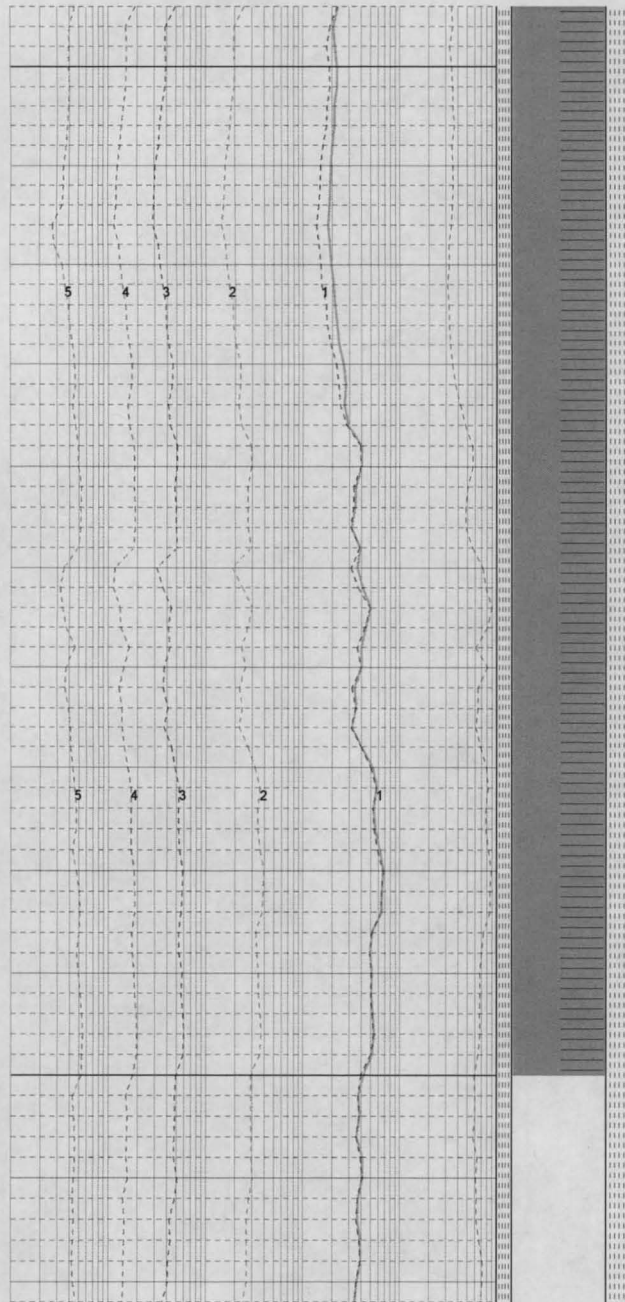
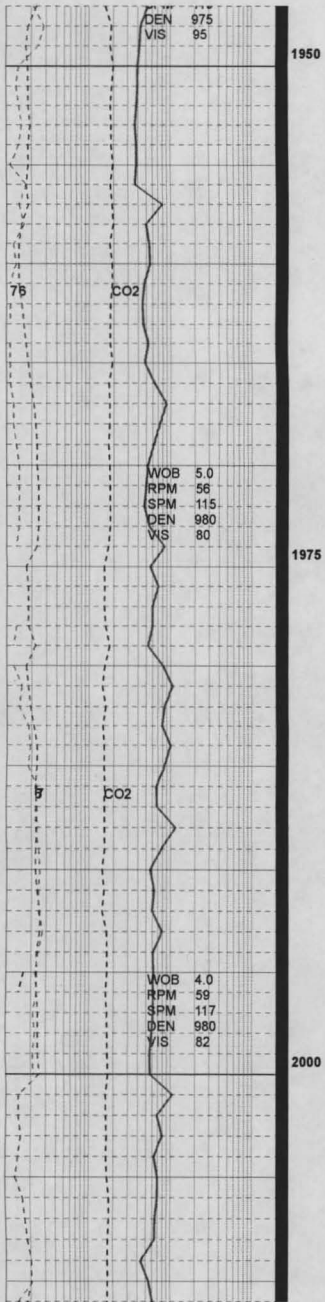
tr  
n

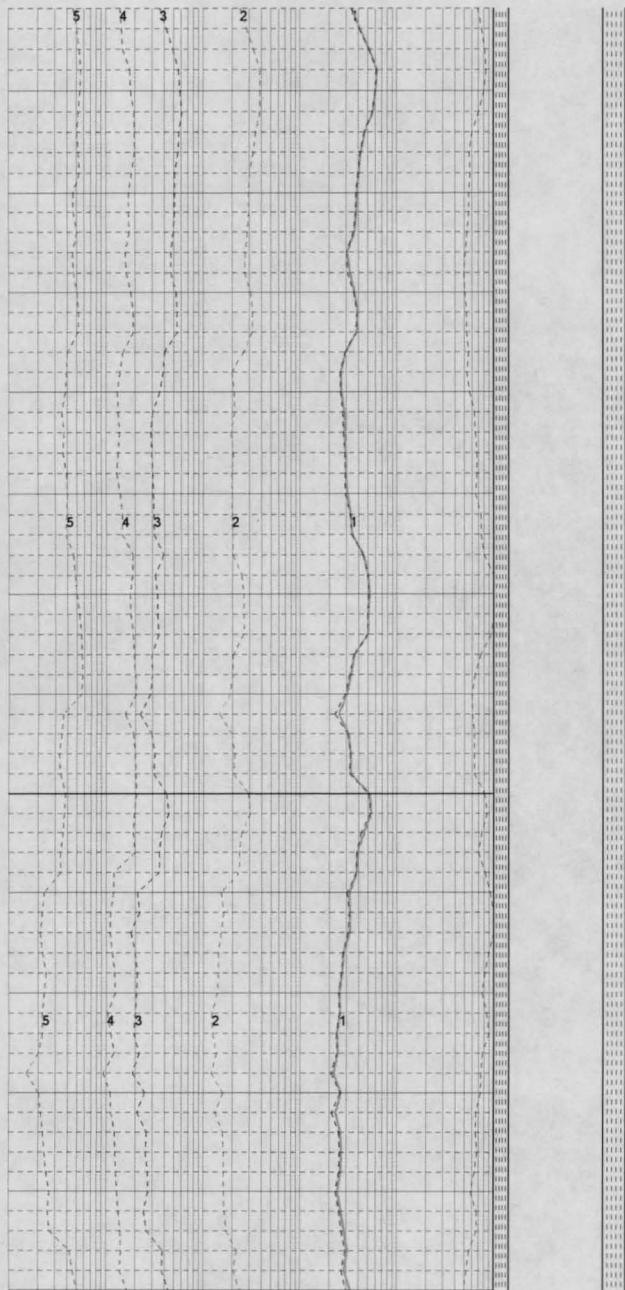
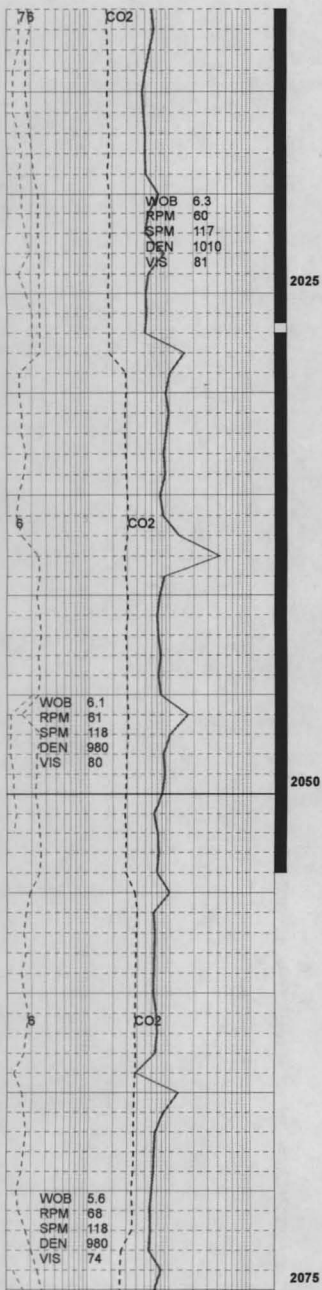
p (6%)  
f (12%)

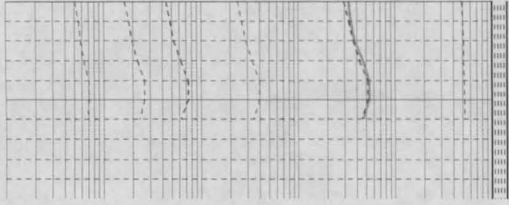
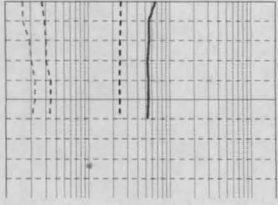
V  
I  
S  
S  
H  
O  
W

