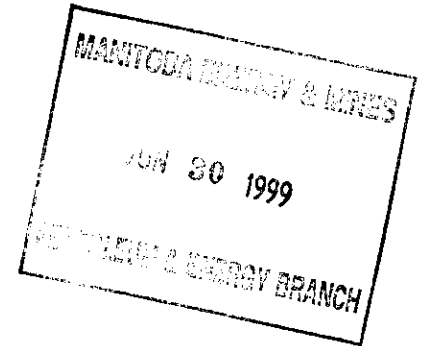




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June 28, 1999

Manitoba Energy and Mines  
Petroleum Branch  
360 - 1395 Ellice Avenue  
Winnipeg, MB R3G 0G3



Attention: Mr. J. Fox, P.Eng.  
Chief Petroleum Engineer

Dear John,

RE: Cromer Unit No. 1  
Progress Report January 1, 1998 - May 31, 1999

Please find attached the referenced document outlining the 1998/1999 production performance of the Cromer Unit No. 1 pressure maintenance operation.

Should you have any questions, please contact me at 934-5853.

Yours truly,

TUNDRA OIL AND GAS LTD.

A handwritten signature in cursive script, which appears to read "G. Czyzewski".

George Czyzewski, P.Eng.  
General Manager

**TUNDRA OIL AND GAS LTD.**



**CROMER UNIT NO. 1**

**PROGRESS REPORT**

**January 1, 1998 - May 31, 1999**

**JUNE, 1999**

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**Cromer Unit No.1**

**INTRODUCTION**

Cromer Unit No.1 was unitized in June, 1998 for the purposes of pressure maintenance. Water injection commenced during December, 1998 through well 11-14-9-28. Table No.2 outlines the Unit well list. The subject Progress Report covers the operating period of January 1, 1998 thru to May 31, 1999.

**DISCUSSION**

**1. Production Performance**

Oil production averaged 14.5 m3/day during the month of January, 1998 and declined to 10.7 m3/day by December 31, 1998. The annual decline in oil production for the aforementioned period was 26%. Similarly, oil production averaged 9.4 m3/day during January, 1999 and increased to 10.1 m3/day by April 30, 1999. Tables No. 4 and 5 summarize the 1998 and 1999 production statistics, respectively of the Unit. Attachment No.1 outlines the numerical production history of the Unit.

Unit water-cut at the beginning of 1998 was 22% and by year end increased to 34%. Average monthly water-cut in the Unit during 1998 was 21%. Similarly, water-cut averaged 38% during January, 1999 and declined to 23% by April, 1999. Attachments No.3 and No.4 summarize the 1998 and 1999 production data, respectively of the individual wells in the Unit. Figure No.2 outlines the historical production of the Unit.

Remaining recoverable oil reserves of 17,092 m3 (107.5 M STB) are estimated from the Unit at 99.04.30. This will represent an ultimate oil recovery of 44,147 m3 or 25.3% of the total oil-in-place. Since waterflood operations only commenced in late December, 1998, it is expected that after more water injection and additional water injectors, that there will be further improvement in ultimate oil recovery. Figure No.2 outlines the ultimate oil recovery forecasted from the Unit at 99.04.30.

**2. Reserves**

The total oil-in-place in the Unit in the Bakken formation is estimated at 174,274 m3 (1.1 MM STB). The oil-in-place estimates of the individual wells are outlined in Table No.3.

### 3. Recovery Profiles

Current oil recovery to 99.04.30 is estimated at 15.5% of the oil-in-place. Ultimate oil recovery in the Unit at 99.04.30 is estimated at 25.3% of the oil-in-place. Since it is early in the life of the waterflood operation, it is expected that a higher ultimate oil recovery will be achieved as the waterflood scheme matures. Table No.6 outlines the current and ultimate oil recoveries of the individual wells in the Unit. Attachment No.2 outlines the individual well ultimate oil recovery prediction plots.

### 4. Injector Performance

Figure No.3 outlines the wellhead injection pressures vs cumulative injection volume for injection well 11-14-9-28. From the beginning of injection, wellhead injection pressures will continue to increase over the cumulative injection period. This is a characteristic feature of a Bakken waterflood. This performance is attributable to low matrix permeabilities associated with the Bakken formation. As a result, high injection pressures will result due to the low mobility ratio of the Bakken formation. This phenomenon was identified from relative permeability testing. Therefore, during a pressure maintenance operation in the Bakken formation, as reservoir fillup is approached, it will become progressively more difficult to maintain injectivity. Further well stimulation or refracturing (based on actual programs) will not correct this condition over the long term.

A Hall Plot was also prepared for injection well 11-14-9-28 to confirm that injectivity cannot be improved with further remedial programs. Figure No.4 outlines the Hall Plot for injector 11-14-9-28. Although it is still early in the injection life of 11-14, the initial injection profile is characteristic of a Bakken waterflood. Basically, there will be no significant change in the slope of the injection profile during the majority of the injection history. Table No.11 outlines the injection data that was used to derive the Hall Plot for injector 11-14-9-28.

In summary, total injection during 1998 was 132 m3. Cumulative injection to May 31, 1999 was 1,881 m3. The average annual daily injection rate during the first 5 months of 1999 was 12 m3/day. Tables No.7 and No.8 summarize the injection data for 1998 and 1999, respectively. Attachments No. 5 and No.6 outline the historical injection plot and injection data, respectively for well 11-14-9-28.

## **5. Voidage Replacement**

Tables No.9 and No.10 outline the voidage calculations for the Unit during 1998 and 1999, respectively. Based on the first 5 months of injection during 1999, a voidage replacement ratio of 0.86 has been achieved. Injection rates will be increased during the balance of the year to achieve a voidage replacement ratio of 1.0 in 1999. Cumulative voidage replacement ratio of 0.053 has been achieved in the Unit to 99.05.31.

## **6. Individual Well Performance**

A review of the production performance of each of the producing wells is presented here-after. The analysis is referenced to the wells outlined in Attachments No.2, No.3, and No.4.

### **a. 16-11-9-28**

Oil production at the beginning of 1998 was 1.91 m3/day at a water-cut of 19%. By December 31, 1998 oil production had increased to 2.2 m3/day with water-cut decreasing to 15%. During January, 1999, oil production averaged 1.92 m3/day at a water-cut of 18%. By April 30, 1999, oil production had declined to 1.6 m3/day at a water-cut of 15%. The decline in oil production is attributable to a lack of pressure maintenance in this part of the Unit. No corrective work is scheduled for this well during the balance of 1999.

### **b. 12-12-9-28**

Oil production at the beginning of 1998 was 1.93 m3/day at a water-cut of 16%. By December 31, 1998 oil production had declined to 1 m3/day with an increase in water-cut to 28%. During January, 1999 oil production averaged 0.9 m3/day at a water-cut of 34%. By April 30, 1999, oil production had declined to 0.78 m3/day with a decrease in water-cut to 14%. The significant decline in oil production is attributable to a lack of pressure maintenance in the southern sector of the Unit, and possible interference from well 16-11-9-28. No corrective work is planned at 12-12 during the balance of 1999.

### **c. 2-14-9-28**

Oil production at the beginning of 1998 was 2.18 m3/day at a water-cut of 17%. By December 31, 1998 oil production was relatively unchanged at 1.99 m3/day at a water-cut of 14%.

During January, 1999 oil production averaged 1.91 m<sup>3</sup>/day at a water-cut of 17%. By April 30, 1999, oil production was relatively unchanged at 1.82 m<sup>3</sup>/day at a water-cut of 7%. The strong performance of the 2-14 well is attributable to drainage over a large area in this sector of the Unit. Well 2-14 is proposed as a future injector in the Unit to provide pressure maintenance in the southern sector of the Unit. Conversion to injection operations will occur once the oil rate has declined at this location. No corrective work is planned at 2-14 during the balance of 1999.

**d. 6-14-9-28**

Oil production at the beginning of 1998 was 1.37 m<sup>3</sup>/day at a water-cut of 49%. By December 31, 1998 oil production had declined to 1.08 m<sup>3</sup>/day with a significant increase in watercut to 69%. During January, 1999 oil production averaged 1 m<sup>3</sup>/day at a water-cut of 74%. By April 30, 1999, oil production was unchanged at 1 m<sup>3</sup>/day, however, water-cut had decreased to 54%. The 6-14 well is commingled with Lodgepole production and may be receiving some flood support from the Lodgepole, since total fluid production has not changed dramatically over the last 1.5 years. Alternatively, well 6-14 may already be receiving some waterflood support from injector 11-14 due to a flattening in oil production and a decrease in water-cut. No corrective work is planned at 6-14 during the balance of 1999.

**e. 10-14-9-28**

Oil production at the beginning of 1998 was 1.17 m<sup>3</sup>/day at a water-cut of 20%. By December 31, 1998 oil production declined to 0.71 m<sup>3</sup>/day with water-cut increasing to 31%. During January, 1999 oil production averaged 0.7 m<sup>3</sup>/day at a water-cut of 30%. By April 30, 1999, oil production remained unchanged with water-cut decreasing to 17%. The flattening in oil production and decrease in water-cut is attributable to waterflood support from injector 11-14. No corrective work is planned at 10-14 during the balance of 1999.

**f. 11-14-9-28**

Oil production at the beginning of 1998 was 1.28 m<sup>3</sup>/day at a water-cut of 14%. By December 31, 1998 oil production remained unchanged at 1.29 m<sup>3</sup>/day at a water-cut of 15%. The 11-14-9-28 well was converted to injection service during December, 1998. The 11-14 well was selected as an injector, since it was best suited to provide pressure maintenance operations in the central area of the Unit. The injection rate at 11-14 will be increased to 15 m<sup>3</sup>/day during the

balance of 1999. No other work is planned at 11-14 during the balance of 1999.

**g. 13-14-9-28**

Oil production at the beginning of 1998 was 0.46 m3/day at a water-cut of 38%. By December 31, 1998 oil production was unchanged at 0.44 m3/day with a decrease in water-cut to 25%. The 13-14 well was periodically operated during the first quarter of 1999 due to low oil prices and marginal economics. The 13-14 well was returned to full time production in mid-April, 1999, as a result of oil prices beginning their recovery in April, 1999. The 13-14 well has always been a marginal Bakken producer, and no corrective work is planned at this location during the balance of 1999.

**h. 14-14-9-28**

Oil production at the beginning of 1998 was 1.71 m3/day at a water-cut of 10%. By December 31, 1998 oil production had declined to 1.23 m3/day at a water-cut of 17%. During January, 1999 oil production averaged 1.2 m3/day at a water-cut of 17%. By April 30, 1999, oil production had increased to 1.66 m3/day with a decrease in water-cut to 6%. The increase in oil production is directly attributable to waterflood support from injector 11-14. This conclusion is supported by both an increase in oil rate and a decrease in water-cut. Further increases in oil production should occur at 14-14 with more water injection at 11-14. The Lodgepole formation is proposed for hydraulic fracture stimulation at 14-14 during 1999 to further improve oil productivity from this well.

**i. 2-23-9-28**

Oil production at the beginning of 1998 was 0.31 m3/day at a water-cut of 25%. By December 31, 1998 oil production had declined to 0.2 m3/day at a water-cut of 20%. During the first quarter of 1999, the 2-23 well was operated periodically, since with low oil prices the economics of continuously producing 2-23 were marginal. The 2-23 well was returned to full time production in mid-April, 1999, as a result of oil prices beginning their recovery in April, 1999. The 2-23 Bakken well has always been a marginal oil producer (edge well in Bakken "I" Pool) and no corrective work is planned during the balance of 1999.



**j. 4-23-9-28**

Oil production at the beginning of 1998 was 0.57 m3/day at a water-cut of 0%. By December 31, 1998 oil production had declined to 0.21 m3/day at a water-cut of 0%. During January, 1999, oil production averaged 0.39 m3/day at a water-cut of 0%. The 4-23 well has always been a marginal producer, and this is attributed to the well being on the edge of the pool. No corrective work is planned at 4-23 during the balance of 1999.

**k. 6-23-9-28**

Oil production at the beginning of 1998 was 1.72 m3/day at a water-cut of 19%. By December 31, 1998 oil production had declined to 1.13 m3/day with water-cut increasing to 45%. During January, 1999, oil production averaged 1.08 m3/day at a water-cut of 47%. By April 30, 1999, oil production had increased to 1.29 m3/day with a decrease in water-cut to 18%. The increase in oil production is attributable to testing procedures. The 6-23 Bakken production is commingled with the Lodgepole production and may be receiving some pressure support from this formation. This observation is based on a fairly flat total fluid production profile during the last 1.5 years at 6-23. A hydraulic fracture stimulation of the Lodgepole formation is planned for the 6-23 well, in order to improve oil production at this location. The 6-23 well is the best Bakken producer in the northern sector of the Unit.

**7. Pressure Surveys**

Since the Bakken reservoir has low reservoir permeability, extended shut-in periods are required to reach the radial flow period, in order to make reliable pressure and formation parameter assessments. As a result, no pressure surveys were conducted during 1998. The Manitoba EMR has waived the requirement of conducting annual pressure surveys in recognition of this reservoir condition. However, Tundra will consider running pressure recorder devices in new wells where this information will be beneficial in reservoir management. Currently, running pressure buildup tests in mature Bakken wells is not economic.

## **8. Summary**

Pressure maintenance operations were recently installed in Cromer Unit No.1, and predictions of ultimate oil recovery with waterflooding would be under stated at this time. Improved oil recovery has been noted at 6-14, 10-14, and 14-14 after water injection commenced through 11-14 in late December, 1998. However, higher oil rates and lower water-cuts are expected in these two locations as cumulative water injection increases. With current drilling and equipping costs, further development on 16 hectare spacing (recognizing full cycle development) of this resource would not be economic.

## **CONCLUSIONS**

The following conclusions are offered by Tundra Oil and Gas Ltd. in our efforts to maximize oil recovery from the Cromer Unit No.1:

1. Tundra will continue to monitor production and carry out the required remedial work to achieve the recovery predictions outlined in this Progress Report.
2. Tundra will consider installing a second injector in the southern sector of the Unit at 2-14-9-28, once oil production declines at this location.
3. Two workovers will be attempted during 1999 in the Unit at 14-14 and 6-23-9-28 to improve oil productivity from this entity. Specifically, the Lodgepole formation in 14-14 and 6-23 will be hydraulically fracture stimulated.
4. Water injection at 11-14 will be increase to provide an annual voidage replacement ratio of 1.0 in the Unit.
5. As previously stated, conventional pressure buildup tests have been discontinued in the Unit, since extended shut-in times are required to obtain reliable estimates of formation parameters. The extended shut-in times would result in too much postponed production, which would negatively impact on the economic performance of the Unit. As an alternative, if a new well is drilled in the future adjacent to the Unit, a DST will be run to obtain the average reservoir pressure in the area.

