



Via E-Mail/Mail

March 9, 2005

Northwest Territories Water Board
P.O. Box 1326
Yellowknife, NT X1A 2N9

Attention: **Chair, Northwest Territories Water Board**

**Re: Annual Report to 31 December, 2004
License N7L1-1797**

Enclosed please find the annual report for the Umiak N16 drilling program, as required under the Part B (1) of water license N7L1-1797.

If you have any questions or comments, please do not hesitate to contact me. A hardcopy of this report will also be sent to you by mail.

Regards,

A handwritten signature in blue ink, appearing to read "D. Clayton".

Deena Clayton, Environmental Advisor

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cc. Kevin Glowa, Inspector

**ANNUAL REPORT FOR THE ENCANA CORPORATION
BURNT LAKE (UMIAK N-16) DRILLING PROGRAM 2004**



Submitted to:

Northwest Territories Water Board
P.O. Box 1500, Goga Cho Building
Yellowknife, NT X1A 2R3

Water License: N7L1-1797

Submitted by: Deena Clayton, Environmental Advisor, EnCana Corporation

Year reported: 2004

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1.0 INTRODUCTION

The information in this report is as required under PART B of the Northwest Territories Water Board License N7L1-1797 for the EnCana Corporation Burnt Lake (Umiak N-16) Drilling Program. The report details activities to December 31st, 2004.

2.0 TOTAL QUANTITIES OF FRESH WATER OBTAINED FROM EACH SOURCE

Water sources are identified on Figure 1. Monthly and daily quantities of water withdrawn for the program are as follows:

TABLE 1 WATER WITHDRAWAL JANUARY 2004

Date	Mackenzie River	Nesbit Lake	Lake 5	Lake 4	Daily Withdrawal (m ³)
01-Jan		120	340		460
02-Jan			390		390
03-Jan	120		240		360
04-Jan				249	249
05-Jan					0
06-Jan					0
07-Jan	435		300	300	1035
08-Jan	390	240	30	671	1331
09-Jan	150			700	850
10-Jan	480			897	1377
11-Jan	480			1454	1934
12-Jan		105		2173	2278
13-Jan				2225	2225
14-Jan				2178	2178
15-Jan				2244	2244
16-Jan				1935	1935
17-Jan				1800	1800
18-Jan				990	990
19-Jan				1470	1470
20-Jan				1515	1515
21-Jan				1870	1870
22-Jan				1588	1588
23-Jan	150			1609	1759
24-Jan				1926	1926
25-Jan	180		658	950	1788
26-Jan	45		1691		1736
27-Jan			1451		1451
28-Jan			1201		1201
29-Jan			1095		1095
30-Jan			60		60
31-Jan			403		403
Monthly Total	2430	465	7859	28744	39498

TABLE 2 WATER WITHDRAWAL FEBRUARY 2004

Date	Mackenzie River	Nesbit Lake	Lake 5	Daily Withdrawal (m ³)
01-Feb			492	492
02-Feb			706	706
03-Feb			631	631
04-Feb			471	471
05-Feb			420	420
06-Feb			255	255
07-Feb			195	195
08-Feb			225	225
09-Feb			300	300
10-Feb			210	210
11-Feb			135	135
12-Feb	135		105	240
13-Feb	90		105	195
14-Feb	135		90	225
15-Feb	135		90	225
16-Feb	105		90	195
17-Feb	135		120	255
18-Feb	75		105	180
19-Feb	90		120	210
20-Feb	135		135	270
21-Feb	165		165	330
22-Feb			180	180
23-Feb		135	135	270
24-Feb		195	195	390
25-Feb		180	90	270
26-Feb	75	210	210	495
27-Feb	105	45	105	255
28-Feb		120	120	240
29-Feb		150	75	225
Monthly Total	1380	1035	6275	8690