tr  
n











**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

698491  
v9

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

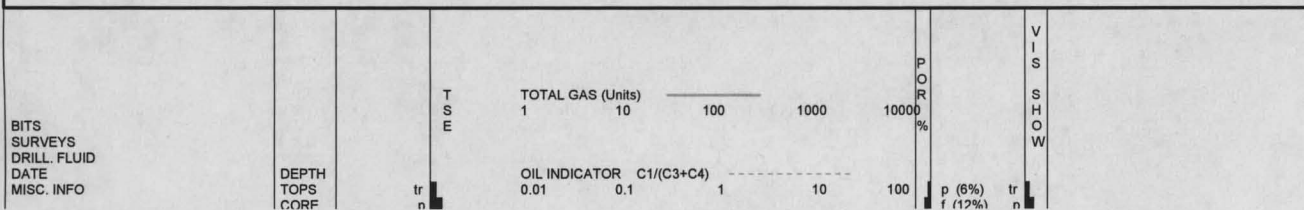
LOGGING INTERVAL: 601 m to m

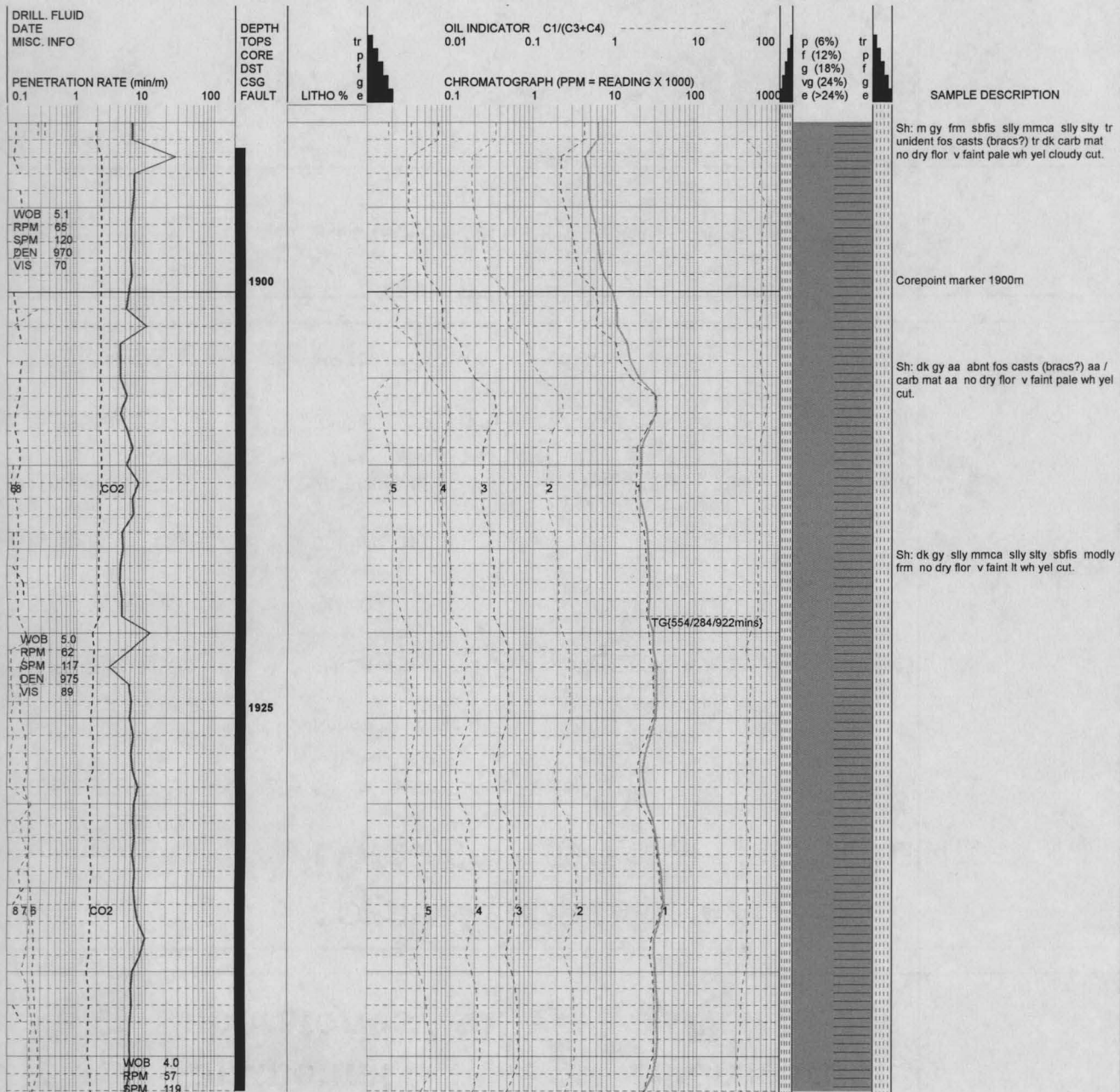
LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

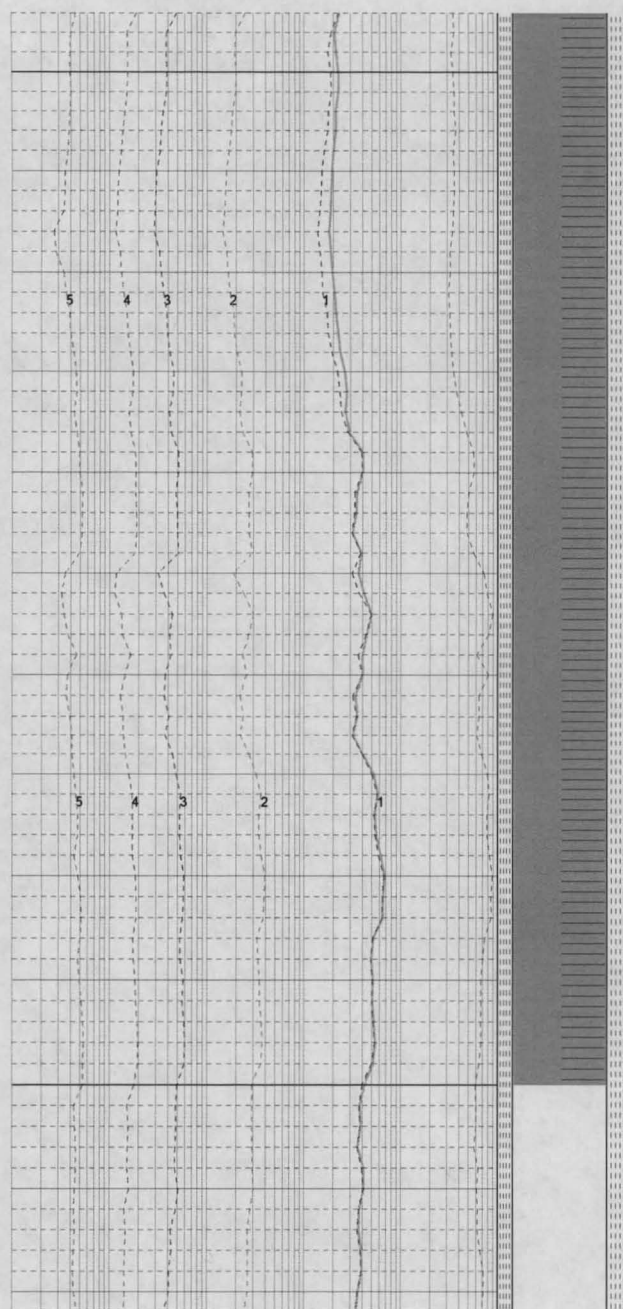
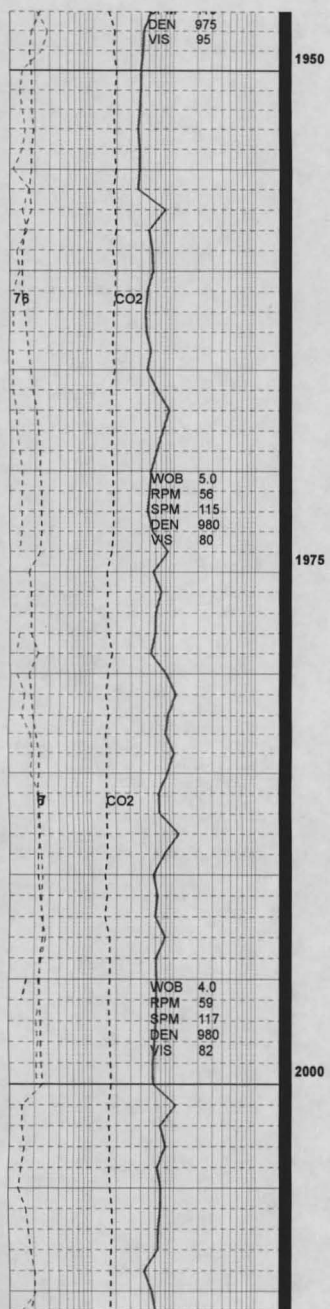
PERSONNEL: Rahil Kiani / Fayaz Rehman

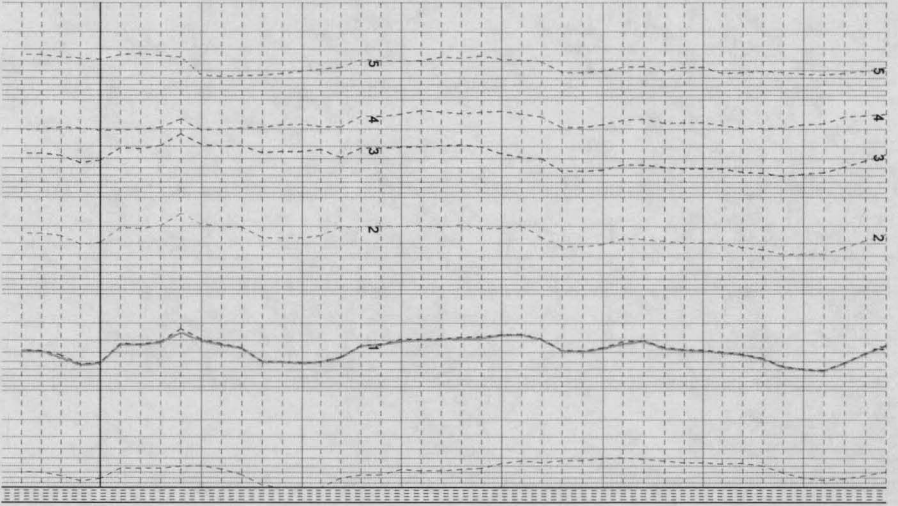
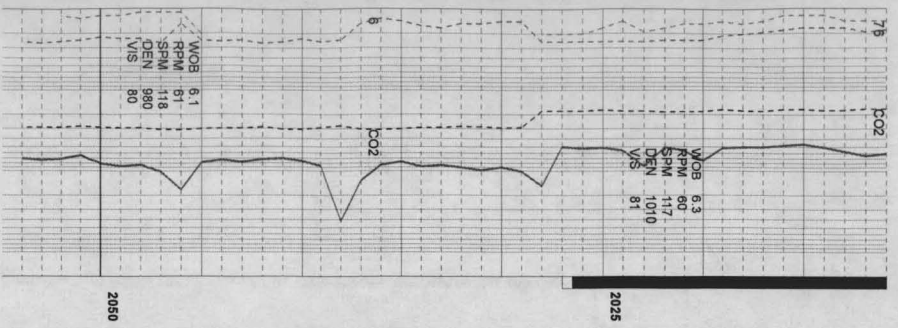
INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE











**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

698491  
v8

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

BITS  
SURVEYS  
DRILL FLUID  
DATE  
MISC. INFO

DEPTH  
TOPS  
CORF

T  
S  
E  
tr  
n

TOTAL GAS (Units)