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Table No.11:	Well 11-14-9-28 Injection History

**TABLE NO.1**  
**BAKKEN 'I' POOL FLUID PARAMETERS**

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**BAKKEN 'I' POOL**

---

<b>Reservoir Temperature</b>	<b>31 deg. C</b>
<b>Bubble Point Pressure</b>	<b>2,101 kPag</b>
<b>Oil API</b>	<b>41 deg. API</b>
<b>Boi</b>	<b>1.063 Rm3/m3</b>
<b>Solution GOR</b>	<b>27 m3/m3</b>
<b>Oil Compressibility @ Pi</b>	<b>1.15 E-6 (1/kPa)</b>
<b>Water Compressibility</b>	<b>4.5 E-7 (1/kPa)</b>
<b>Rock Compressibility</b>	<b>5.8 e-7 (1/kPa)</b>
<b>Water Salinity</b>	<b>90,000 ppm</b>

**TABLE NO.2**  
**CROMER UNIT NO.1**

---

<b>TOTAL UNIT WELLS</b>	<b>WELL STATUS</b>
16-11-9-28 W1M	OIL WELL
12-12-9-28 W1M	OIL WELL
2-14-9-28 W1M	OIL WELL
6-14-9-28 W1M	OIL WELL
10-14-9-28 W1M	OIL WELL
11-14-9-28 W1M	INJECTOR
13-14-9-28 W1M	OIL WELL
14-14-9-28W1M	OIL WELL
2-23-9-29 W1M	OIL WELL
4-23-9-28 W1M	OIL WELL
6-23-9-28 W1M	OIL WELL

TABLE NO.3

CROMER UNIT NO.1									
VOLUMETRIC OIL-IN-PLACE ESTIMATES									
BAKKEN 'I' POOL									
LSD	Constant	Area (hectares)	Phi-h (% metres)	Sw (fraction)	(1-Sw) (fraction)	Boi (Rm3/m3)	OOIP (m3)	OOIP (STB)	
9-11-9-28	10,000	16.19	6.1	0.45	0.55	1.05	5,173	32,539	
15-11-9-28	10,000	16.19	9.5	0.45	0.55	1.05	8,056	50,675	
16-11-9-28	10,000	16.19	8.79	0.45	0.55	1.05	7,454	46,988	
12-12-9-28	10,000	16.19	4.4	0.45	0.55	1.05	3,731	23,471	
1-14-9-28	10,000	16.19	10.82	0.45	0.55	1.05	9,176	57,716	
2-14-9-28	10,000	16.19	11.8	0.45	0.55	1.05	10,007	62,944	
6-14-9-28	10,000	16.19	9	0.45	0.55	1.05	7,632	48,008	
7-14-9-28	10,000	16.19	11.9	0.45	0.55	1.05	10,092	63,477	
8-14-9-28	10,000	16.19	11.39	0.45	0.55	1.05	9,659	60,757	
9-14-9-28	10,000	16.19	8.6	0.45	0.55	1.05	7,293	45,874	
10-14-9-28	10,000	16.19	9.9	0.45	0.55	1.05	8,396	52,808	
11-14-9-28	10,000	16.19	11.7	0.45	0.55	1.05	9,922	62,410	
12-14-9-28	10,000	16.19	7.3	0.45	0.55	1.05	6,191	38,940	
13-14-9-28	10,000	16.19	9.2	0.45	0.55	1.05	7,802	49,075	
14-14-9-28	10,000	16.19	14.3	0.45	0.55	1.05	12,127	76,279	
15-14-9-28	10,000	16.19	9.5	0.45	0.55	1.05	8,056	50,675	
1-23-9-28	10,000	16.19	3	0.45	0.55	1.05	2,544	16,003	
2-23-9-28	10,000	16.19	8.2	0.45	0.55	1.05	6,954	43,741	
3-23-9-28	10,000	16.19	13.3	0.45	0.55	1.05	11,279	70,945	
4-23-9-28	10,000	16.19	10.4	0.45	0.55	1.05	8,820	55,476	
5-23-9-28	10,000	16.19	9	0.45	0.55	1.05	7,632	48,008	
6-23-9-28	10,000	16.19	7.4	0.45	0.55	1.05	6,276	39,473	
TOTAL		356.18					174,274	1,096,182	

NOTE: POROSITY CUT-OFF = 15%



PRODUC99.XLS

TABLE NO. 5												
	CROMER UNIT NO.1											
	1999 PRODUCTION DATA											
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
OIL (m3)	286.5	272.2	293.7	275.5	-	-	-	-	-	-	-	-
WATER (m3)	176.1	114.6	92.7	80.5	-	-	-	-	-	-	-	-
TOTAL FLUID (m3)	462.6	386.8	386.4	356.0	-	-	-	-	-	-	-	-
DAILY OIL (m3/day)	9.4	10.4	9.7	10.1	-	-	-	-	-	-	-	-
WATER-CUT (%)	38.1	29.6	23.9	22.6	-	-	-	-	-	-	-	-
AVERAGE MONTHLY OIL =					282.0	m3						
AVERAGE MONTHLY WATER =					116.0	m3						
AVERAGE MONTHLY TOTAL FLUID =					398.0	m3						
AVERAGE ANNUAL DAILY OIL =					9.9	m3/day						
AVERAGE MONTHLY WATER-CUT =					29.1	%						
1999 CUM. OIL PRODUCTION(99.04.30) =					1,127.9	m3						
1999 CUM. WATER PRODUCTION(99.04.30)					463.9	m3						
CUM. OIL PRODUCTION TO 99.04.30 =					27,055.1	m3						



**TABLE NO.6**

TABLE NO.6												CRUI8ECP.XLS
CROMER UNIT NO.1												
CURRENT BAKKEN RATES AND RECOVERY PROFILES												
Well	LSD (undeveloped)	Oil Rate (m3/day) 99.04.30	Water-cut (%) 99.04.30	Total Rate (m3/day) 99.04.30	Cum. Oil (m3) 99.04.30	OOIP (m3)	Ultimate Rec. (m3)	Rem. Oil (m3) 99.04.30	Cur. Rec. Fac. (% of OOIP) 99.04.30	Ult. Rec. Fac (% of OOIP)		
16-11-9-28		1.6	15	1.8	2,495.4	7,454	6,055	3,560	33.5	81.2		
12-12-9-28		0.8	14	0.9	880.6	3,731	2,373	1,492	23.6	63.6		
2-14-9-28		1.8	7	2.0	5,072.3	10,007	7,824	2,752	50.7	78.2		
6-14-9-28		1.0	54	2.2	2,126.7	7,632	3,240	1,113	27.9	42.5		
10-14-9-28		0.7	17	0.8	2,024.4	8,396	3,285	1,261	24.1	39.1		
11-14-9-28		0.0	0	0.0	4,191.4	9,922	4,191	0	42.2	42.2		
13-14-9-28		1.0	43	1.8	1,630.9	7,802	2,179	548	20.9	27.9		
14-14-9-28		1.7	6	1.8	5,051.4	12,127	8,416	3,365	41.7	69.4		
2-23-9-28		0.4	53	0.7	1,409.3	6,954	1,519	110	20.3	21.8		
4-23-9-28		0.3	0	0.3	1,054.6	8,820	1,277	222	12.0	14.5		
6-23-9-28		1.3	18	1.6	1,118.1	6,276	3,788	2,670	17.8	60.4		
	9-11-9-28					5,173						
	15-11-9-28					8,056						
	1-14-9-28					9,176						
	7-14-9-28					10,092						
	8-14-9-28					9,659						
	9-14-9-28					7,293						
	12-14-9-28					6,191						
	15-14-9-28					8,056						
	1-23-9-28					2,544						
	3-23-9-28					11,279						
	5-23-9-28					7,632						
TOTALS		10.5	24.6	13.9	27,055	174,272	44,147	17,092	15.5	25.3		

TABLE NO.7												
CROMER UNIT NO.1												
1998 WATER INJECTION SUMMARY												
11-14-9-28 INJECTION WELL												
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
TOTAL(m3)	-	-	-	-	-	-	-	-	-	-	-	132
DAILY(m3/day)	-	-	-	-	-	-	-	-	-	-	-	4
1998 AVERAGE ANNUAL DAILY INJECTION = 4 m3/day												
CUMULATIVE INJECTION TO 97-12-31 = 0 m3												
TOTAL 1998 ANNUAL INJECTION = 132 m3												
CUMULATIVE INJECTION TO 98-12-31 = 132 m3												

TABLE NO.8												
CROMER UNIT NO.1												
1999 WATER INJECTION SUMMARY												
11-14-9-28 INJECTION WELL												
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
TOTAL(m3)	415	368	361	226	378	-	-	-	-	-	-	-
DAILY(m3/day)	13	13	12	8	12	-	-	-	-	-	-	-
1999 AVERAGE ANNUAL DAILY INJECTION =												
					12	m3/day						
CUMULATIVE INJECTION TO 98-12-31 =												
					132	m3						
TOTAL 1999 ANNUAL INJECTION (99.05.31)												
					1,749	m3						
CUMULATIVE INJECTION TO 99-05-31 =												
					1,881	m3						

VOIDA98.XLS

TABLE NO.9									
CROMER UNIT NO.1									
VOIDAGE CALCULATIONS									
FROM JAN 1,1998 TO DEC. 31, 1998									
OIL FORMATION VOLUME FACTOR = 1.063 Rm3									
MONTH	OIL PRODUCTION	WATER PRODUCTION	OIL VOIDAGE	TOTAL VOIDAGE	TOTAL INJECTION	NET VOIDAGE	VOIDAGE REPLACEMENT RATIO		
	m3	m3	Rm3	Rm3	Rm3	Rm3	VRR		
JAN.	440.1	121.0	467.83	588.8	-	-	-		
FEB.	393.7	77.3	418.50	495.8	-	-	-		
MAR.	428.9	74.1	456.98	531.1	-	-	-		
APRIL	403.6	86.7	428.03	515.7	-	-	-		
MAY	389.4	91.8	413.93	505.7	-	-	-		
JUNE	366.7	104.1	389.80	493.9	-	-	-		
JULY	379.3	96.6	403.20	499.8	-	-	-		
AUG.	376.2	97.2	399.90	497.1	-	-	-		
SEPT.	367.0	83.6	390.12	473.7	-	-	-		
OCT.	356.5	93.9	378.96	472.9	-	-	-		
NOV.	322.3	104.3	342.60	446.9	-	-	-		
DEC.	315.6	158.8	335.48	494.3	131.9	362.38	0.27		
TOTAL	4,540.30	1,189	4,826	6,016	132	5,884	0.02		
CUM. POOL VOIDAGE (98.12.31) =			33,761	Rm3					
CUM. POOL INJECTION (98.12.31) =			132	Rm3					
CUM. NET VOIDAGE (98.12.31) =			33,630	Rm3					
CUM. VRR (98.12.31) =			0.004	Rm3 / Rm3					

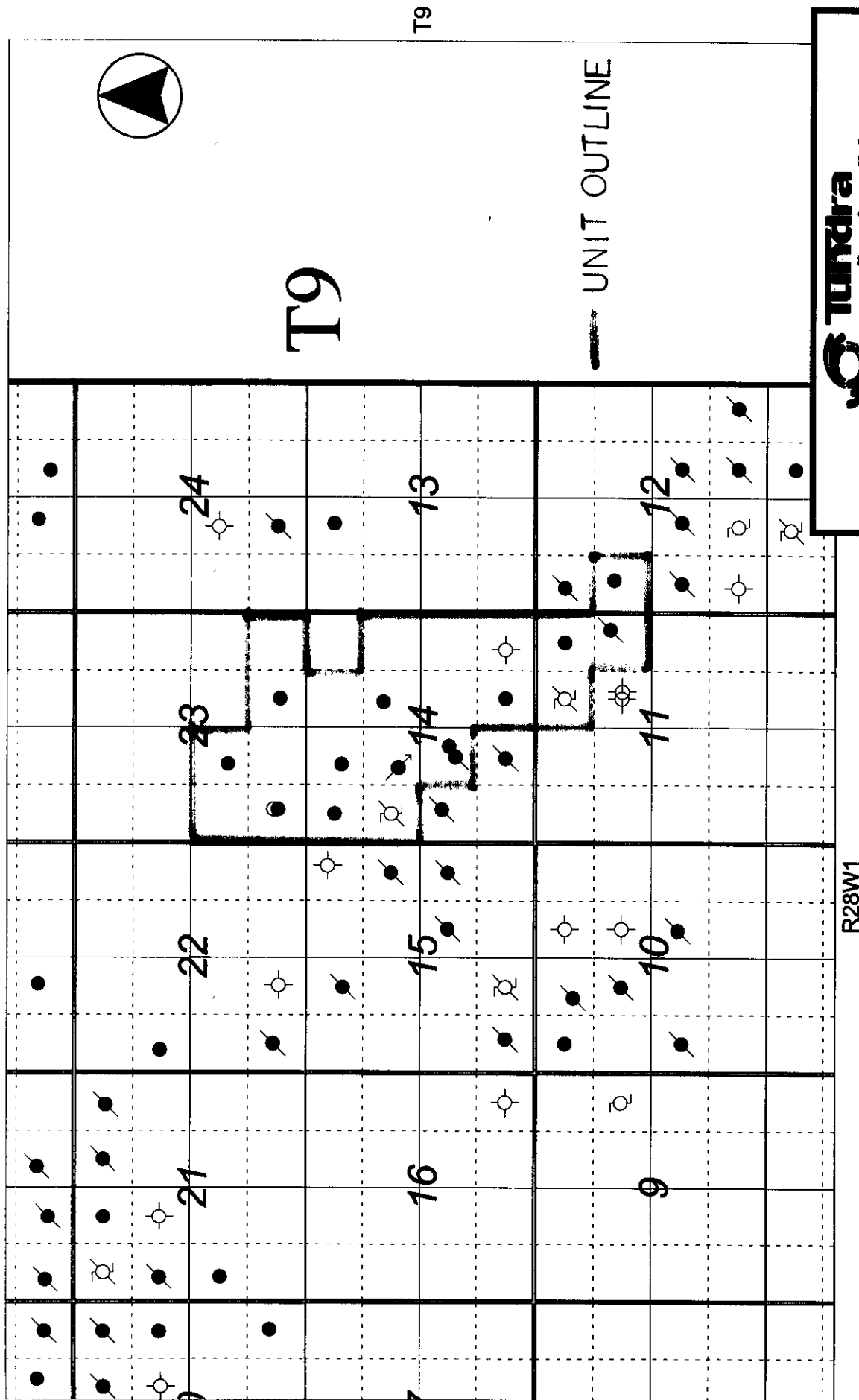
TABLE NO.10									
CROMER UNIT NO.1									
VOIDAGE CALCULATIONS									
FROM JAN 1,1999 TO MAY 31, 1999									
OIL FORMATION VOLUME FACTOR = 1.063 Rm3									
MONTH	OIL PRODUCTION	WATER PRODUCTION	OIL VOIDAGE	TOTAL VOIDAGE	TOTAL INJECTION	NET VOIDAGE	VOIDAGE REPLACEMENT RATIO		
	m3	m3	Rm3	Rm3	Rm3	Rm3	VRR		
JAN.	286.5	176.1	304.55	480.6	415.4	65.25	0.86		
FEB.	272.2	114.6	289.35	403.9	368.1	35.85	0.91		
MAR.	293.7	92.7	312.20	404.9	361.2	43.70	0.89		
APRIL	275.5	80.5	292.86	373.4	226.3	147.06	0.61		
MAY	270.0	75.0	287.01	362.0	378.3	-16.29	1.04		
JUNE	-	-	-	-	-	-	-		
JULY	-	-	-	-	-	-	-		
AUG.	-	-	-	-	-	-	-		
SEPT.	-	-	-	-	-	-	-		
OCT.	-	-	-	-	-	-	-		
NOV.	-	-	-	-	-	-	-		
DEC.	-	-	-	-	-	-	-		
TOTAL	1,397.90	539	1,486	2,025	1,749	276	0.86		
CUM. POOL VOIDAGE (99.05.31) =									
CUM. POOL INJECTION (99.05.31) =									
CUM. NET VOIDAGE (99.05.31) =									
CUM. VRR (99.05.31) =									
Note: May, 1999 Oil and Water Production Estimated									