TABLE 3 WATER WITHDRAWAL MARCH 2004

Date	Nesbit Lake	Lake 5	Lake 2	Daily Withdrawal (m ³)
01-Mar	150	45		195
02-Mar	90	150		240
03-Mar	165	150		315
04-Mar	15	204		219
05-Mar	45	191		236
06-Mar		114		114
07-Mar		270		270
08-Mar	15	285		300
09-Mar		285		285
10-Mar	114	130		244
11-Mar	62	90		152
12-Mar	90	75		165
13-Mar	90	165		255
14-Mar	182	45		227
15-Mar	105	121		226
16-Mar	84	90		174
17-Mar	15	75	45	135
18-Mar	90	135	15	240
19-Mar	120	30	120	270
20-Mar	105	90	75	270
21-Mar	135	164	120	419
22-Mar			93	93
23-Mar			123	123
24-Mar		90	127	217
25-Mar		180	134	314
26-Mar	225	45	30	300
27-Mar	300	120	30	450
28-Mar	270	45	30	345
29-Mar	135	105	30	270
30-Mar	75	225	45	345
31-Mar		135	15	150
Monthly Total	2677	3849	1032	7558

TABLE 4 WATER WITHDRAWAL APRIL 2004

Date	Mackenzie River	Nesbit Lake	Lake 5	Lake 2	Daily Withdrawal (m ³)
01-Apr			165	30	195
02-Apr		45	285	15	345
03-Apr		105	180	30	315
04-Apr		75	45	30	150
05-Apr		180	150	15	345
06-Apr		120	120	30	270
07-Apr		105	105	15	225
08-Apr		165	165	30	360
09-Apr		120	45	45	210
10-Apr	135	30	150	15	330
11-Apr	90	60	15	120	285
12-Apr	150	30	120	15	315
13-Apr	195	23	165	30	413
14-Apr	165	15	165	15	360
15-Apr		225	90	15	330
16-Apr		180	195	15	390
17-Apr		165	195	15	375
18-Apr		150	210		360
19-Apr	135	30	150		315
20-Apr	90		30	30	150
21-Apr	210	15	150		375
22-Apr	30	30	60		120
23-Apr	75	105	105		285
24-Apr		215	60		275
25-Apr		465	135		600
26-Apr		255	120		375
27-Apr		240	135		375
28-Apr		495			495
29-Apr		255			255
30-Apr					
Monthly Total	1275	3898	3510	510	9193

3.0 TOTAL QUANTITIES OF EACH AND ALL WASTE DISCHARGED

The wastewater treatment system was operational for 79 days, from 8 February to 24 April, 2004. During that time the following flows were recorded at the plant:

- Total flow through the system 1156.07 m³
- Average daily flow 13.81 m³/day

Of the total flow, 1091.07 m³ of treated effluent was discharged to surface locations along the access route, as directed and approved by the Indian and Northern Affairs Canada Inspector. A total of 65 m³ was trucked and disposed of in a municipal facility. Wastewater was directed to the municipal facility when sample results did not meet the maximum average concentrations (MAC) specified in the license. Wastewater was trucked at the beginning of the program, when the plant was being commissioned and briefly in early April. A brief mechanical failure and sampling errors were identified as the primary reason samples exceeded the MAC.

The volume of drilling waste deposited in the sump is estimated to be 4500 m³. The sump location is identified on Figure 1. Waste volumes were greater than expected because unpredictably large volumes of sand were encountered while drilling the upper sections of the well. The sand washed within the well bore and greater volumes of cuttings were therefore brought to the surface.