1 10 100 1000 10000

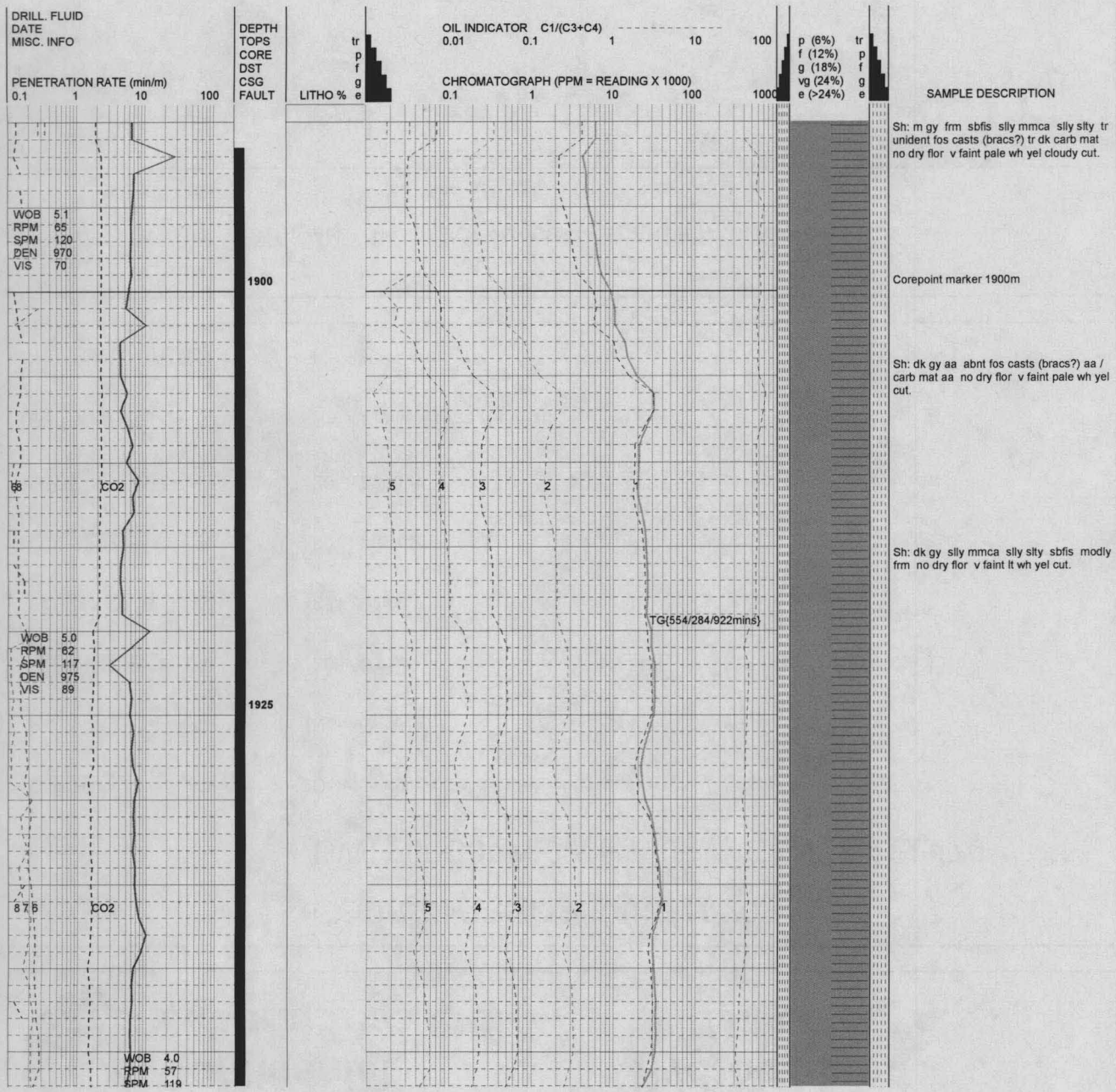
OIL INDICATOR C1/(C3+C4)

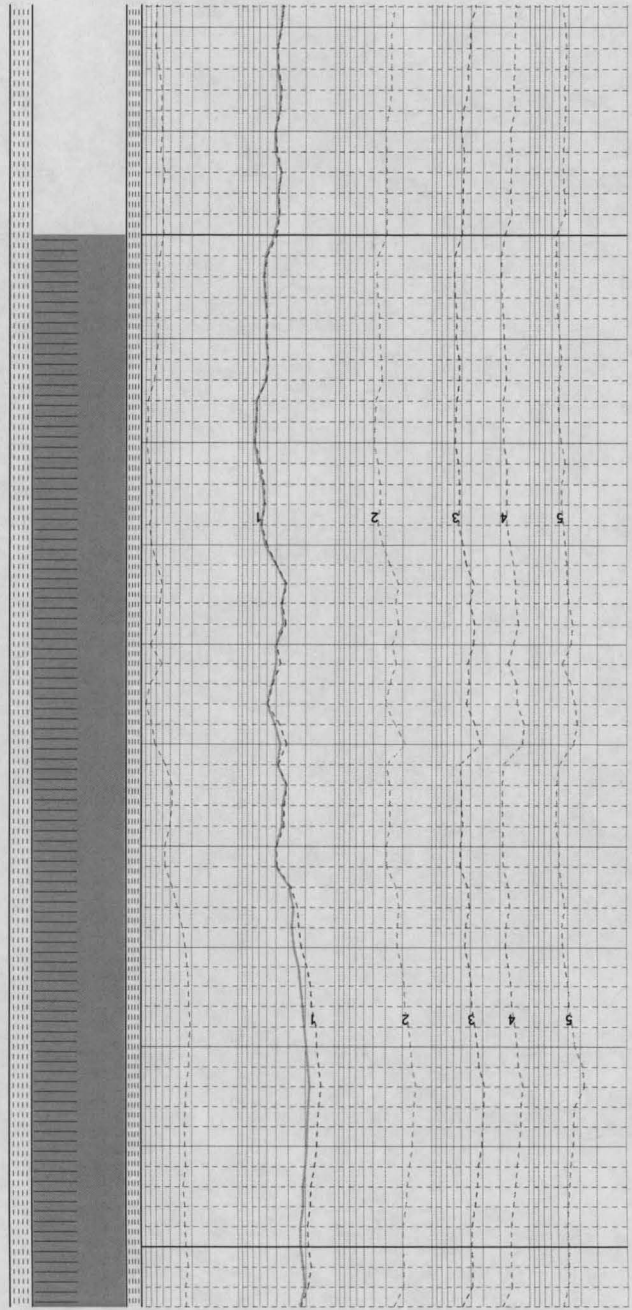
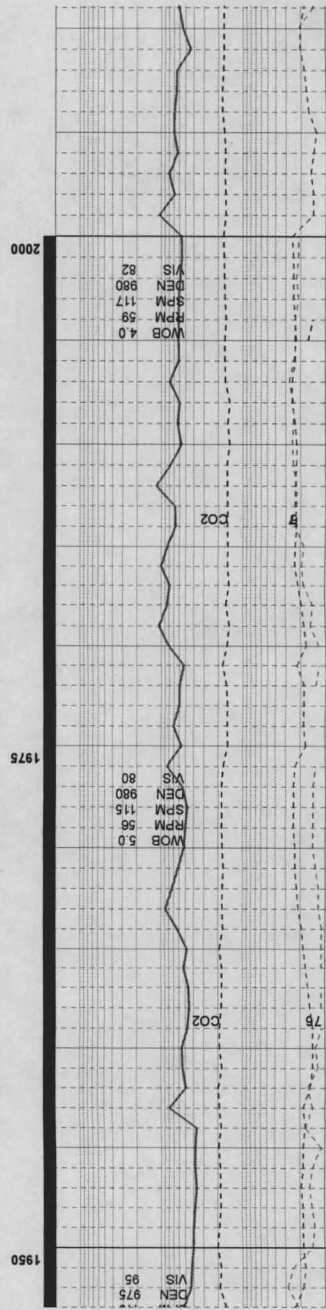
0.01 0.1 1 10 100

P  
O  
R  
%

100 p (6%)  
f (12%)

V  
I  
S  
S  
H  
O  
W  
tr  
n







$$V \overline{\quad}$$


MP 2300 Chromat

| tr | D |

DRILL FLUID  
DATE  
MISC. INFO

PENETRATION RATE (min/m)  
0.1 1 10 100

DEPTH  
TOPS  
CORE  
DST  
CSG  
FAULT

WOB 5.1  
RPM 65  
SPM 120  
DEN 970  
VIS 70

1900

WOB 5.0  
RPM 62  
SPM 117  
DEN 975  
VIS 89

1925

875

WOB 4.0  
RPM 57  
SPM 119

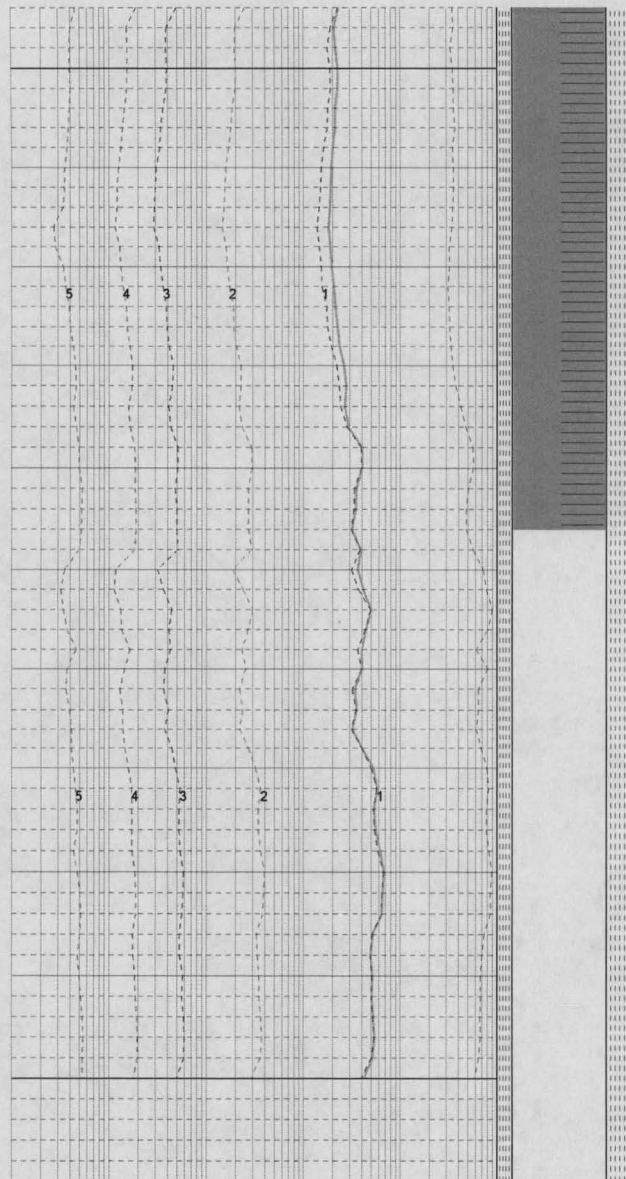
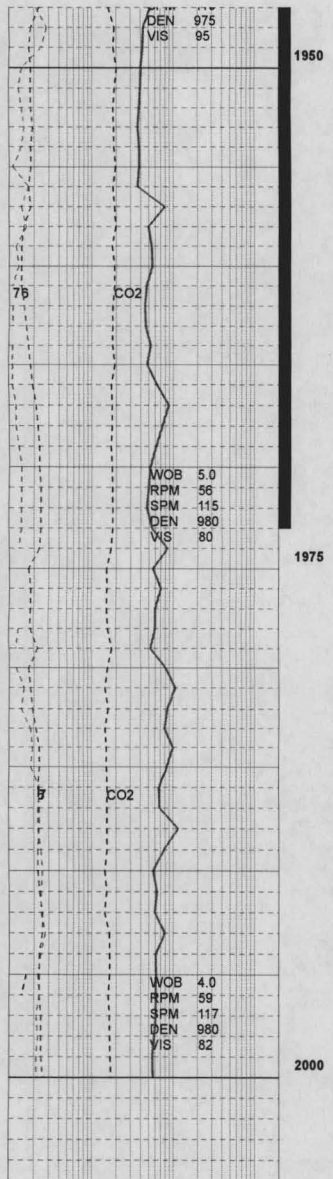
LITHO %

OIL INDICATOR C1/(C3+C4)  
0.01 0.1 1 10 100

CHROMATOGRAPH (PPM = READING X 1000)  
0.1 1 10 100 1000

p (6%)  
f (12%)  
g (18%)  
vg (24%)  
e (>24%)