TABLE NO. 11											
CROMER UNIT NO.1											
WELL 11-14-9-28 INJECTION HISTORY											
Year	Month	Qinj (m3/day)	Monthly Injection (m3)	Cum Injection (m3)	Pinj (psig)	Qinj (m3/day)	Pinj* Time (psig.days)	Cum. Injection (m3)	Injection (m3)	Cum. Pres*Chge Time (psig.days)	
1998	Jan	0	0	0	0	0	0	0	0	0	
	Feb	0	0	0.0	0	0	0	0	0	0	
	Mar	0	0	0.0	0	0	0	0	0	0	
	Apr	0	0	0.0	0	0	0	0	0	0	
	May	0	0	0.0	0	0	0	0	0	0	
	June	0	0	0.0	0	0	0	0	0	0	
	July	0	0	0.0	0	0	0	0	0	0	
	Aug	0	0	0.0	0	0	0	0	0	0	
	Sept	0	0	0.0	0	0	0	0	0	0	
	Oct	0	0	0.0	0	0	0	0	0	0	
	Nov	0	0	0.0	0	0	0	0	0	0	
	Dec	4.3	131.9	131.9	184	4.3	5,704	132	132	5,704	
1999	Jan	13.4	415.4	547.3	429	13.4	13,299	547	547	19,003	
	Feb	13.1	368.1	915.4	579	13.1	16,212	915	915	35,215	
	Mar	11.7	361.2	1,276.6	658	11.7	20,398	1,277	1,277	55,613	
	Apr	7.5	226.3	1,502.9	648	7.5	19,440	1,503	1,503	75,053	
	May	12.2	378.3	1,881.2	754	12.2	23,374	1,881	1,881	98,427	

LIST OF FIGURES


Figure No.1:	Cromer Unit No.1 Area
Figure No.2:	Unit Production History
Figure No.2:	Unit Ultimate Oil Recovery Prediction
Figure No.3:	11-14-9-28 Injector Performance
Figure No.4:	Half Plot 11-14-9-28 Injection Well

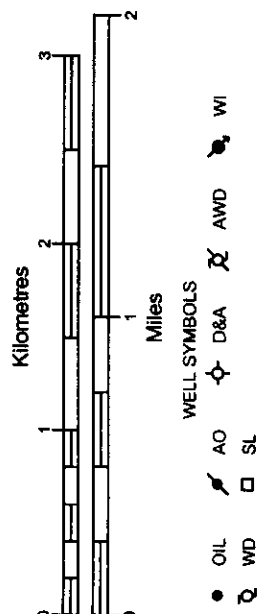
FIGURE NO.1





## CROMER UNIT #1

 geologic systems inc. <small>(403) 943-1882 www.geologic.com</small>	By : Scale = 1:40000	Date : 1998/06/23 Project : untitled
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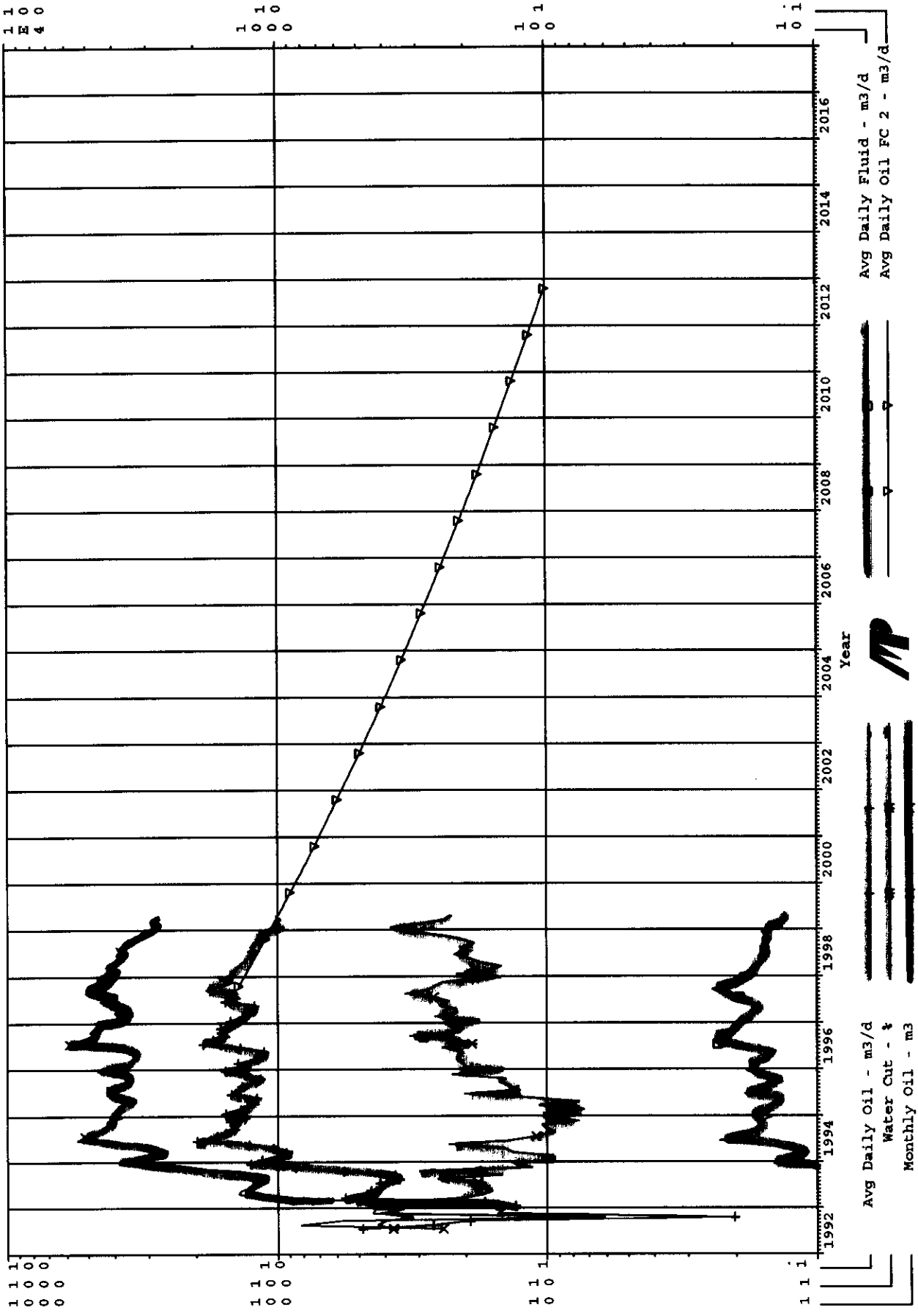




# FIGURE NO.2

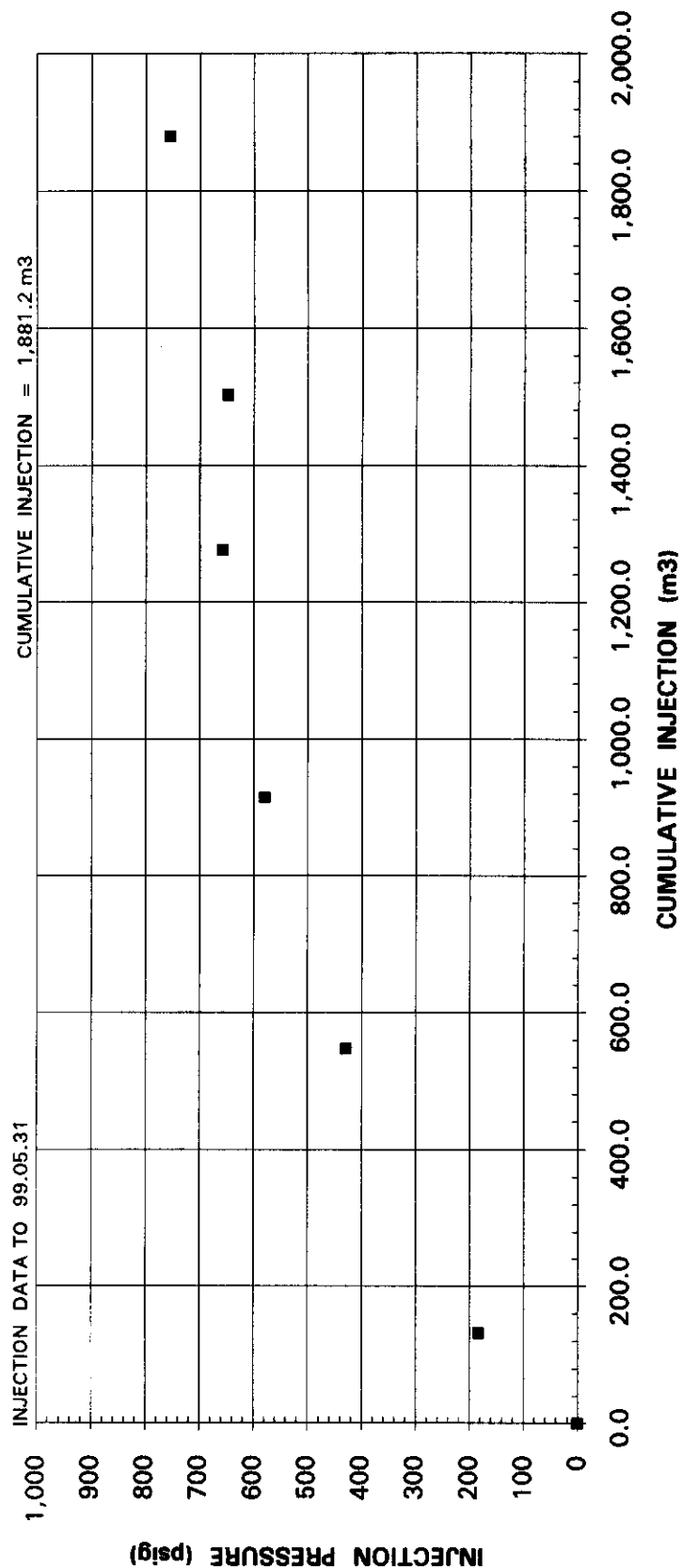
Operator: CFBKW Data 07/92-04/99  
 Field: Avg Daily Oil FC 2 (Rate-Time)  
 Zone: qi: 14.1708 m3/d, Oct, 1997  
 Type: Oil qf: 1.0063 m3/d, Oct, 2012  
 Group: crulbakw di(Hyp): 20.1995 CTD: 27055.1 m3  
 RR: 17155.1 m3 Tot: 44210.2 m3

Production Cums  
 Oil: 27055.1 m3  
 Gas: 0 E6m3  
 Water: 6664.7 m3  
 Cond: 0 m3



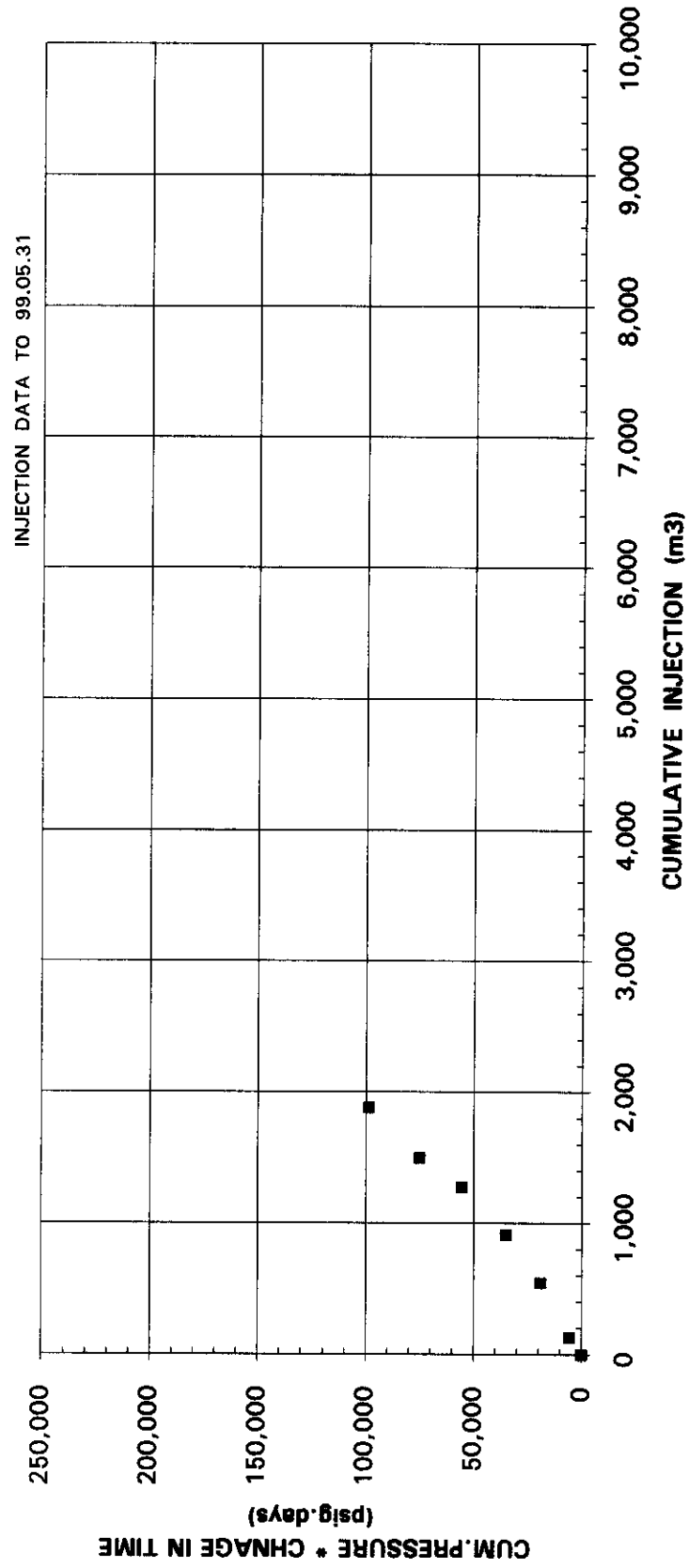
C1114INJ.XLC

**FIGURE NO.3**  
**INJECTION PERFORMANCE OF WELL 11-14-9-28**



CHP1114.XLC

**FIGURE NO.4**  
**HALL PLOT INJECTION WELL 11-14-9-28**



**ATTACHMENT NO.1**

**CROMER UNIT NO.1 HISTORICAL PRODUCTION**

# Production Report

Group	: crulbakw	Date	: 6/16/99 2:36:43 pm
Well	: CRBAKW	User	: GEORGE
	: 000000036		
Hist.Data	: 07/92-04/99	On Prod	: 02/09
Operator	:	Status	: Oil
Field	:	Zone	:

## Production Data from July, 1992 to April, 1999

Year	Avg Daily Oil m3/d	Monthly Oil m3	Cum Oil m3	Water Cut %	Monthly Water m3	Cum Water m3
Jul., 1992	4.84	24.2	24.2	37.1326	14.3	14.3
Aug., 1992	2.64516	82	106.2	42.526	60.7	75
Sep., 1992	1.93	57.9	164.1	39.677	38.1	113.1
Oct., 1992	0.203333	6.1	170.2	31.4512	2.8	115.9
Nov., 1992	1.47	44.1	214.3	41.0321	30.7	146.6
Dec., 1992	1.49655	43.4	257.7	34.1327	22.5	169.1
Jan., 1993	1.30714	18.3	276	38.7855	11.6	180.7
Feb., 1993	1.705	34.1	310.1	39.3133	22.1	202.8
Mar., 1993	5.60468	119.8	429.9	20.2326	30.4	233.2
Apr., 1993	4.67916	139.4	569.3	17.1655	28.9	262.1
May., 1993	4.50578	136.3	705.6	15.9102	25.8	287.9
Jun., 1993	4.17094	122	827.6	16.8309	24.7	312.6
Jul., 1993	4.17778	122.2	949.8	18.0351	26.9	339.5
Aug., 1993	3.52903	109.4	1059.2	25.4685	37.4	376.9
Sep., 1993	3.67333	110.2	1169.4	14.6343	18.9	395.8
Oct., 1993	5.69226	137.8	1307.2	29.8635	58.7	454.5
Nov., 1993	8.59208	225.9	1533.1	11.3378	28.9	483.4
Dec., 1993	12.5992	380.6	1913.7	13.1595	57.7	541.1
Jan., 1994	11.4374	321.2	2234.9	9.38976	33.3	574.4
Feb., 1994	9.98784	260.1	2495	9.49517	27.3	601.7
Mar., 1994	9.28439	267.7	2762.7	13.2764	41	642.7
Apr., 1994	10.3874	275.7	3038.4	14.4531	46.6	689.3
May., 1994	12.7238	334	3372.4	23.1752	100.8	790.1
Jun., 1994	19.8496	550	3922.4	13.8823	88.7	878.8
Jul., 1994	16.7902	515.6	4438	10.9302	63.3	942.1
Aug., 1994	15.5951	480.2	4918.2	9.37539	49.7	991.8
Sep., 1994	14.4567	433.7	5351.9	10.0727	48.6	1040.4
Oct., 1994	14.4	427.2	5779.1	10.4174	49.7	1090.1
Nov., 1994	14.9833	426.4	6205.5	7.60254	35.1	1125.2
Dec., 1994	13.2193	377.3	6582.8	10.184	42.8	1168
Jan., 1995	15.5961	396.4	6979.2	10.2924	45.5	1213.5
Feb., 1995	13.6954	382.9	7362.1	7.26271	30	1243.5
Mar., 1995	12.9721	387	7749.1	10.6606	46.2	1289.7
Apr., 1995	12.2991	333.1	8082.2	7.57183	27.3	1317
May., 1995	11.9594	353.8	8436	11.6559	46.7	1363.7
Jun., 1995	14.8444	400.8	8836.8	20.2476	101.8	1465.5
Jul., 1995	13.842	411.8	9248.6	13.2637	63	1528.5

# Production Report

Group : crulbakw  
Well : CRBAKW  
: 000000036

Date : 6/16/99 2:36:46 pm  
User : GEORGE

## Production Data from July, 1992 to April, 1999 (cont.)

Year	Avg Daily Oil m3/d	Monthly Oil m3	Cum Oil m3	Water Cut %	Monthly Water m3	Cum Water m3
Aug., 1995	13.5338	395.3	9643.9	13.6471	62.5	1591
Sep., 1995	12.0633	361.9	10005.8	14.9615	63.7	1654.7
Oct., 1995	11.5636	344.5	10350.3	14.17	56.9	1711.6
Nov., 1995	13.1495	364.9	10715.2	22.4365	105.6	1817.2
Dec., 1995	15.6252	464.2	11179.4	14.5851	79.3	1896.5
Jan., 1996	13.2626	360.3	11539.7	19.9085	89.6	1986.1
Feb., 1996	14.004	353.6	11893.3	20.6035	91.8	2077.9
Mar., 1996	11.8143	343.6	12236.9	21.6881	95.2	2173.1
Apr., 1996	11.6077	328.4	12565.3	21.3339	89.1	2262.2
May., 1996	11.261	326.1	12891.4	20.5724	84.5	2346.7
Jun., 1996	13.7774	396.1	13287.5	24.4867	128.5	2475.2
Jul., 1996	18.8931	584.9	13872.4	18.8923	136.3	2611.5
Aug., 1996	17.3637	489.8	14362.2	22.5046	142.3	2753.8
Sep., 1996	15.721	467.7	14829.9	32.3743	224	2977.8
Oct., 1996	16.155	493.4	15323.3	21.137	132.3	3110.1
Nov., 1996	16.2897	472.4	15795.7	20.2764	120.2	3230.3
Dec., 1996	14.8548	460.5	16256.2	23.9893	145.4	3375.7
Jan., 1997	14.929	462.8	16719	17.7473	99.9	3475.6
Feb., 1997	13.4706	360.9	17079.9	26.0214	127	3602.6
Mar., 1997	13.1052	400.8	17480.7	21.3735	109	3711.6
Apr., 1997	12.5467	376.4	17857.1	21.6738	104.2	3815.8
May., 1997	12.1929	360.2	18217.3	25.0126	120.2	3936
Jun., 1997	15.6053	440.2	18657.5	23.0342	131.8	4067.8
Jul., 1997	14.2884	435.2	19092.7	26.2288	154.8	4222.6
Aug., 1997	14.8932	407.7	19500.4	33.7083	207.4	4430
Sep., 1997	17.7444	499.8	20000.2	27.5984	190.6	4620.6
Oct., 1997	16.4557	497.1	20497.3	25.8197	173.1	4793.7
Nov., 1997	14.6828	425.8	20923.1	24.321	136.9	4930.6
Dec., 1997	14.9613	463.8	21386.9	14.831	80.8	5011.4
Jan., 1998	14.5488	440.1	21827	21.5573	121	5132.4
Feb., 1998	14.5815	393.7	22220.7	16.4059	77.3	5209.7
Mar., 1998	13.8677	429.9	22650.6	14.6969	74.1	5283.8
Apr., 1998	13.4533	403.6	23054.2	17.6766	86.7	5370.5
May., 1998	12.98	389.4	23443.6	19.0705	91.8	5462.3
Jun., 1998	12.2574	366.7	23810.3	22.1037	104.1	5566.4
Jul., 1998	12.4531	379.3	24189.6	20.2913	96.6	5663
Aug., 1998	12.5925	376.2	24565.8	20.5251	97.2	5760.2
Sep., 1998	12.2333	367	24932.8	18.5464	83.6	5843.8
Oct., 1998	11.6567	356.5	25289.3	20.8409	93.9	5937.7
Nov., 1998	11.8638	322.3	25611.6	24.441	104.3	6042
Dec., 1998	10.6682	315.6	25927.2	33.4641	158.8	6200.8

## Production Report

Group : crulbakw  
Well : CRBAKW  
: 000000036

Date : 6/16/99 2:36:48 pm  
User : GEORGE

### Production Data from July, 1992 to April, 1999 (cont.)

Year	Avg Daily Oil m3/d	Monthly Oil m3	Cum Oil m3	Water Cut %	Monthly Water m3	Cum Water m3
Jan., 1999	9.39344	286.5	26213.7	38.0571	176.1	6376.9
Feb., 1999	10.3531	272.2	26485.9	29.6185	114.6	6491.5
Mar., 1999	9.70909	293.7	26779.6	23.9827	92.7	6584.2
Apr., 1999	10.0947	275.5	27055.1	22.6047	80.5	6664.7

**ATTACHMENT NO.2**

**INDIVIDUAL WELL ULTIMATE RECOVERY PREDICTIONS**



Data 03/96-04/99

**Operator:**

Field: 1

Zone: 60T

Type: Unknown

type: unknown  
From: smilb@

((Cromer Unit No. 1 Prov. RE R//E16-11-9-28W1))

	Avg Daily Oil FC 1 (Rate-Time)
1970-1980	1.0
1980-1990	1.0
1990-2000	1.0
2000-2010	1.0
2010-2020	1.0
2020-2030	1.0
2030-2040	1.0
2040-2050	1.0
2050-2060	1.0
2060-2070	1.0
2070-2080	1.0
2080-2090	1.0
2090-2100	1.0

ai: 2.26721 m3/d. Aug. 1996

91: 2:20741 m3/a, Aug, 1990  
 91: 0 29974 m3/a Feb 2012

Q1: 0-25574 m3/a, Feb, 2012  
(Eva): 13 1767 mm. 2495 4 -3

1 (Exp): 12.1767 CID: 2495.4 m3

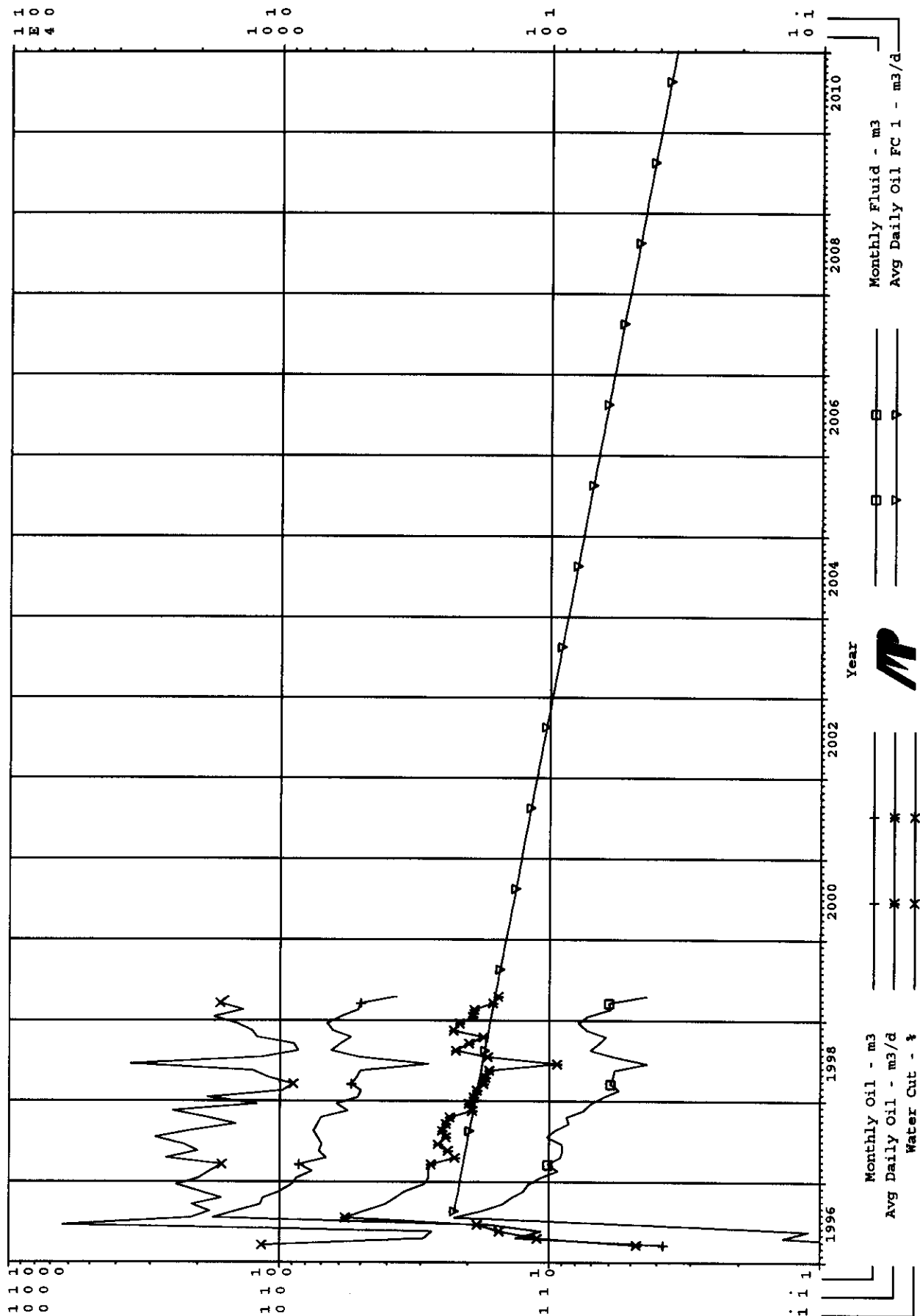
## Production Cycles

Oil: 2495.4 m3

Page 0 Page 3

[illegible]

Water: 5/4.8 m3



00/12-12-009-28W1/2 (Cromer Unit No. 1 Prov. RE R/E12-12-9-28W1) Data 08/97-04/99

Operator: Avg Daily Oil FC 1 (Rate-Time)