4.0 NAMES AND QUANTITIES OF ALL DRILLING MUD ADDITIVES USED

The names and quantities of drilling mud additives are as follows:

TABLE 5 DRILLING MUD PRODUCT AND QUANTITIES USED

Product Name	Quantity Used (kg)
Alkapam 1703D	2,340
Alum Sulfate	125
Alcomer 74P	60
Barite	59,180
Bicarbonate	1702
Calcium Carbonate	15000
Cellophane	114
Caustic Potash	908
Caustic Soda	750
Citric Acid	125
KCL, sacks	101,075
KCL, bulk	64,500
Kelzan XCD	7,900
Lime	240
Percol 728	25
Prima Seal	54.6
Q'Stop Fine	194
Sawdust	2790
Soda Ash	1,250
Trupac LV	1175
Caustic Soda	385.9
Natural Gel	11,600

5.0 DETAILS OF WORK COMPLETED

Through January 2004, crews completed construction of an overland access route from the east channel of the Mackenzie River (east of Nesbit Lake) to the N16 drilling location. An ice pad was constructed at the N16 drilling location and a second ice pad was constructed for the camp adjacent to Lake 4. Because of the topography at the N16 location, the camp and rig had to be located at separate sites.

EnCana intended to construct a sump immediately adjacent to the rig site. Ground penetrating radar was used in the summer of 2003 to survey the location and the survey indicated a good potential sump location. However, while drilling the sump site, prior to placing dynamite charges, ground-truthing indicated a massive ice lens and EnCana determined it was not a good sump location. An alternate

location was identified north of Nesbit Lake (Figure 1). Shot hole drilling revealed a better soil matrix, without the presence of ice lenses. In conjunction with the INAC Inspector, it was decided to move the sump to this location. Sump monitoring conducted in 2004 was reported to the NWT Water Board on 22 December 2004.

Drilling at the N16 location began in February 2004. The well was drilled to over 3000 m and suspended. All equipment was de-mobilized from the site in late April. Testing of the well will be completed early in 2005.

6.0 DETAILS OF SUMP RESTORATION

Material excavated from the sump was stored on an ice pad adjacent to the sump. The drilling waste was placed in shallow lifts (<1 m) using a D6 Cat, watered, packed and allowed to solidly freeze. With permission from the Inspector, the sump was backfilled and capped with the excavated material in late April. The backfill and cap were tracked using a D6 and D8 Cat to help compact the frozen fill and minimize future settling. The fill extended beyond the edge of the sump (~2 m on all sides) and the cap was approximately 1.5 m above the surrounding ground level. Thermistors were installed on 30 April 2004. The sump was seeded on 4 May 2004 with an indigenous seed mix that included: *Agropyron violaceum*, *Deschampsia caespitosa*, *Festuca szximontana*, *Festuca ovina*, *Poa alplina* and *Agrostis scabra*.

7.0 SPILLS AND UNAUTHORIZED DISCHARGES

Minor spills were logged and reported to the INAC Inspector monthly. Three spills were reported to the NWT Spill Report Line, as listed below.