SAMPLE DESCRIPTION



698491  
v6



**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

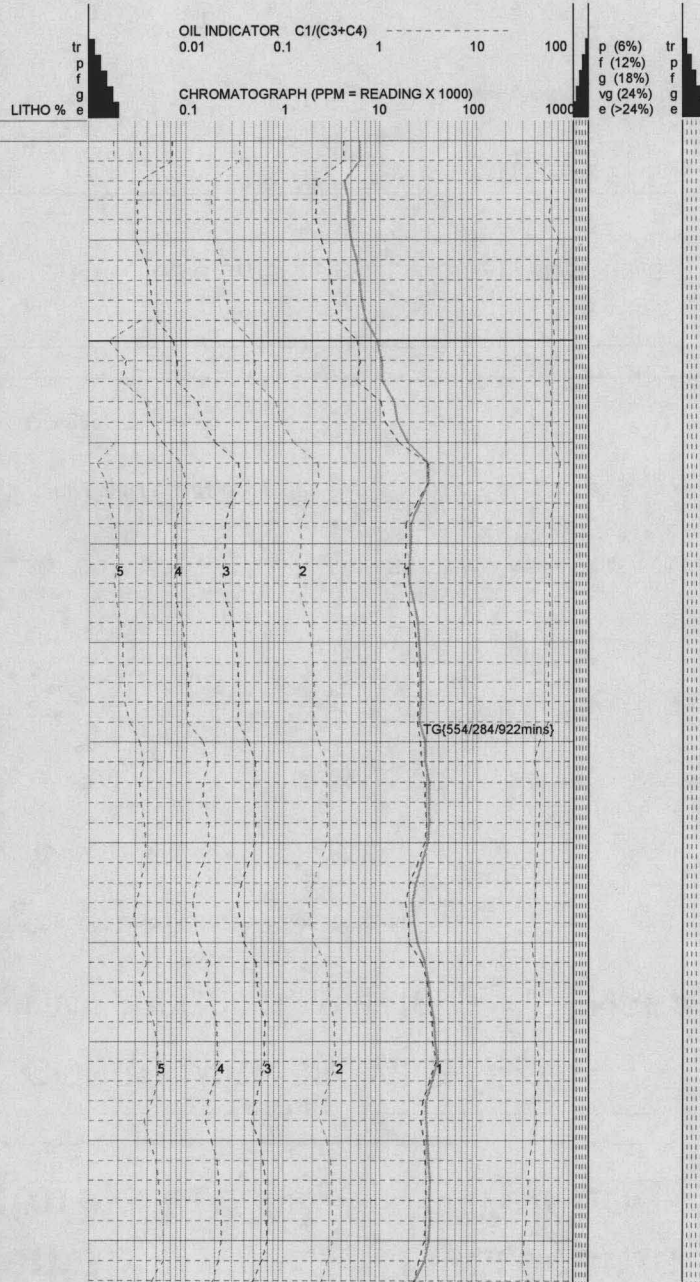
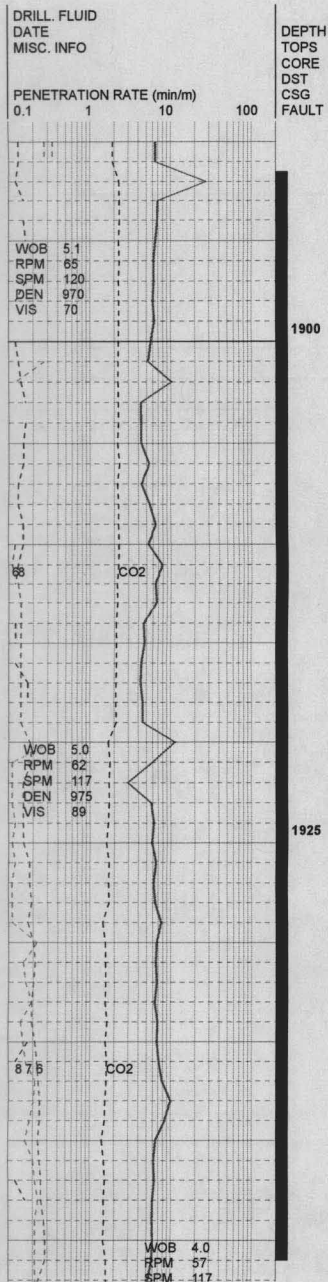
LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

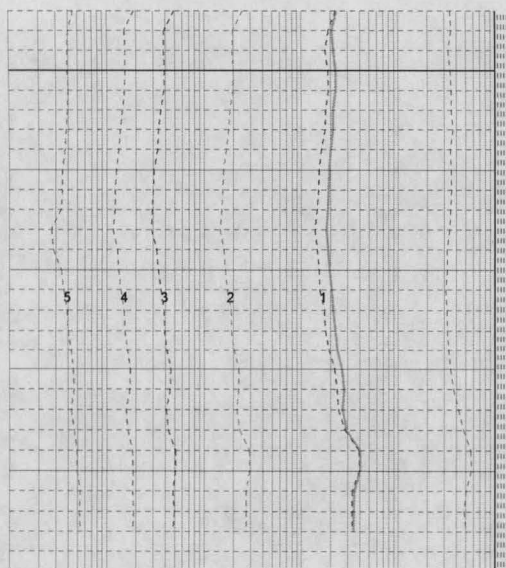
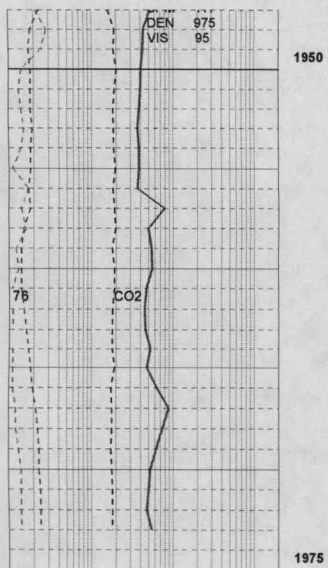
INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

| BITS<br>SURVEYS<br>DRILL. FLUID<br>DATE<br>MISC. INFO | DEPTH<br>TOPS<br>CORF | T<br>S<br>E | TOTAL GAS (Units)        |     |     |      | P<br>O<br>R<br>% | p (6%)<br>f (12%) | V<br>I<br>S<br>S<br>H<br>O<br>W |
|-------------------------------------------------------|-----------------------|-------------|--------------------------|-----|-----|------|------------------|-------------------|---------------------------------|
|                                                       |                       |             | 1                        | 10  | 100 | 1000 |                  |                   |                                 |
|                                                       |                       |             | OIL INDICATOR C1/(C3+C4) |     |     |      |                  |                   |                                 |
|                                                       |                       |             | 0.01                     | 0.1 | 1   | 10   |                  |                   |                                 |
|                                                       |                       | tr n        |                          |     |     |      |                  |                   | tr n                            |



SAMPLE DESCRIPTION





**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

698491  
VS

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

BITS  
SURVEYS  
DRILL FLUID  
DATE  
MISC. INFO

DEPTH  
TOPS  
CORF

T  
S  
E  
tr  
n

TOTAL GAS (Units)

1 10 100 1000 10000

OIL INDICATOR C1/(C3+C4)

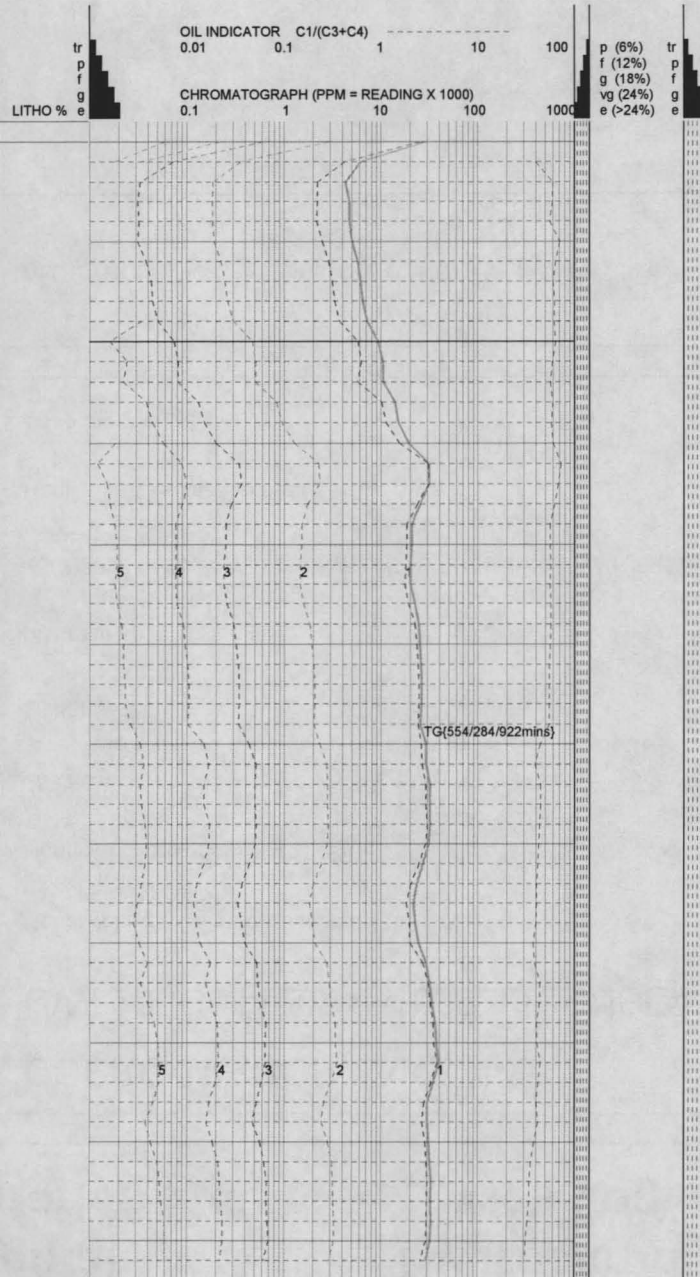
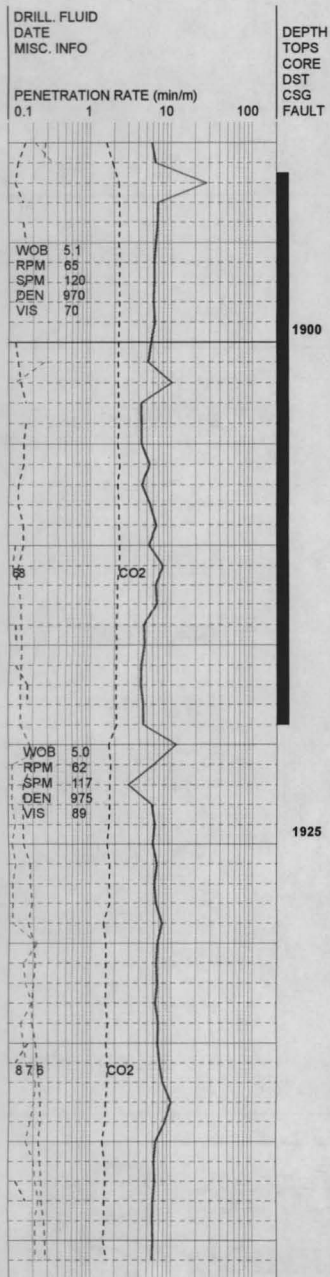
0.01 0.1 1 10 100

P  
O  
R  
%

100

p (6%)  
f (12%)