Field: 1 qi: 0.948148 m3/d, Oct, 1997

Zone: 601 qf: 0.297753 m3/d, Jul, 2007

Type: Unknown di(Exp): 11.1115 CTD: 880.6 m3

Group: cromerul RR: 1492.57 m3 Tot: 2373.17 m3

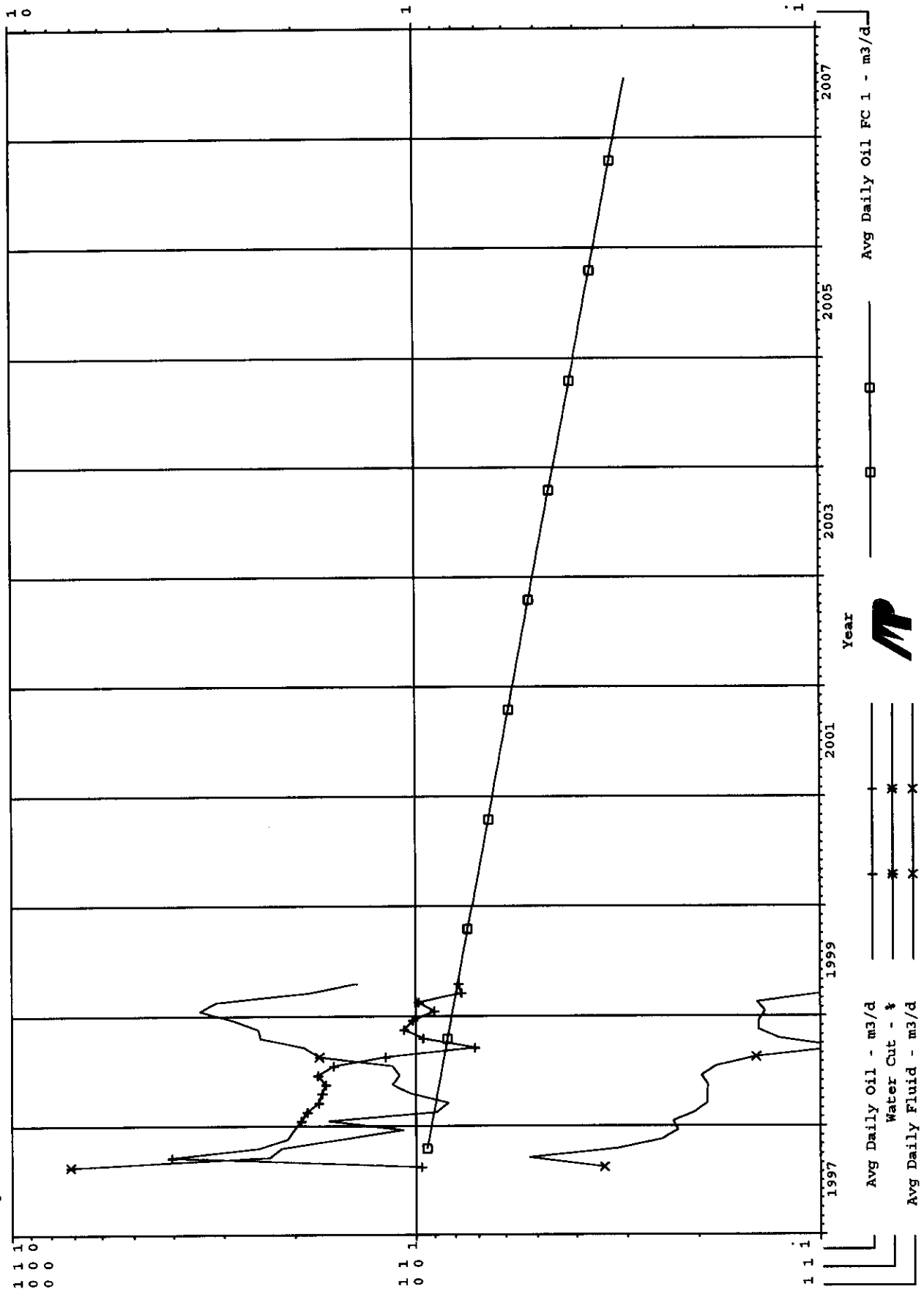
Production Cumu

Oil: 880.6 m3

Gas: 0 E6m3

Water: 207.1 m3

Cond: 0 m3

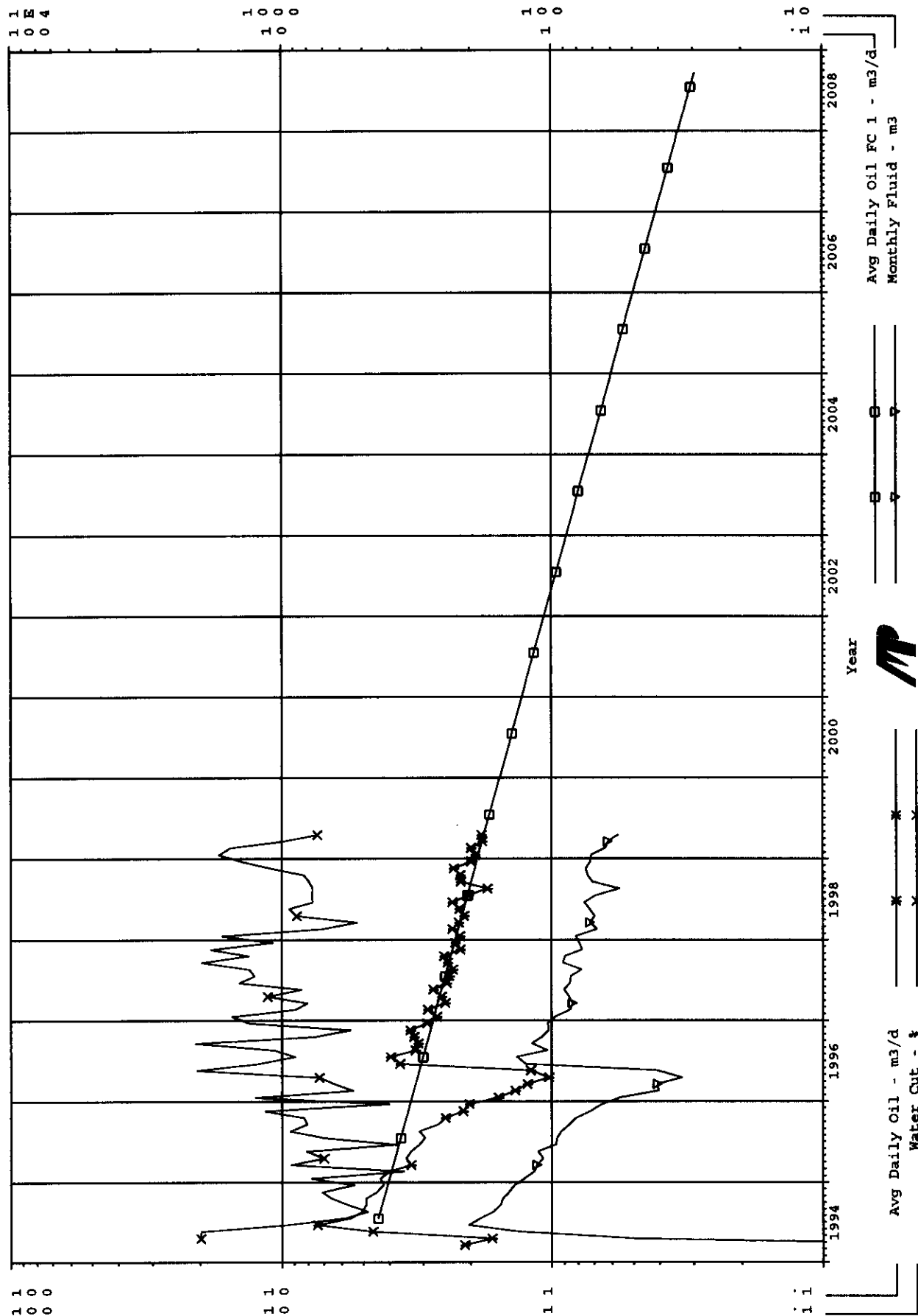


00/02-14-009-28W1/2 (Cromer Unit No. 1 Prov R//E2-14-9-28W1) Data 03/94-04/99

Operator:  
Field: 1  
Zone: 601  
Type: Unknown  
Group: cromerul

Avg Daily Oil FC 1 (Rate-Time)  
qi: 4.46069 m3/d, Jul, 1994  
qf: 0.295836 m3/d, Sep, 2008  
dl(Exp): 17.3216 CTD: 5072.3 m3  
RR: 2751.51 m3 Tot: 7823.81 m3

Production Cums  
Oil: 5072.3 m3  
Gas: 0 E6m3  
Water: 552.8 m3  
Cond: 0 m3



02/06-14-009-28W1/2

**Operator:**

Field: 1

**Zone: 60I**

Type: Unknown

Group: cromerul

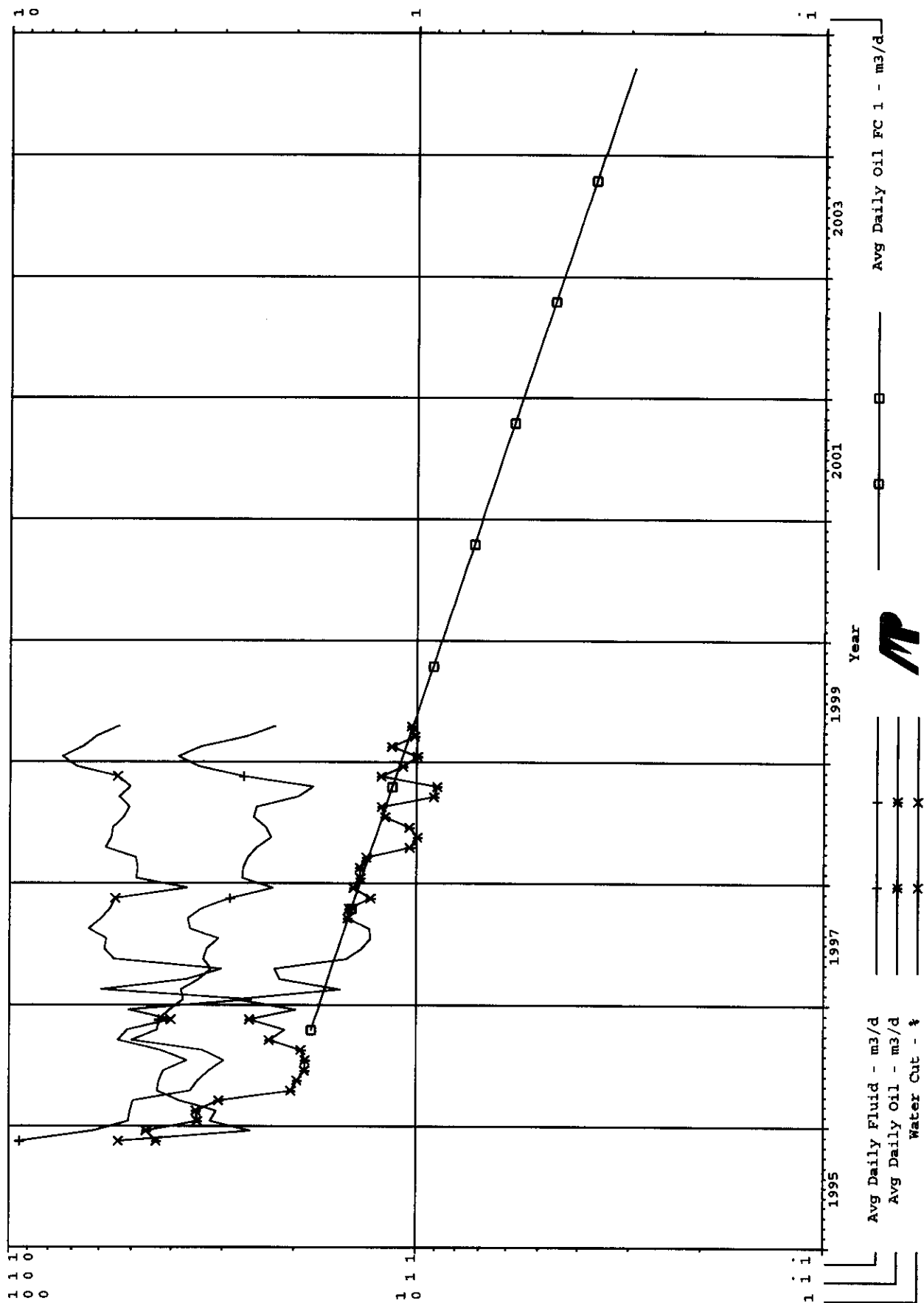
Production Cums

Oil: 2126.7 m3

Gas: 0 E6m3

Water: 1995.1 m3

Cond: 0 m3  
acer: 1993.1 m3



00/10-14-009-28W1/0 (Cromer Unit No. 1 Prov. COM 10-14-9-28W1) Data 03/95-04/99

Operator:

Field: 1

Zone: 601

Type: Unknown

Group: cruibakw

Avg Daily Oil FC 1 (Rate-Time)

qi: 1.10705 m3/d, Jul, 1995

qf: 0.298763 m3/d, Jan, 2007

di(Exp): 10.6918 CTD: 2024.4 m3

RR: 1260.78 m3 Tot: 3285.18 m3

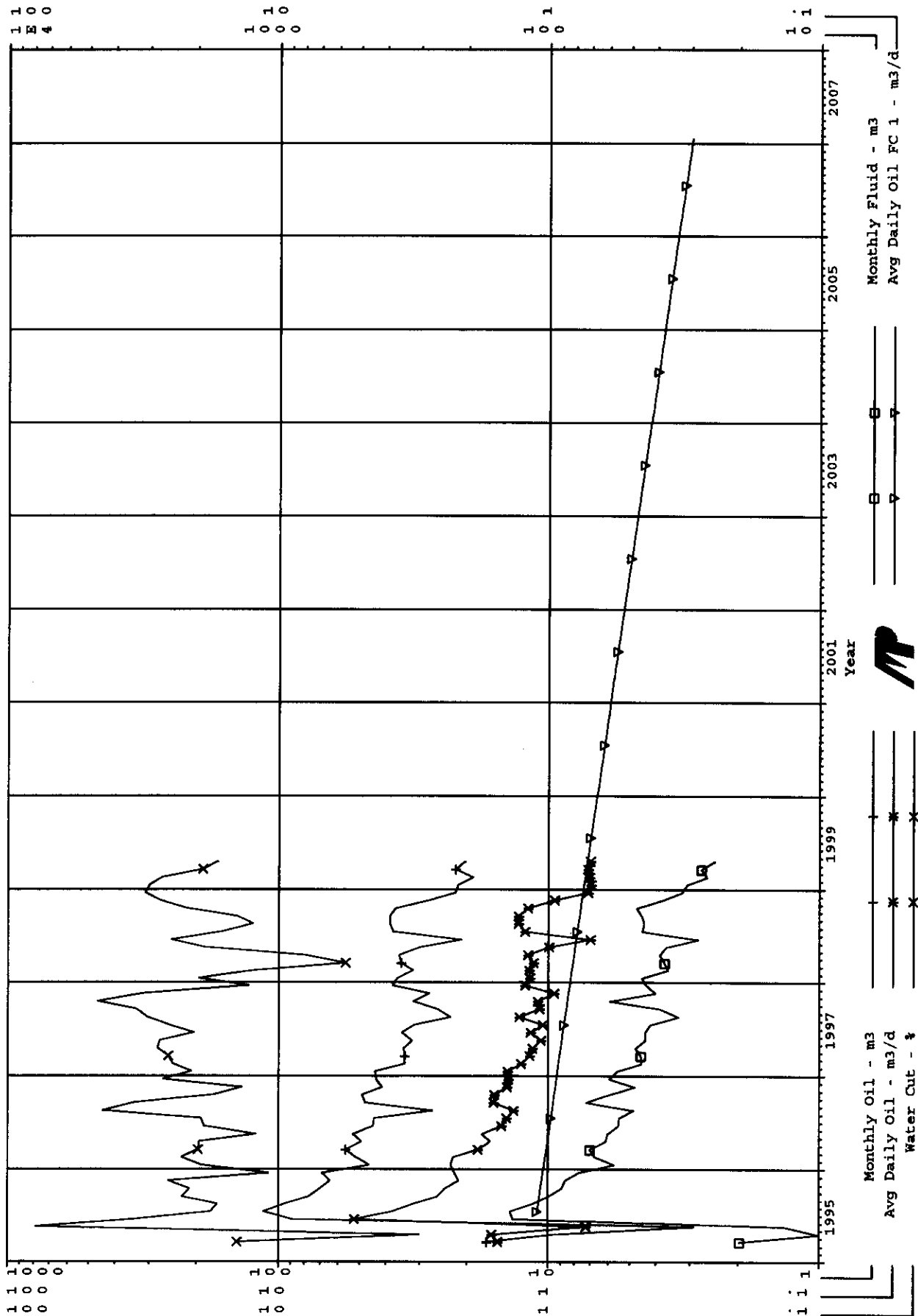
Production Cums

Oil: 2024.4 m3

Gas: 0 E6m3

Water: 590.4 m3

Cond: 0 m3



**Operator:**

Field: 1

Zone: 60I

Type: Unknown

Group: crulbkw

(Cromer Unit No. 1 Prov. WIW 11-14-9-28W1)