TABLE 6 REPORTABLE SPILLS

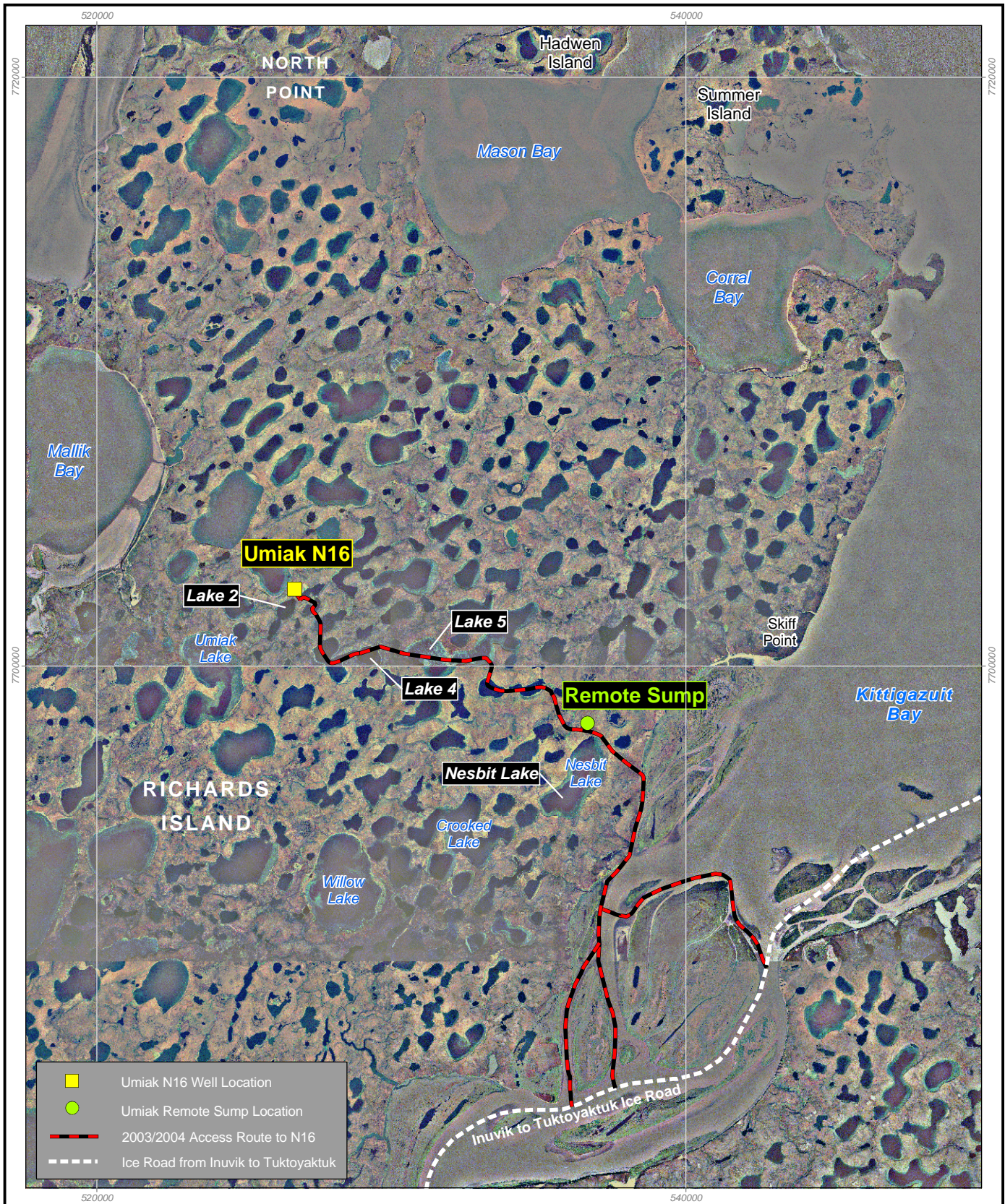
Date (2004)	Product	Quantity (approx.)	Action
January 19	Hydraulic Oil	20 L	Snow and ice immediately scraped up for disposal
February 28	Calcium Chloride	150 L	Snow and ice immediately scraped up for disposal
April 20	Cement Retarder (D13)	200L	Snow and ice scraped up for disposal after rig removed from location

8.0 RESULTS FROM MONITORING PROGRAMS

An annual monitoring report for the Umiak N16 sump was submitted to the NWT Water Board in December 2004.

**9.0 ANY OTHER DETAILS ON WATER USE OR WASTE DISPOSAL REQUESTED BY
THE BOARD**

To date, no additional requests have been received.



UMIAK N16 2004 SUMMARY REPORT

Umiak N16 Well Location and Access Route for 2003/2004

FIGURE PREPARED BY:



SCALE 1:185,000



DRAFT DATE

03/March/2005

REVISION DATE

07/March/2005

DRAWN
AO

CHECKED
TB

APPROVED
NC

FIGURE NO.

1

REFERENCES:

Air Photo Mosaic: 1:60,000 TARIN Resource Service Ltd.