V  
I  
S  
S  
H  
O  
W  
tr  
n



SAMPLE DESCRIPTION



1950



# Hydrocarbon Well Log

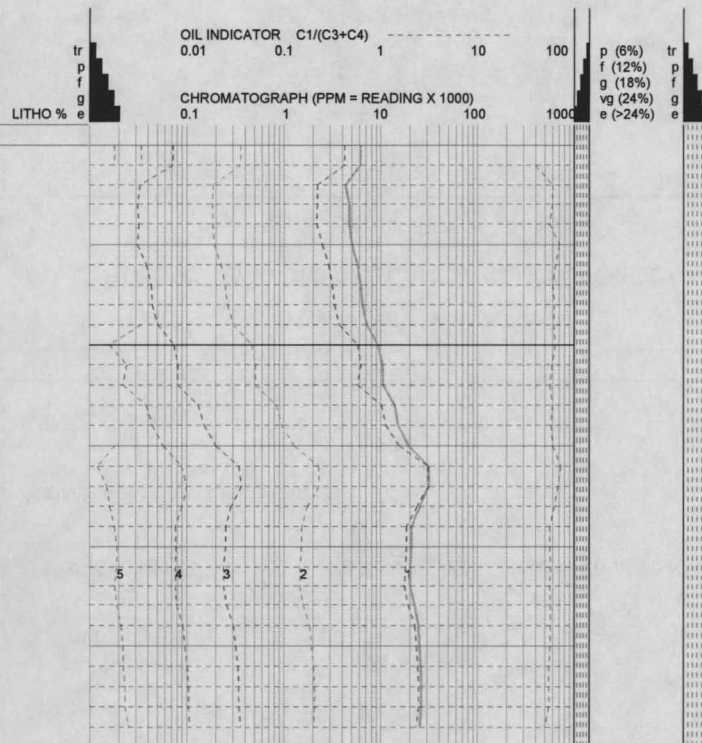
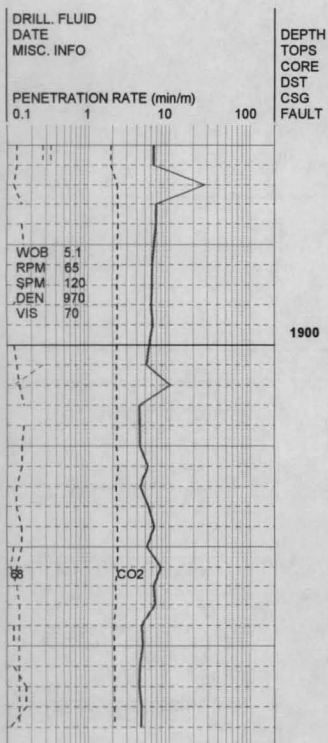
1698491

V4

|                          |                                      |                    |                          |
|--------------------------|--------------------------------------|--------------------|--------------------------|
| <u>WELL NAME:</u>        | COPRC MIRROR LAKE N-20               |                    |                          |
| <u>LOCATION:</u>         | UWI 200C011L094P1699 LICENSE# EL470  |                    |                          |
| <u>COMPANY:</u>          | Conocophillips Canada Resources Ltd. |                    |                          |
| <u>PROVINCE:</u>         | Northwest Territories                | <u>FILE:</u>       | 19342                    |
| <u>ELEVATION K.B.:</u>   | 286.50 m                             | <u>HOLE SIZE:</u>  | 222 mm from 601 m to m   |
| <u>ELEVATION G.L.:</u>   | 281.30 m                             |                    |                          |
| <u>LOGGING INTERVAL:</u> | 601 m to m                           |                    |                          |
| <u>LOGGING DATES:</u>    | 26/ 2/2013 to                        | <u>MUD SYSTEM:</u> | Invert from: 601 m to: m |
| <u>PERSONNEL:</u>        | Rahil Kiani / Fayaz Rehman           |                    |                          |
| <u>INSTRUMENTATION:</u>  | MP 2300 Chromat                      |                    |                          |

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

| BITS<br>SURVEYS<br>DRILL. FLUID<br>DATE<br>MISC. INFO | DEPTH<br>TOPS<br>CORE | T<br>S<br>E | TOTAL GAS (Units)        |     |     |      |       | P<br>O<br>R<br>%  | V<br>I<br>S<br>S<br>H<br>O<br>W |
|-------------------------------------------------------|-----------------------|-------------|--------------------------|-----|-----|------|-------|-------------------|---------------------------------|
|                                                       |                       |             | 1                        | 10  | 100 | 1000 | 10000 |                   |                                 |
|                                                       |                       |             | OIL INDICATOR C1/(C3+C4) |     |     |      |       |                   |                                 |
|                                                       |                       |             | 0.01                     | 0.1 | 1   | 10   | 100   |                   |                                 |
|                                                       |                       |             |                          |     |     |      |       | p (6%)<br>f (12%) |                                 |



SAMPLE DESCRIPTION

698491  
V3



**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

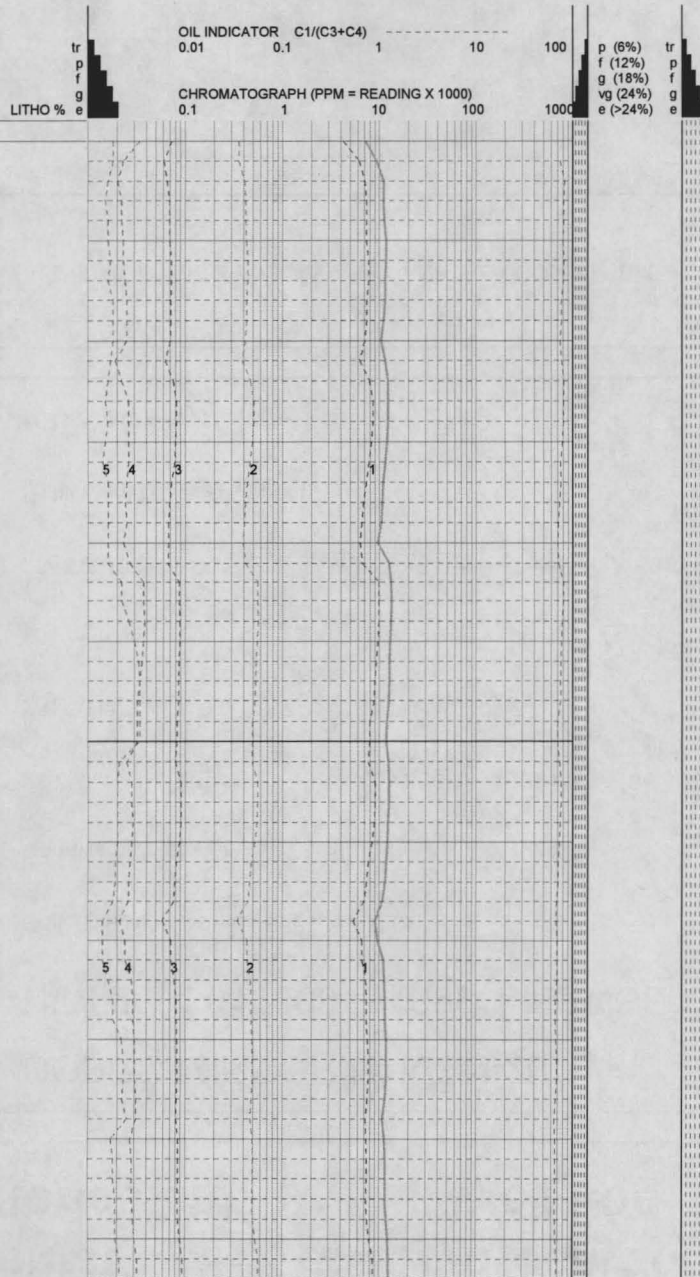
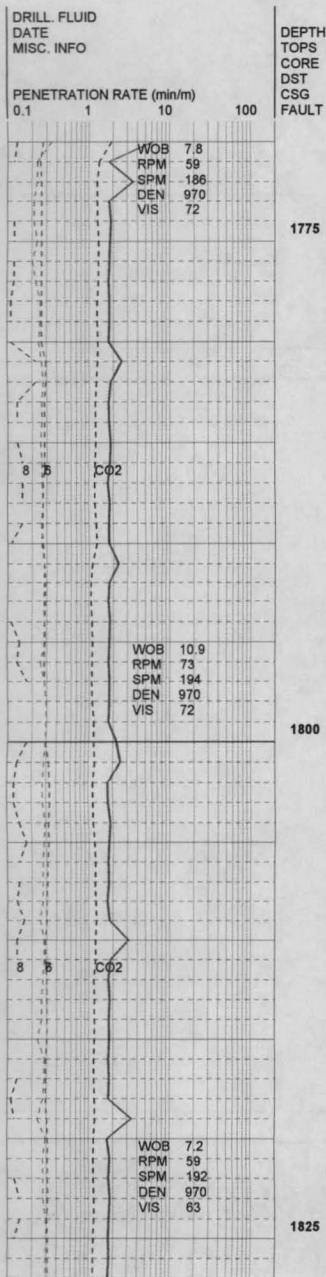
LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

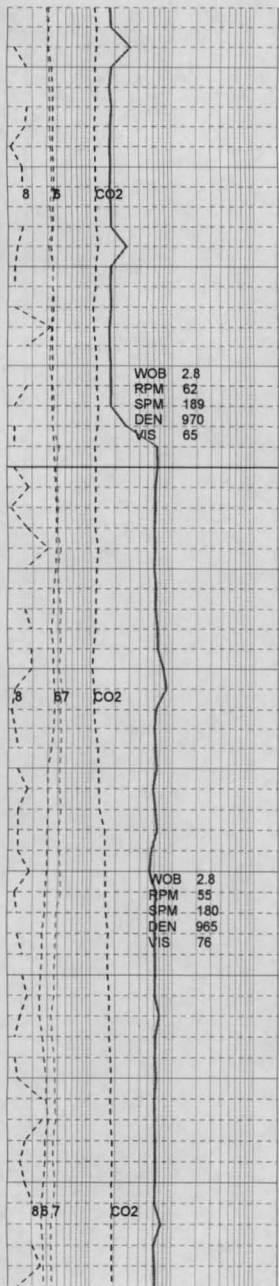
INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

| BITS<br>SURVEYS<br>DRILL. FLUID<br>DATE<br>MISC. INFO | DEPTH<br>TOPS<br>CORF | T<br>S<br>E | TOTAL GAS (Units)        |     |     |      |       | P<br>O<br>R<br>%  | V<br>I<br>S<br>S<br>H<br>O<br>W |
|-------------------------------------------------------|-----------------------|-------------|--------------------------|-----|-----|------|-------|-------------------|---------------------------------|
|                                                       |                       |             | 1                        | 10  | 100 | 1000 | 10000 |                   |                                 |
|                                                       |                       |             | OIL INDICATOR C1/(C3+C4) |     |     |      |       |                   |                                 |
|                                                       |                       |             | 0.01                     | 0.1 | 1   | 10   | 100   | p (6%)<br>f (12%) |                                 |