Data 10/93-01/99

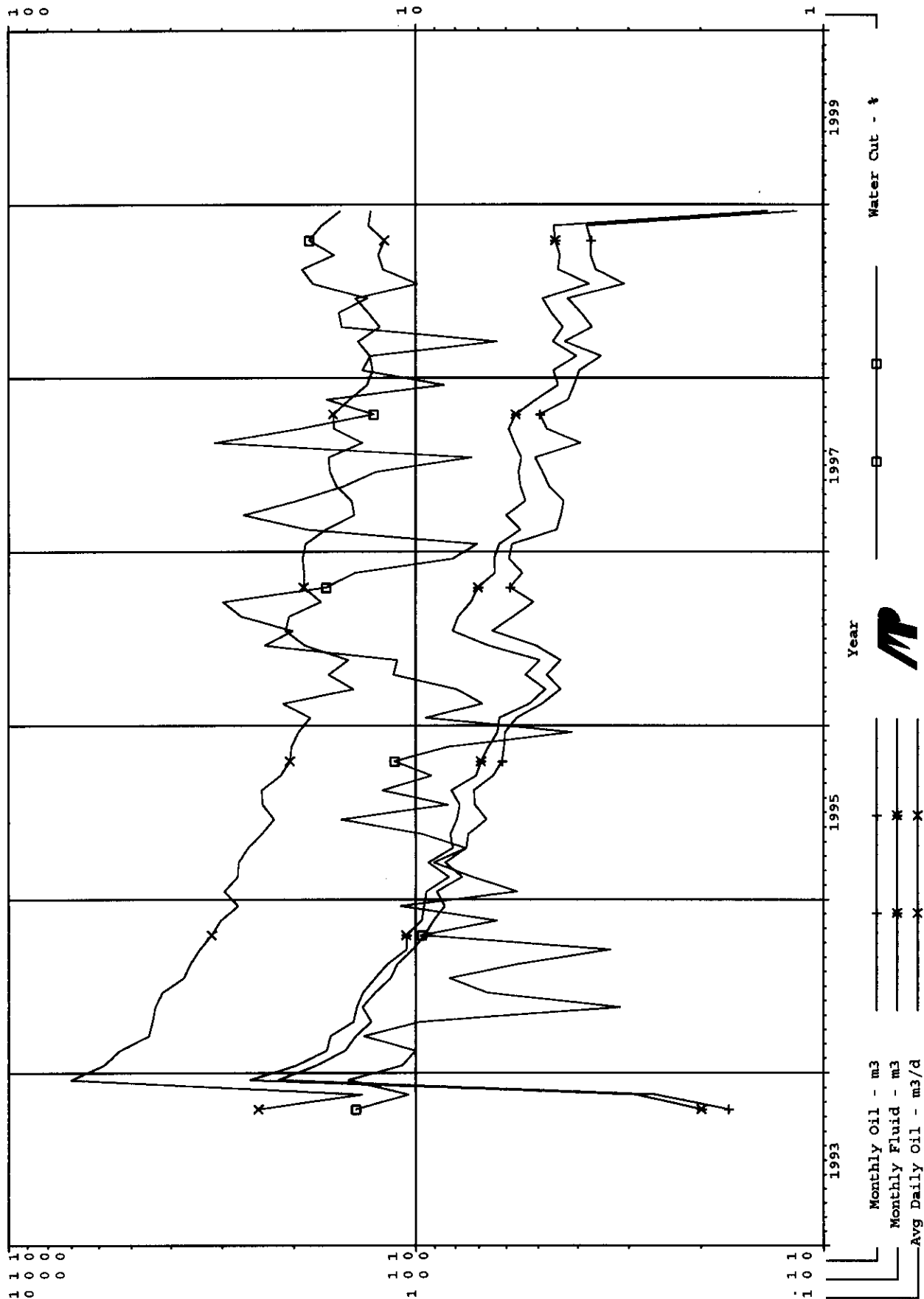
## Production Cume

Oil: 4191.4 m3

**Gas: 0 E6m3**

**Water: 571.5 m3**

Cond: 0 m3



**Operator:**

Field: 1

**Zone: 60I**

Type: Unknown

Group: cru1bakw

(Cromer Unit No. 1 Prov. R//E13-14-9-28W1)

Avg Daily Oil FC 1 (Rate-Time)	
1	1.00
2	1.00
3	1.00
4	1.00
5	1.00
6	1.00
7	1.00
8	1.00
9	1.00
10	1.00
11	1.00
12	1.00
13	1.00
14	1.00
15	1.00
16	1.00
17	1.00
18	1.00
19	1.00
20	1.00
21	1.00
22	1.00
23	1.00
24	1.00
25	1.00
26	1.00
27	1.00
28	1.00
29	1.00
30	1.00
31	1.00
32	1.00
33	1.00
34	1.00
35	1.00
36	1.00
37	1.00
38	1.00
39	1.00
40	1.00
41	1.00
42	1.00
43	1.00
44	1.00
45	1.00
46	1.00
47	1.00
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50	1.00
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55	1.00
56	1.00
57	1.00
58	1.00
59	1.00
60	1.00
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62	1.00
63	1.00
64	1.00
65	1.00
66	1.00
67	1.00
68	1.00
69	1.00
70	1.00
71	1.00
72	1.00
73	1.00
74	1.00
75	1.00
76	1.00
77	1.00
78	1.00
79	1.00
80	1.00
81	1.00
82	1.00
83	1.00
84	1.00
85	1.00
86	1.00
87	1.00
88	1.00
89	1.00
90	1.00
91	1.00
92	1.00
93	1.00
94	1.00
95	1.00
96	1.00
97	1.00
98	1.00
99	1.00
100	1.00

qi: 1.48359 m3/d, Feb, 1994

qf: 0.298859 m3/d, Oct, 2003

ddi(Har): 28.9059 CTD: 1630.9 m3

RR: 548.082 m3 Tot: 2178.98 m3

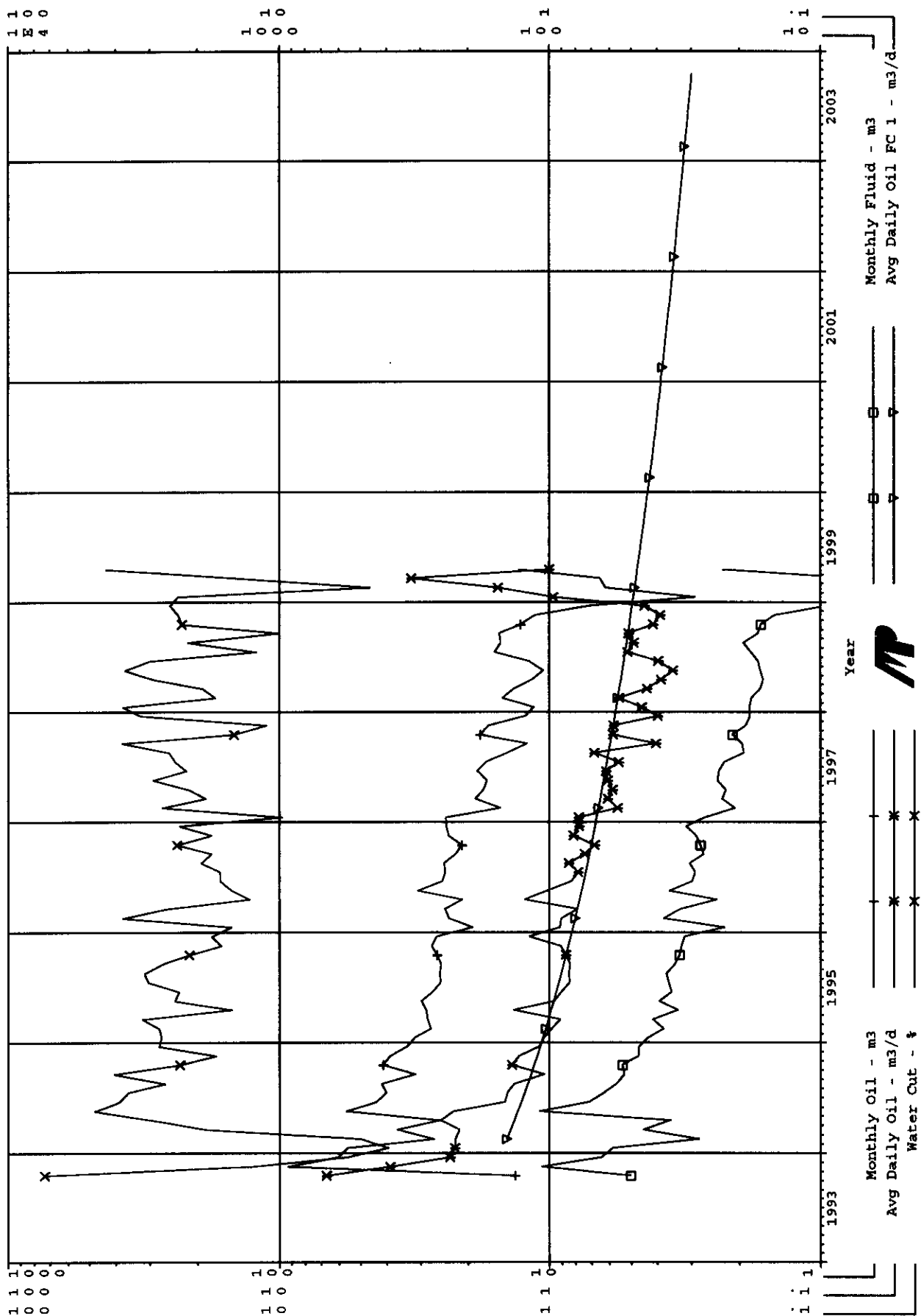
## Production Cums

Oil: 1630.9 m3

Gas: 0 E6m3

**Water: 548.4 m3**

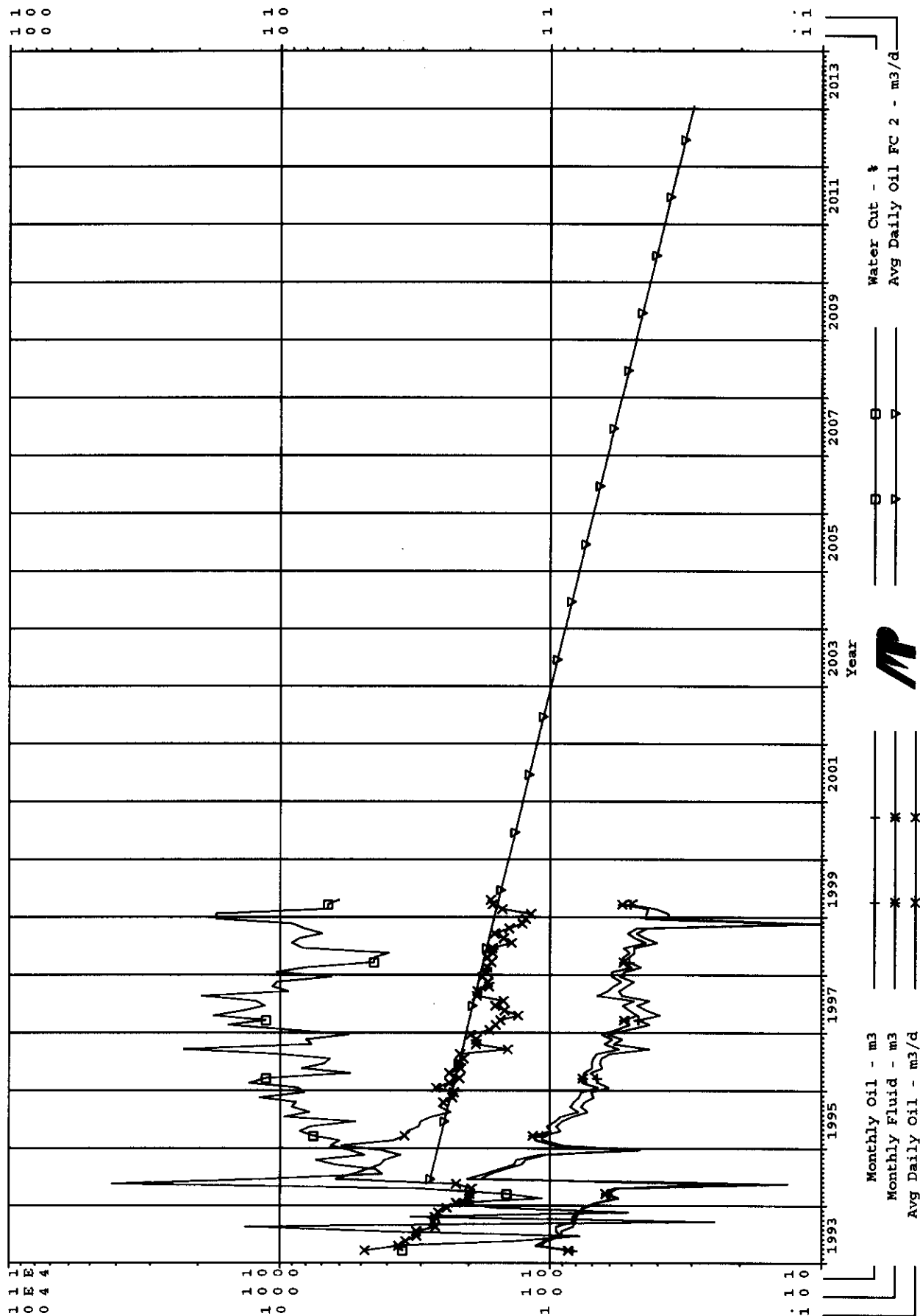
Cond: 0 m3



Operator:   
Field: 1   
Zone: 60I   
Type: Unkn   
Group: cro

Production Cums  
Oil: 5051.4 m3  
Gas: 0 B6m3  
Water: 415.5 m3  
Cond: 0 m3

Avg Daily Oil FC 2 (Rate-Time)  
 qi: 2.79393 m3/d, Jun, 1994  
 qf: 0.298263 m3/d, Jan, 2013  
 d1(Exp): 11.2948 CTD: 5051.4 m  
 PR: 3365.08 m3 Tot: 8416.48 m3

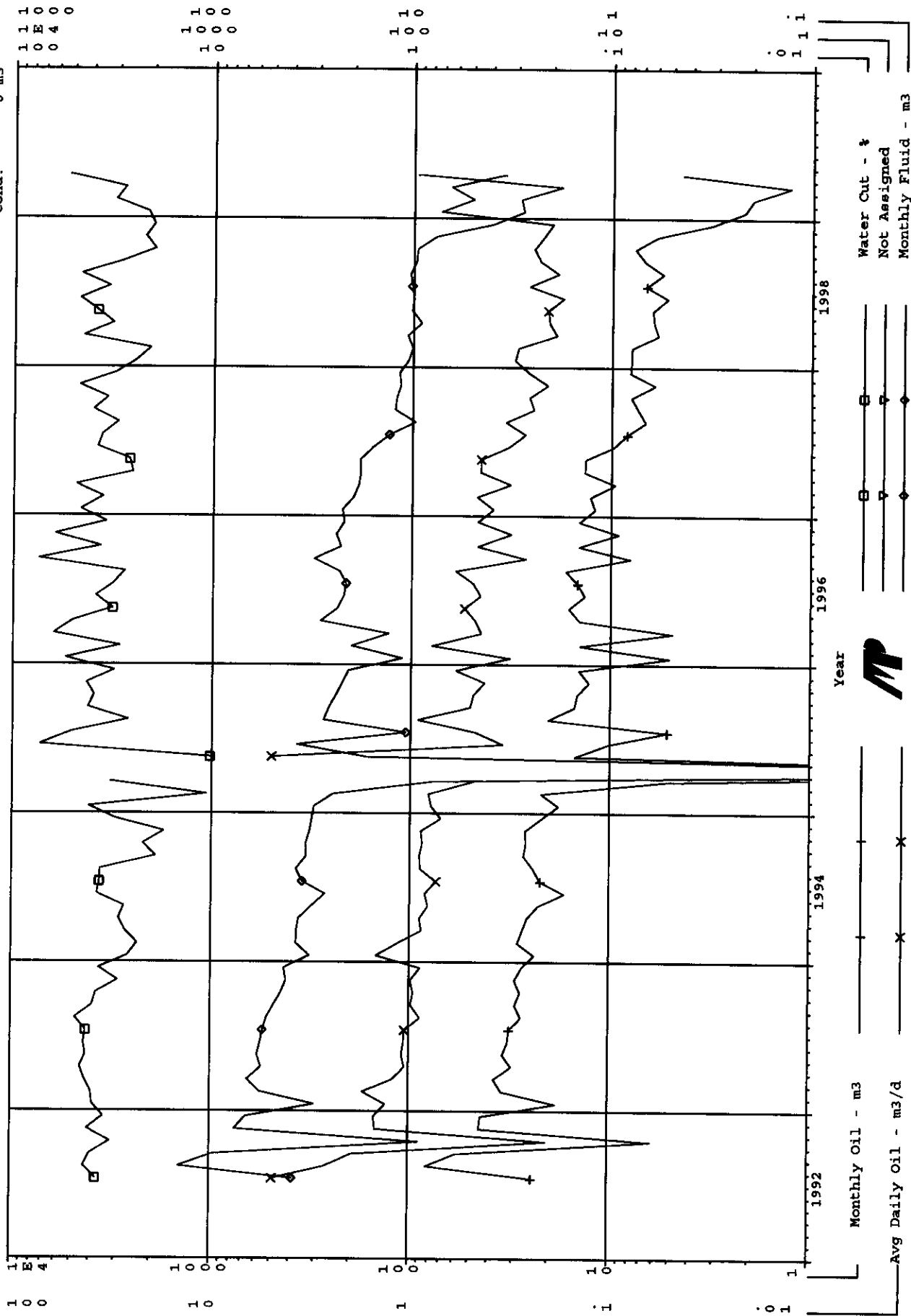




00/02-23-009-28W1/2 (Cromer Unit No. 1 COM 2-23-9-28W1) Data 07/92-04/99

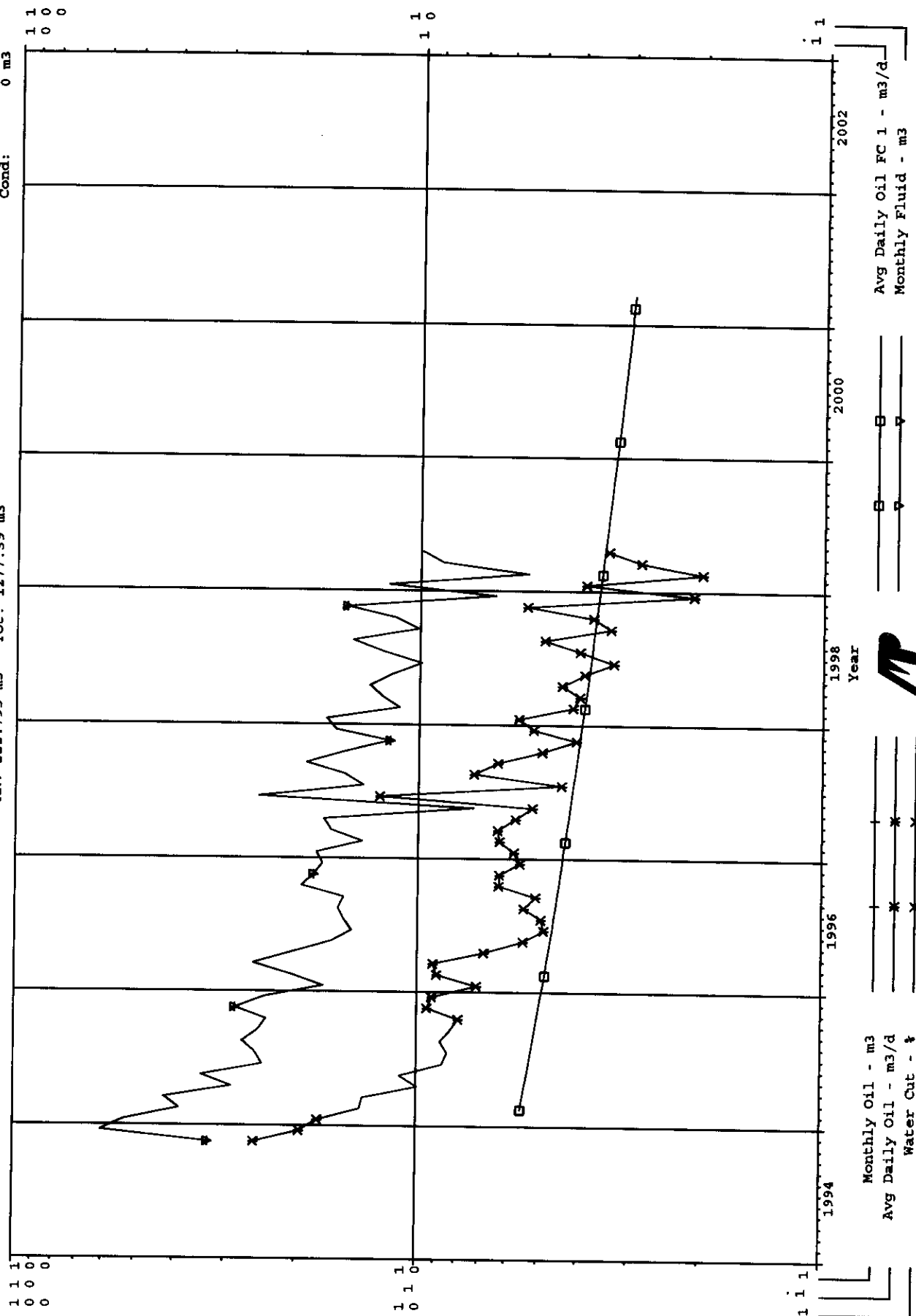
Operator:  
Field: 1  
Zone: 60I  
Type: Unknown  
Group: cromerul

Production Cums  
Oil: 1409.3 m3  
Gas: 0 E6m3  
Water: 846.3 m3  
Cond: 0 m3



Data 11/94-04/99

Cond: 0 m3

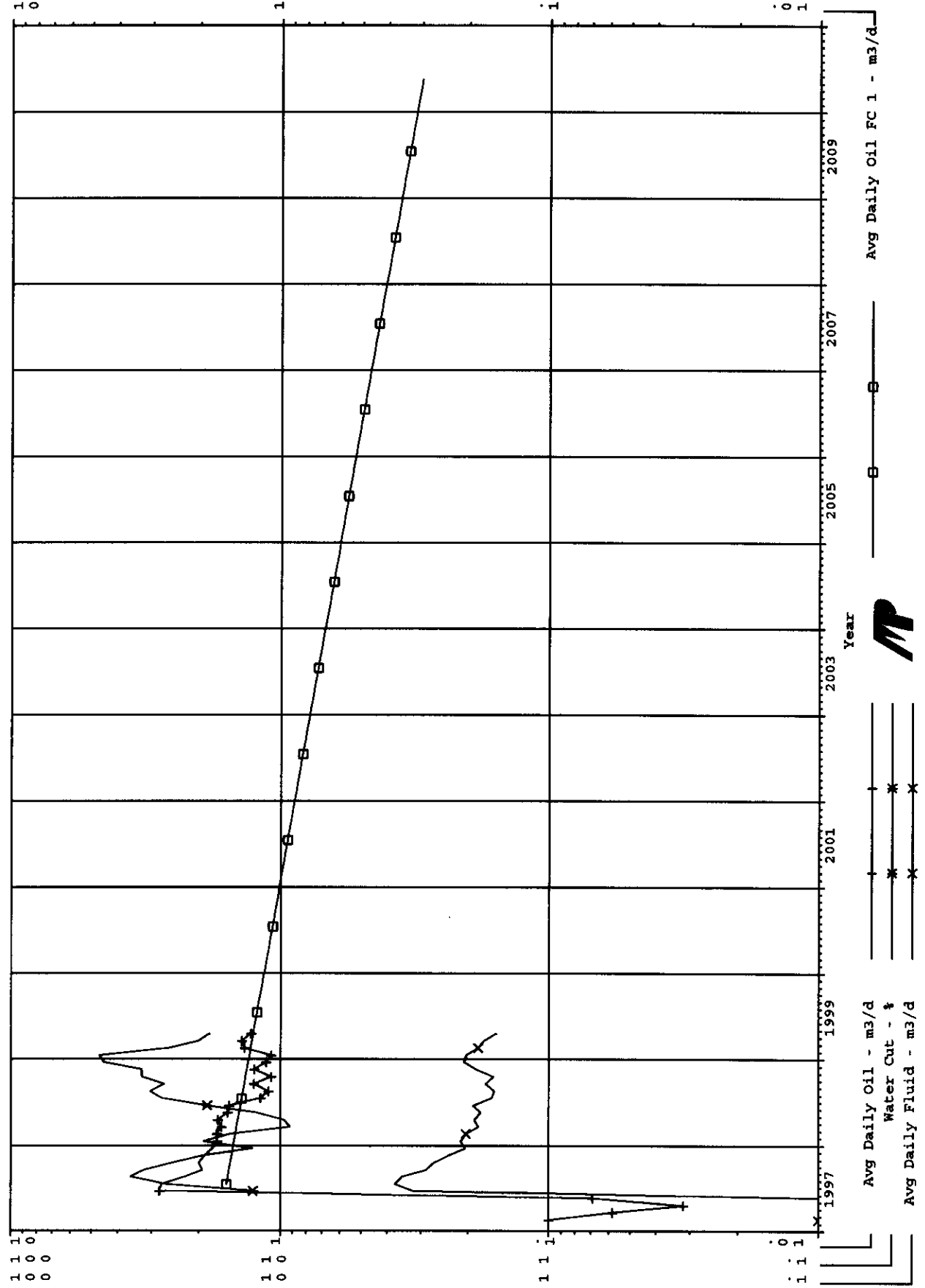


00/06-23-009-28W1/2 (Cromer Unit No. 1 COM 6-23-9-28W1) Data 02/97-04/99

Operator:  
Field: 1  
Zone: 601  
Type: Unknown  
Group: crulbakw

Avg Daily Oil FC 1 (Rate-Time)  
qi: 1.60019 m3/d, Jul, 1997  
qf: 0.299241 m3/d, May, 2010  
di (Exp): 12.1732 CTD: 1118.1 m3  
RR: 2669.41 m3 Tot: 3787.51 m3

Production Cums  
Oil: 1118.1 m3  
Gas: 0 E6m3  
Water: 362.8 m3  
Cond: 0 m3



## **ATTACHMENT NO.3**

### **1998 INDIVIDUAL WELL PRODUCTION DATA**

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 16110928W1 DAILY PROV 16-11-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.91	51.5	11.7	63.2	18.51	27	2.34				
02	1.85	50.0	5.4	55.4	9.75	27	2.05	2.0	0.23	24.0	3
03	1.75	54.3	5.3	59.6	8.89	31	1.92	1.95	0.22	24.0	11
04	1.73	51.8	6.4	58.2	11.0	30	1.94	1.66	0.33	24.0	20
05	1.67	50.2	7.2	57.4	12.54	30	1.91	1.68	0.31	24.0	11
06	0.94	28.1	15.5	43.6	35.55	30	1.45	1.68	0.31	24.0	15
07	1.73	50.7	6.7	57.4	11.67	29	1.96	2.18	0.27	24.0	26
08	2.22	64.3	6.0	70.3	8.53	29	2.42				
09	1.99	59.6	5.8	65.4	8.87	30	2.18	1.85	0.24	24.0	10
10	1.75	54.3	7.5	61.8	12.14	31	1.99	1.46	0.2	24.0	30
11	2.27	63.5	9.2	72.7	12.65	28	2.6	2.2	0.3	24.0	1
12	2.15	66.6	11.3	77.9	14.51	31	2.51	2.13	0.44	24.0	18
	1.83	644.9	98.0	742.9	13.19	353	2.1				

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 12120928W1 DAILY RE12-12-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.93	59.8	11.8	71.6	16.48	31	2.31				
02	1.86	50.3	4.9	55.2	8.88	27	2.04	2.01	0.21	24.0	3
03	1.74	54.0	4.9	58.9	8.32	31	1.9	1.92	0.2	24.0	11
04	1.71	51.3	5.9	57.2	10.31	30	1.91	1.66	0.3	24.0	20
05	1.68	50.3	6.5	56.8	11.44	30	1.89	1.68	0.28	24.0	11
06	1.75	52.6	6.5	59.1	11.0	30	1.97	1.69	0.28	24.0	15
07	1.64	48.0	6.2	54.2	11.44	29	1.85	1.1	0.3	24.0	31
08	1.19	35.7	7.5	43.2	17.36	30	1.44	1.17	0.33	24.0	1
09	0.71	21.4	5.0	26.4	18.94	30	0.88	1.0	0.3	24.0	10
10	0.96	24.0	7.7	31.7	24.29	25	1.27	1.04	0.33	24.0	7
11	1.07	15.0	4.9	19.9	24.62	14	1.42				
12	1.02	31.5	12.5	44.0	28.41	31	1.42	1.0	0.49	24.0	18
	1.46	493.9	84.3	578.2	14.58	338	1.71				

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 02140928W1 DAILY 2-14-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	2.18	67.7	13.5	81.2	16.63	31	2.62				
02	2.33	63.0	4.8	67.8	7.08	27	2.51	2.57	0.13	24.0	8
03	2.2	68.2	3.8	72.0	5.28	31	2.32	2.33	0.2	24.0	19
04	2.11	63.2	6.1	69.3	8.8	30	2.31	2.07	0.36	24.0	22
05	2.19	65.7	6.8	72.5	9.38	30	2.42	2.28	0.25	24.0	14
06	2.33	69.8	5.8	75.6	7.67	30	2.52	2.22	0.25	24.0	9
07	2.08	63.1	5.3	68.4	7.75	30	2.25	1.89	0.21	24.0	21
08	1.72	51.7	4.3	56.0	7.68	30	1.87	1.6	0.18	24.0	11
09	2.17	65.1	5.6	70.7	7.92	30	2.36	2.49	0.28	24.0	12
10	2.18	67.5	6.1	73.6	8.29	31	2.37	2.23	0.17	24.0	13
11	2.3	66.6	8.2	74.8	10.96	29	2.58	2.03	0.3	24.0	27
12	1.99	61.6	10.1	71.7	14.09	31	2.31	1.93	0.37	24.0	21
	2.15	773.2	80.4	853.6	9.42	360	2.37				