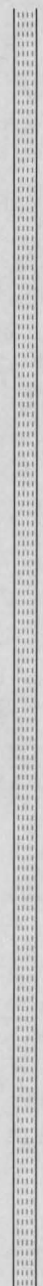
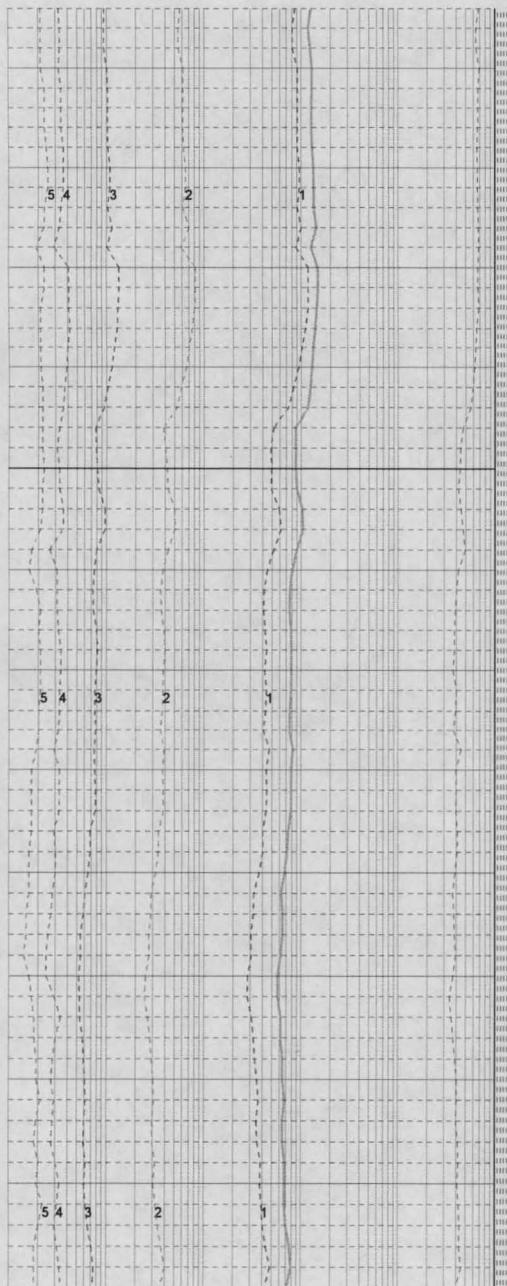


SAMPLE DESCRIPTION



1850

1875



698491  
v2



**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

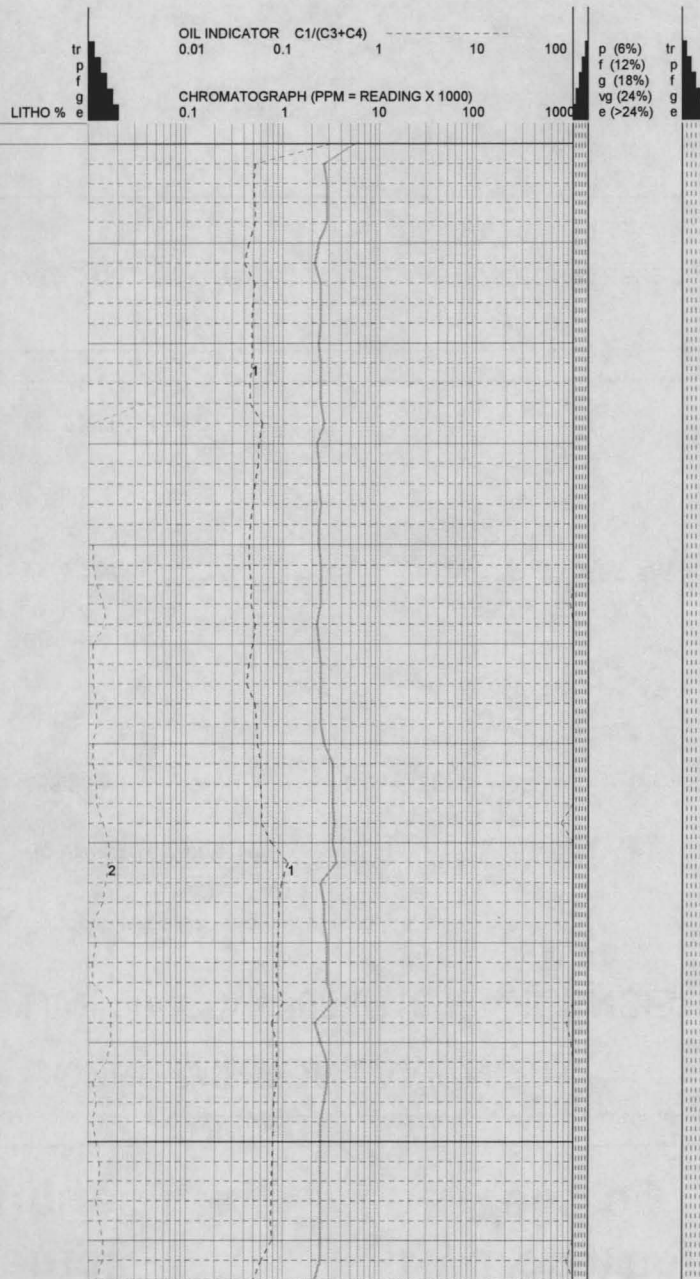
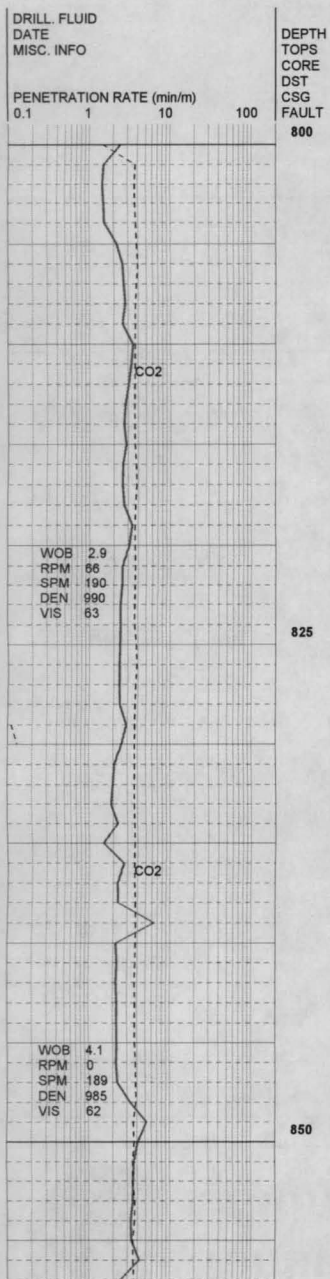
LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

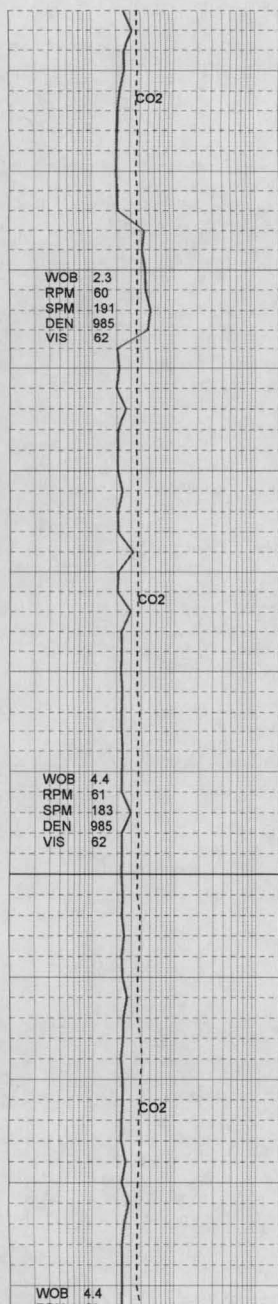
INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

| BITS<br>SURVEYS<br>DRILL. FLUID<br>DATE<br>MISC. INFO | DEPTH<br>TOPS<br>CORF | T<br>S<br>E | TOTAL GAS (Units)        |     |     |      | P<br>O<br>R<br>% | p<br>f<br>(6%)<br>f (12%) | V<br>I<br>S<br>H<br>O<br>W |
|-------------------------------------------------------|-----------------------|-------------|--------------------------|-----|-----|------|------------------|---------------------------|----------------------------|
|                                                       |                       |             | 1                        | 10  | 100 | 1000 |                  |                           |                            |
|                                                       |                       | tr<br>n     | OIL INDICATOR C1/(C3+C4) |     |     |      |                  |                           | tr<br>n                    |
|                                                       |                       |             | 0.01                     | 0.1 | 1   | 10   |                  |                           |                            |

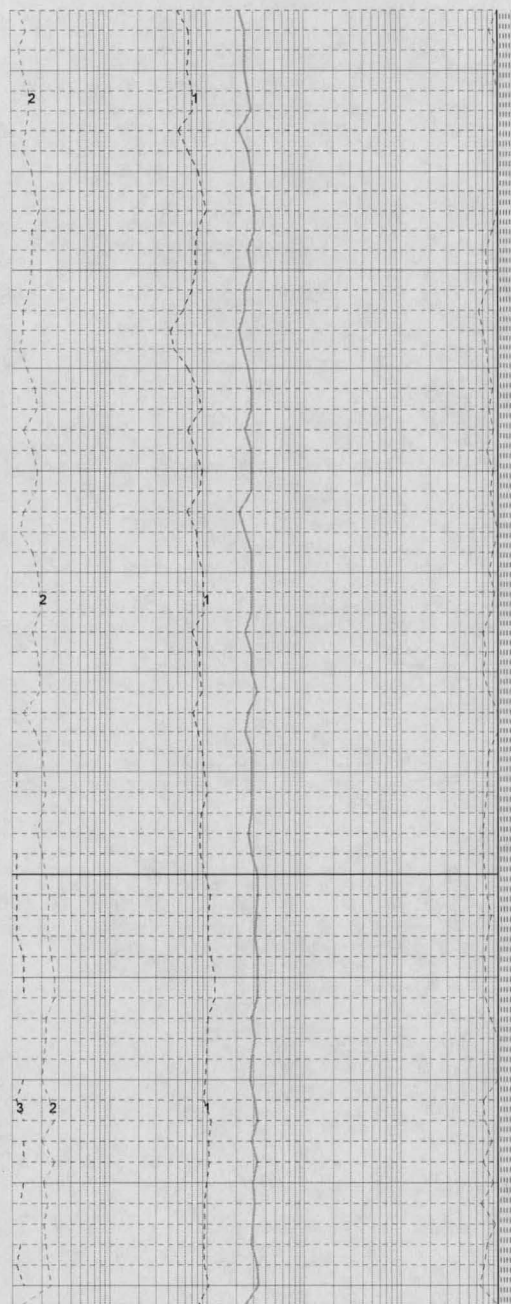


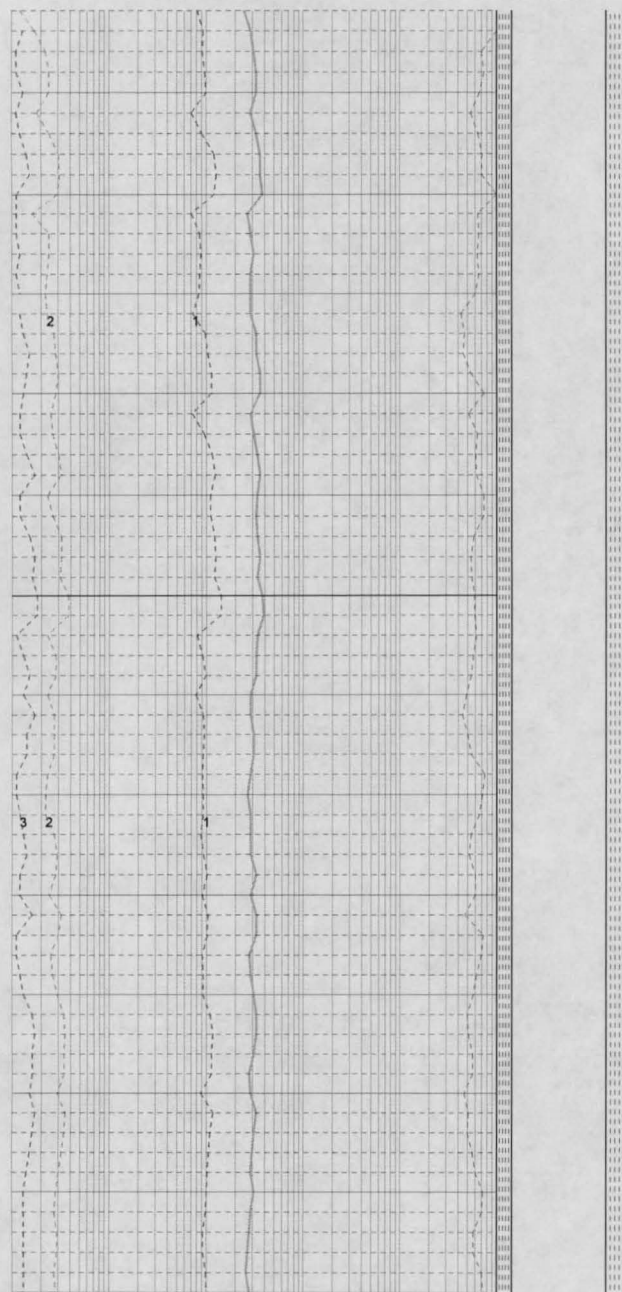
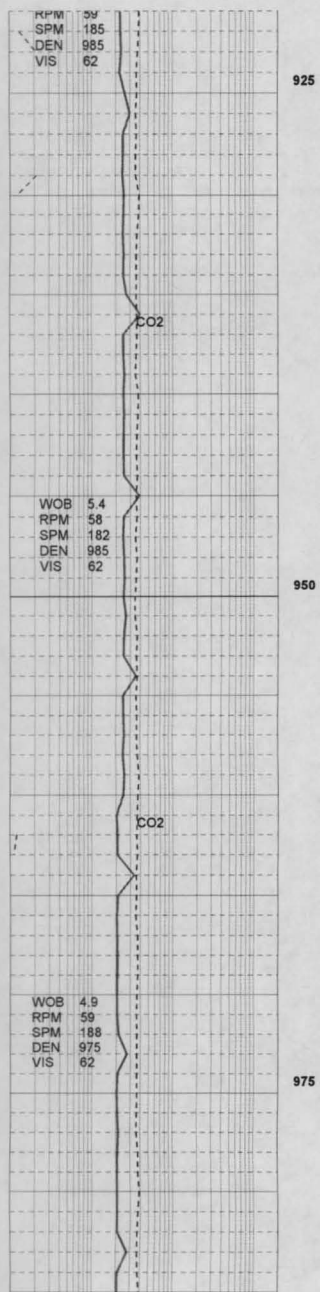
SAMPLE DESCRIPTION



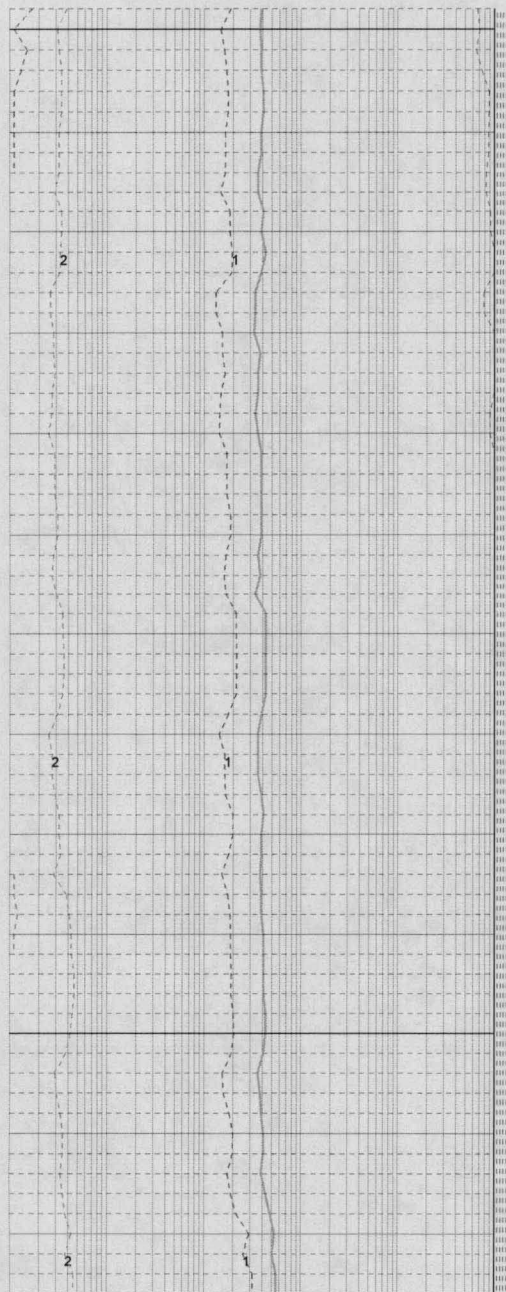
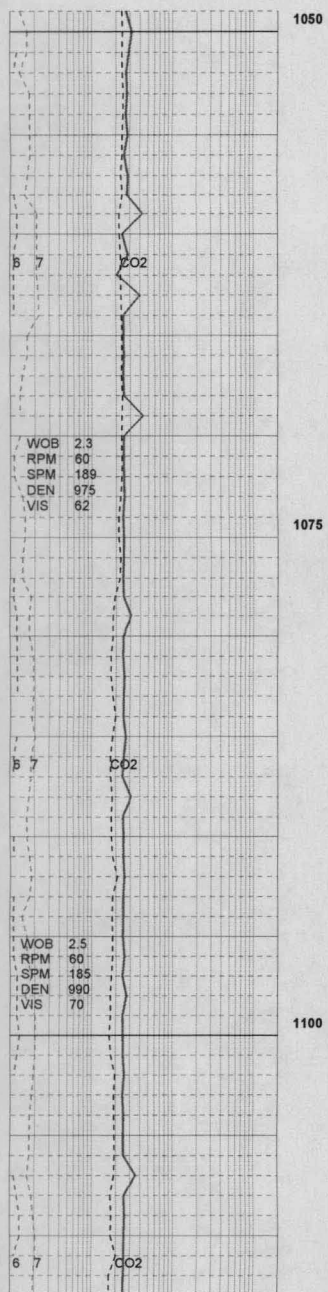
875

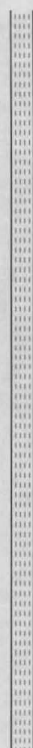
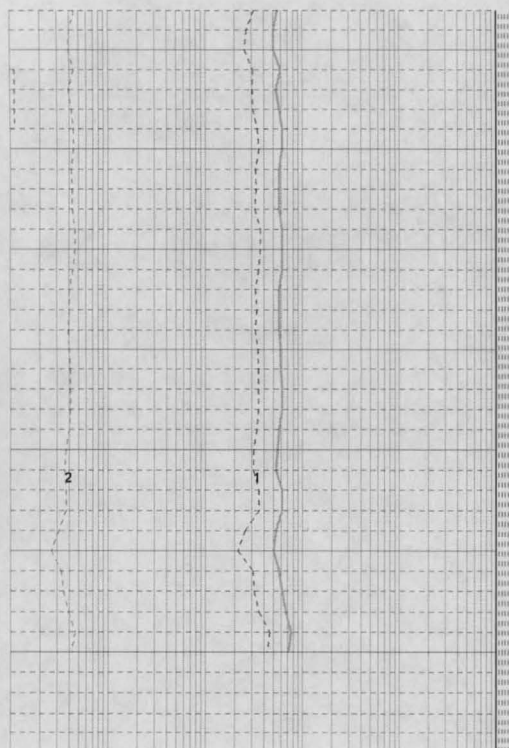
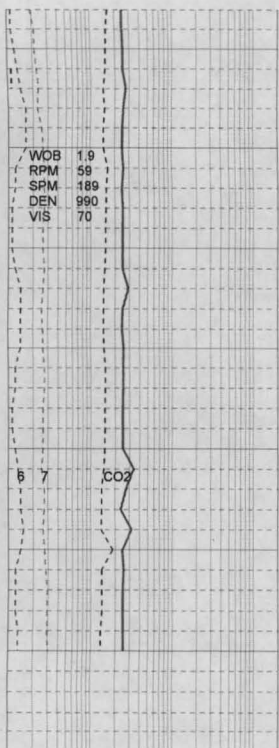
900











DM 698491

WID 2079



**Continental  
Laboratories Ltd.**

## Hydrocarbon Well Log

WELL NAME: COPRC MIRROR LAKE N-20

LOCATION: UWI 200C011L094P1699 LICENSE# EL470

COMPANY: Conocophillips Canada Resources Ltd.

PROVINCE: Northwest Territories FILE: 19342

ELEVATION K.B.: 286.50 m HOLE SIZE: 222 mm from 601 m to m

ELEVATION G.L.: 281.30 m

LOGGING INTERVAL: 601 m to m

LOGGING DATES: 26/ 2/2013 to MUD SYSTEM: Invert from: 601 m to: m

PERSONNEL: Rahil Kiani / Fayaz Rehman

INSTRUMENTATION: MP 2300 Chromat

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

| BITS<br>SURVEYS<br>DRILL. FLUID<br>DATE<br>MISC. INFO | DEPTH<br>TOPS<br>CORF | T<br>S<br>E | TOTAL GAS (Units)        |     |     |      |       | P<br>O<br>R<br>%  | V<br>I<br>S<br>S<br>H<br>O<br>W |
|-------------------------------------------------------|-----------------------|-------------|--------------------------|-----|-----|------|-------|-------------------|---------------------------------|
|                                                       |                       |             | 1                        | 10  | 100 | 1000 | 10000 |                   |                                 |
|                                                       |                       |             | OIL INDICATOR C1/(C3+C4) |     |     |      |       |                   |                                 |
|                                                       |                       |             | 0.01                     | 0.1 | 1   | 10   | 100   | p (6%)<br>f (12%) |                                 |

DRILL. FLUID  
DATE  
MISC. INFO

DEPTH  
TOPS  
CORE  
DST  
CSG  
FAULT

PENETRATION RATE (min/m)  
0.1 1 10 100

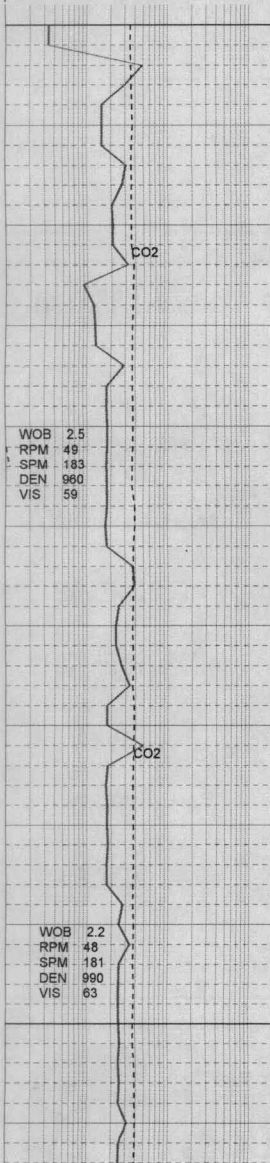
LITHO %  
e

OIL INDICATOR C1/(C3+C4)  
0.01 0.1 1 10 100

CHROMATOGRAPH (PPM = READING X 1000)  
0.1 1 10 100 1000

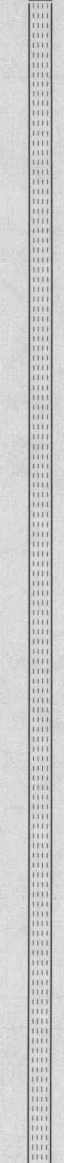
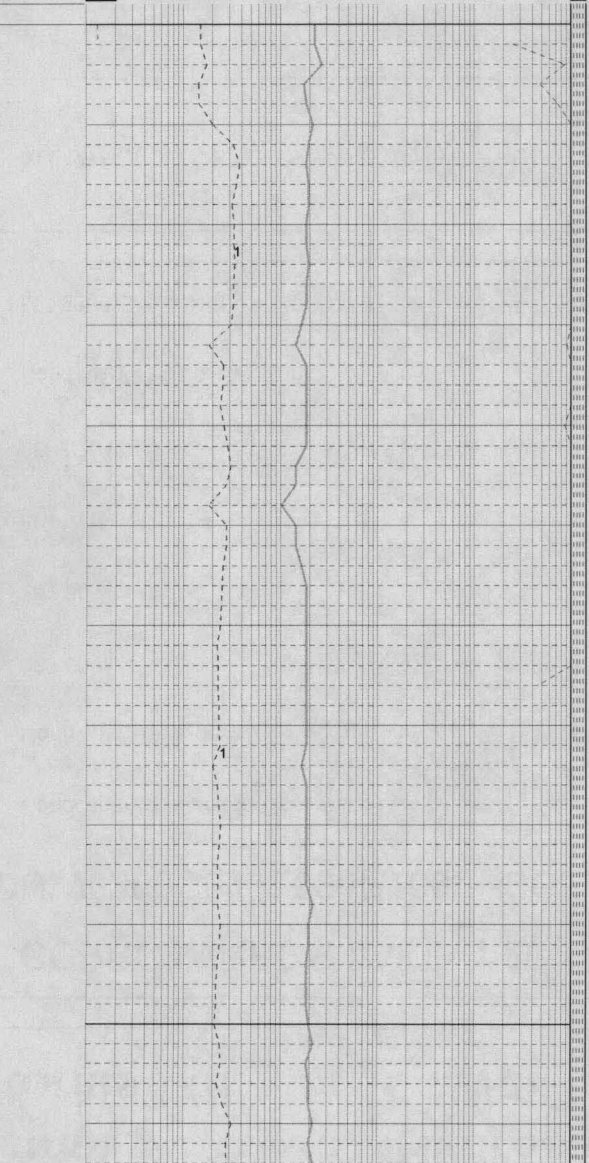
p (6%)  
f (12%)  
g (18%)  
vg (24%)  
e (>24%)

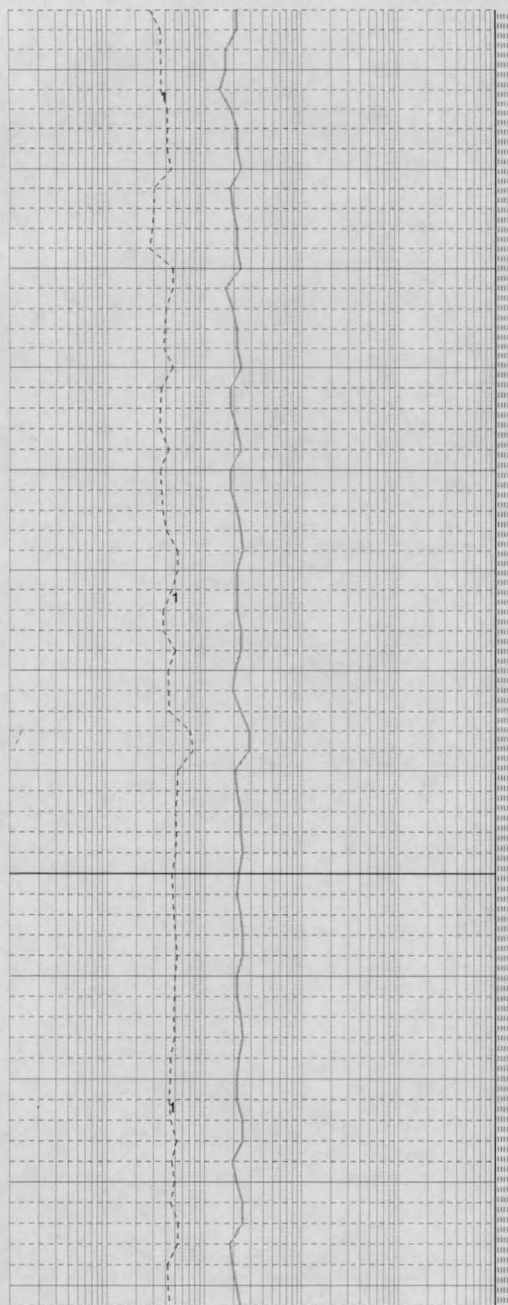
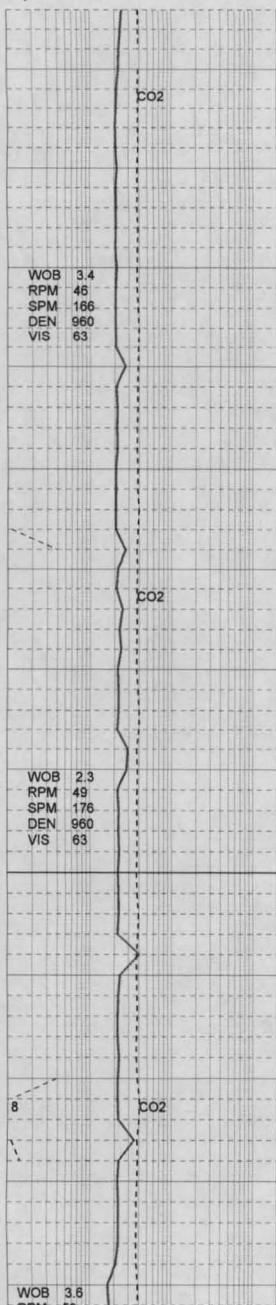
SAMPLE DESCRIPTION

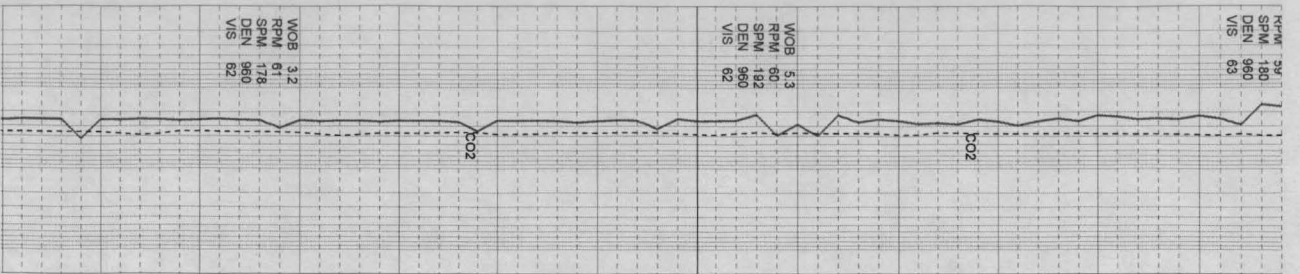


625

650



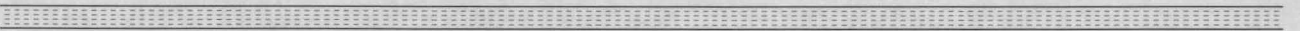
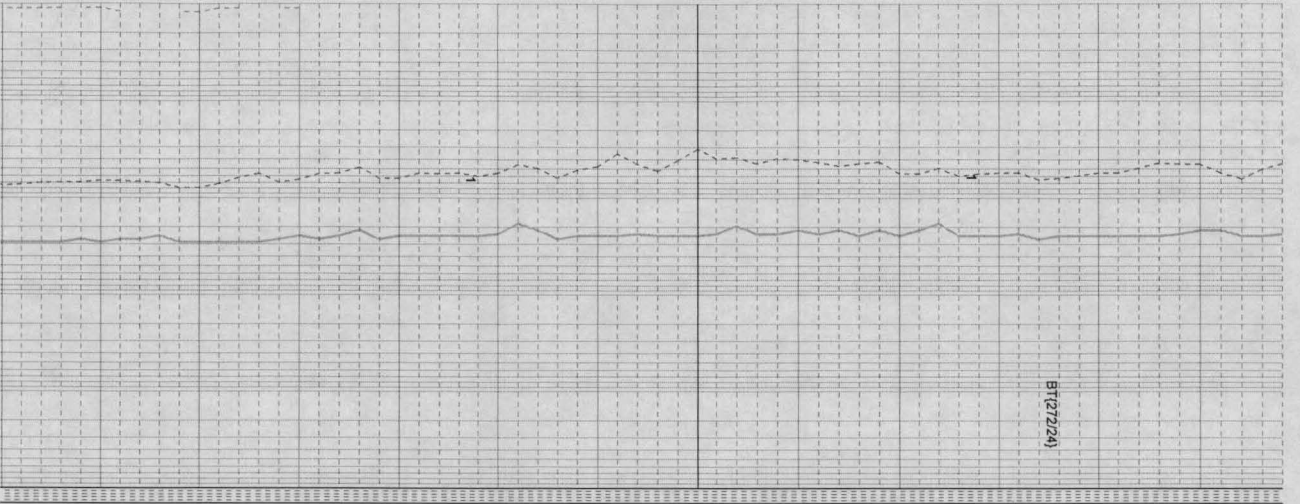


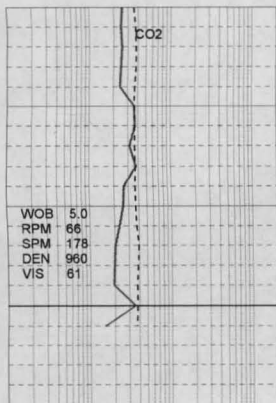


725

750

775





800