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

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WELL: 0614092881 DAILY 6-14-9-28 WPM (BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.37	42.6	40.6	83.2	48.8	31	2.68				
02	1.38	37.2	35.0	72.2	48.48	27	2.67				
03	1.33	41.2	39.5	80.7	48.95	31	2.6				
04	1.04	31.2	43.1	74.3	58.01	30	2.48	0.92	1.8	24.0	11
05	1.0	29.9	38.5	68.4	56.29	30	2.28	1.0	1.69	24.0	2
06	1.04	30.2	38.0	68.2	55.72	29	2.35				
07	1.22	37.1	40.9	78.0	52.44	30	2.57	1.38	1.86	24.0	12
08	1.22	36.6	37.8	74.4	50.81	30	2.48	0.89	1.34	24.0	21
09	0.91	27.2	31.8	59.0	53.9	30	1.97				
10	0.89	27.6	28.2	55.8	50.54	31	1.8	1.32	1.2	24.0	28
11	1.22	34.2	40.6	74.8	54.28	28	2.67	1.01	1.52	24.0	17
12	1.08	33.5	73.1	106.6	68.57	31	3.44	1.16	3.04	24.0	15
	1.14	408.5	487.1	895.6	54.39	358	2.5				



3.10.2.29 DATE: 01/22/99  
TIME: 13.90

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WELL: 1014092881 DAILY 10-14-9-28 BAKKEN

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.17	36.3	8.9	45.2	19.69	31	1.46				
02	1.17	31.7	4.4	36.1	12.19	27	1.34	1.27	0.09	24.0	13
03	1.13	35.1	2.1	37.2	5.65	31	1.2	1.27	0.08	24.0	23
04	1.19	35.7	3.1	38.8	7.99	30	1.29	1.27	0.31	24.0	25
05	0.99	29.8	6.9	36.7	18.8	30	1.22	0.52	0.3	24.0	20
06	0.7	21.0	7.0	28.0	25.0	30	0.93	1.27	0.32	24.0	25
07	1.24	37.7	7.3	45.0	16.22	30	1.48				
08	1.29	38.7	5.5	44.2	12.44	30	1.47	1.27	0.18	24.0	15
09	1.29	38.7	6.4	45.1	14.19	30	1.5	1.27	0.35	24.0	16
10	1.19	36.8	10.3	47.1	21.87	31	1.52				
11	0.95	27.5	10.4	37.9	27.44	29	1.31	0.7	0.32	24.0	12
12	0.71	22.1	10.0	32.1	31.15	31	1.04	0.71	0.28	24.0	26
	1.09	391.1	82.3	473.4	17.38	360	1.31				

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 11140928W1 DAILY PROV 11-14-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.28	39.6	6.2	45.8	13.54	31	1.48	1.43	0.25	24.0	23
02	1.3	35.0	5.2	40.2	12.94	27	1.49	1.41	0.25	24.0	1
03	1.39	43.0	2.9	45.9	6.32	31	1.48	1.11	0.54	24.0	30
04	1.23	36.8	6.6	43.4	15.21	30	1.45	1.36	0.28	24.0	17
05	1.31	39.3	7.2	46.5	15.48	30	1.55	1.3	0.33	24.0	7
06	1.41	42.3	6.4	48.7	13.14	30	1.62	1.35	0.28	24.0	2
07	1.01	30.7	6.7	37.4	17.91	30	1.23	0.99	0.29	24.0	5
08	1.2	36.1	8.5	44.6	19.06	30	1.49	1.19	0.38	24.0	2
09	1.24	37.1	7.0	44.1	15.87	30	1.47	1.22	0.29	24.0	4
10	1.19	37.0	8.3	45.3	18.32	31	1.46	1.29	0.28	24.0	4
11	1.31	37.9	7.8	45.7	17.07	29	1.58	1.3	0.23	24.0	24
12	1.29	11.6	2.1	13.7	15.33	9	1.52				
	1.26	426.4	74.9	501.3	14.94	338	1.48				

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 13140928W1 DAILY PROV 13-14-9-28 MPH

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.46	11.4	6.9	18.3	37.7	25	0.73				
02	0.55	14.9	3.1	18.0	17.22	27	0.67				
03	0.44	13.5	3.2	16.7	19.16	31	0.54				
04	0.39	11.6	4.7	16.3	28.83	30	0.54				
05	0.35	10.5	6.2	16.7	37.13	30	0.56				
06	0.4	11.9	5.1	17.0	30.0	30	0.57				
07	0.51	15.9	2.2	18.1	12.15	31	0.58				
08	0.49	15.1	4.2	19.3	21.76	31	0.62				
09	0.51	15.3	1.7	17.0	10.0	30	0.57				
10	0.41	12.8	3.8	16.6	22.89	31	0.54				
11	0.39	11.3	3.5	14.8	23.65	29	0.51				
12	0.44	7.1	2.4	9.5	25.26	16	0.59				
	0.44	151.3	47.0	198.3	23.7	341	0.58				

3.10.2.29 DATE: 11/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 1414092881 DAILY PROV 14-14-9-28 WPM (BKN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	VTR	HRS	DATE
01	1.71	53.0	6.1	59.1	10.32	31	1.91				
02	1.7	46.0	4.0	50.0	8.0	27	1.85	1.84	0.1	24.0	18
03	1.65	51.0	2.4	53.4	4.49	31	1.72				
04	1.71	51.2	2.4	53.6	4.48	30	1.79	1.64	0.05	24.0	28
05	1.62	48.7	2.0	50.7	3.94	30	1.69	1.57	0.19	24.0	24
06	1.63	49.0	4.4	53.4	8.24	30	1.78				
07	1.42	40.2	4.0	44.2	9.05	28	1.56	1.45	0.19	24.0	1
08	1.48	44.4	4.1	48.5	8.45	30	1.62	1.46	0.15	24.0	24
09	1.6	48.0	3.6	51.6	6.98	30	1.72	1.55	0.13	24.0	24
10	1.41	43.8	3.9	47.7	8.18	31	1.54	1.42	0.14	24.0	23
11	1.43	10.1	1.0	11.1	9.01	7	1.58	1.3	0.11	24.0	6
12	1.23	36.8	7.6	44.4	17.12	30	1.48	1.15	0.27	24.0	29
	1.56	522.2	45.5	567.7	8.01	335	1.69				

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 0223092881 DAILY 2-23-9-28 WPM (BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.31	8.0	2.6	10.6	24.53	26	0.41				
02	0.3	8.0	2.1	10.1	20.79	27	0.37				
03	0.19	5.9	4.8	10.7	44.86	31	0.35				
04	0.21	6.2	2.9	9.1	31.87	30	0.3				
05	0.21	6.3	3.9	10.2	38.24	30	0.34				
06	0.18	5.3	4.7	10.0	47.0	30	0.33				
07	0.26	6.8	3.4	10.2	33.33	26	0.39				
08	0.19	5.6	4.8	10.4	46.15	30	0.35				
09	0.23	6.9	2.8	9.7	28.87	30	0.32				
10	0.25	7.7	1.9	9.6	19.79	31	0.31				
11	0.22	6.0	1.7	7.7	22.08	27	0.29	0.22	0.06	24.0	1
12	0.2	3.2	0.8	4.0	20.0	16	0.25				
	0.23	75.9	36.4	112.3	32.41	334	0.34				

3.10.2.29 DATE: 01/22/99  
TIME: 13.90

TUNDRA OIL AND GAS LTD.  
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WELL: 0423092881 DAILY 4-23-9-28 MPW(BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.57	17.0	0.0	17.0	0.0	30	0.57				
02	0.41	11.2	0.0	11.2	0.0	27	0.41				
03	0.4	12.4	0.0	12.4	0.0	31	0.4				
04	0.44	13.3	0.0	13.3	0.0	30	0.44				
05	0.39	11.7	0.0	11.7	0.0	30	0.39				
06	0.33	9.9	0.0	9.9	0.0	30	0.33				
07	0.4	12.4	0.0	12.4	0.0	31	0.4				
08	0.49	14.7	0.0	14.7	0.0	30	0.49				
09	0.34	10.1	0.0	10.1	0.0	30	0.34				
10	0.37	11.5	0.0	11.5	0.0	31	0.37				
11	0.54	15.2	0.0	15.2	0.0	28	0.54	0.44	0.0	24.0	1
12	0.21	6.5	0.0	6.5	0.0	31	0.21				
	0.41	145.9	0.0	145.9	0.0	359	0.41				

3-10-2-29 DATE: 07/22/99  
TIME: 13.90

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WELL: 0623092881 DAILY 6-23-9-28 WPM (BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.72	53.2	12.7	65.9	19.27	31	2.13				
02	1.72	46.4	8.4	54.8	15.33	27	2.03	1.85	0.22	24.0	18
03	1.65	51.3	5.2	56.5	9.2	31	1.82				
04	1.71	51.3	5.5	56.8	9.68	30	1.89	1.59	0.23	24.0	28
05	1.57	47.0	6.6	53.6	12.31	30	1.79	1.49	0.46	24.0	24
06	1.55	46.6	10.7	57.3	18.67	30	1.91				
07	1.18	36.7	13.9	50.6	27.47	31	1.63	1.09	0.66	24.0	10
08	1.11	33.3	14.5	47.8	30.33	30	1.59	1.1	0.59	24.0	24
09	1.25	37.6	13.9	51.5	26.99	30	1.72	1.2	0.55	24.0	24
10	1.08	33.5	16.2	49.7	32.6	31	1.6	1.05	0.56	24.0	23
11	1.25	35.0	17.0	52.0	32.69	28	1.86	1.21	0.56	24.0	1
12	1.13	35.1	28.9	64.0	45.16	31	2.06	1.04	1.0	24.0	29
	1.41	507.0	153.5	660.5	23.24	360	1.83				

**ATTACHMENT NO.4**

**1999 INDIVIDUAL WELL PRODUCTION DATA**



3.10.2.29 DATE: 03/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
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WELL: 16110928W1 DAILY PROV 16-11-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.92	59.6	12.7	72.3	17.57	31	2.33	1.99	0.34	24.0	10
02	1.9	51.2	8.1	59.3	13.66	27	2.2	1.71	0.4	24.0	26
03	1.62	50.2	10.0	60.2	16.61	31	1.94	1.55	0.48	24.0	9
04	1.55	37.1	6.8	43.9	15.49	24	1.83				
	-----	-----	-----	-----	-----	-----	-----				
	1.75	198.1	37.6	235.7	15.95	113	2.09				

3.10.2.29 DATE: 05/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
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WELL: 12120928W1 DAILY RE12-12-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.9	27.9	14.5	42.4	34.2	31	1.37	0.93	0.39	24.0	10
02	0.99	26.6	12.1	38.7	31.27	27	1.43	1.14	0.31	24.0	26
03	0.77	23.9	5.4	29.3	18.43	31	0.95	0.62	0.23	24.0	9
04	0.78	22.7	3.7	26.4	14.02	29	0.91	1.21	0.19	24.0	22
	0.86	101.1	35.7	136.8	26.1	118	1.16				

3.10.2.29 DATE: 03/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
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WELL: 02140928W1 DAILY 2-14-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.91	59.3	12.2	71.5	17.06	31	2.31	1.99	0.38	24.0	17
02	1.98	53.5	9.8	63.3	15.48	27	2.34	2.0	0.38	24.0	11
03	1.8	55.8	6.1	61.9	9.85	31	2.0	1.59	0.19	24.0	15
04	1.82	52.8	4.2	57.0	7.37	29	1.97	1.94	0.26	24.0	10
	1.88	221.4	32.3	253.7	12.73	118	2.15				

3.10.2.29 DATE: 10/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
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Year: 1999

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WELL: 0614092881 DAILY 6-14-9-28 WPM (BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.0	30.9	88.9	119.8	74.21	31	3.86	0.94	2.53	24.0	29
02	1.15	31.1	60.7	91.8	66.12	27	3.4	1.16	2.33	24.0	1
03	1.01	31.4	49.9	81.3	61.38	31	2.62	1.02	2.05	24.0	29
04	1.03	29.9	35.1	65.0	54.0	29	2.24	1.19	2.1	24.0	26
	1.04	123.3	234.6	357.9	65.55	118	3.03				

3.10.2.29 DATE: 05/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
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WELL: 1014092881 DAILY 10-14-9-28 BAKKEN

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.7	21.6	9.2	30.8	29.87	31	0.99	0.72	0.29	24.0	20
02	0.7	19.0	7.0	26.0	26.92	27	0.96	0.7	0.24	24.0	18
03	0.71	22.1	5.2	27.3	19.05	31	0.88	0.71	0.24	24.0	19
04	0.7	20.3	4.1	24.4	16.8	29	0.84	0.69	0.24	24.0	19
	0.7	83.0	25.5	108.5	23.5	118	0.92				

1

**TUNDRA OIL AND GAS LTD.**  
**Fluid Production Report**  
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WELL: 11140928W1 DALY PROV 11-14-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	SHUT IN										
02	SHUT IN										
03	SHUT IN										
04	SHUT IN										
	0.0	0.0	0.0	0.0	0.0						

3.10.2.29 DATE: 03/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
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WELL: 13140928J1 DAILY PROV 13-14-9-28 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.97	2.9	0.9	3.8	23.68	3	1.27				
02	1.55	6.2	0.3	6.5	4.62	4	1.63				
03	3.25	6.5	1.1	7.6	14.47	2	3.8				
04	1.0	13.0	10.0	23.0	43.48	13	1.77				
	1.3	28.6	12.3	40.9	30.07	22	1.86				

3.10.2.29 DATE: 03/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
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WELL: 1414092881 DAILY PROV 14-14-9-28 WPM (BKN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.18	36.5	7.6	44.1	17.23	31	1.42	1.45	0.09	24.0	26
02	1.5	40.5	2.9	43.4	6.68	27	1.61	1.61	0.16	24.0	22
03	1.63	50.5	3.6	54.1	6.65	31	1.75	1.59	0.18	24.0	24
04	1.66	48.0	3.1	51.1	6.07	29	1.76	1.92	0.19	24.0	25
	-----	-----	-----	-----	-----	-----	-----				
	1.49	175.5	17.2	192.7	8.93	118	1.63				



3.10.2.29 DATE: 05/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
Year: 1999

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WELL: 0223092881 DAILY 2-23-9-28 WPM (BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.73	2.2	0.6	2.8	21.43	3	0.93				
02	0.5	2.0	0.9	2.9	31.03	4	0.73				
03	0.65	1.3	0.5	1.8	27.78	2	0.9				
04	0.35	4.5	5.1	9.6	53.13	13	0.74				
	0.45	10.0	7.1	17.1	41.52	22	0.78				

3.10.2.29 DATE: 06/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
Year: 1999

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WELL: 0423092881 DAILY 4-23-9-28 WPM(BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	VTR	HRS	DATE
01	0.39	12.0	0.0	12.0	0.0	31	0.39				
02	0.2	5.4	0.0	5.4	0.0	27	0.2				
03	0.28	8.8	0.0	8.8	0.0	31	0.28				
04	0.34	9.9	0.0	9.9	0.0	29	0.34				
	0.31	36.1	0.0	36.1	0.0	118	0.31				

3.10.2.29 DATE: 03/21/99  
TIME: 10.72

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
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WELL: 0623092881 DAILY 6-23-9-28 WPM (BAKKEN)

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	# DAYS OF PROD./MTN	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.08	33.6	29.5	63.1	46.75	31	2.04	1.4	0.52	24.0	26
02	1.36	36.7	12.8	49.5	25.86	27	1.83	1.38	0.49	24.0	22
03	1.39	43.2	10.9	54.1	20.15	31	1.75	1.36	0.52	24.0	24
04	1.29	37.3	8.4	45.7	18.38	29	1.58	1.08	0.38	24.0	23
	1.28	150.8	61.6	212.4	29.0	118	1.8				

**ATTACHMENT NO.5**

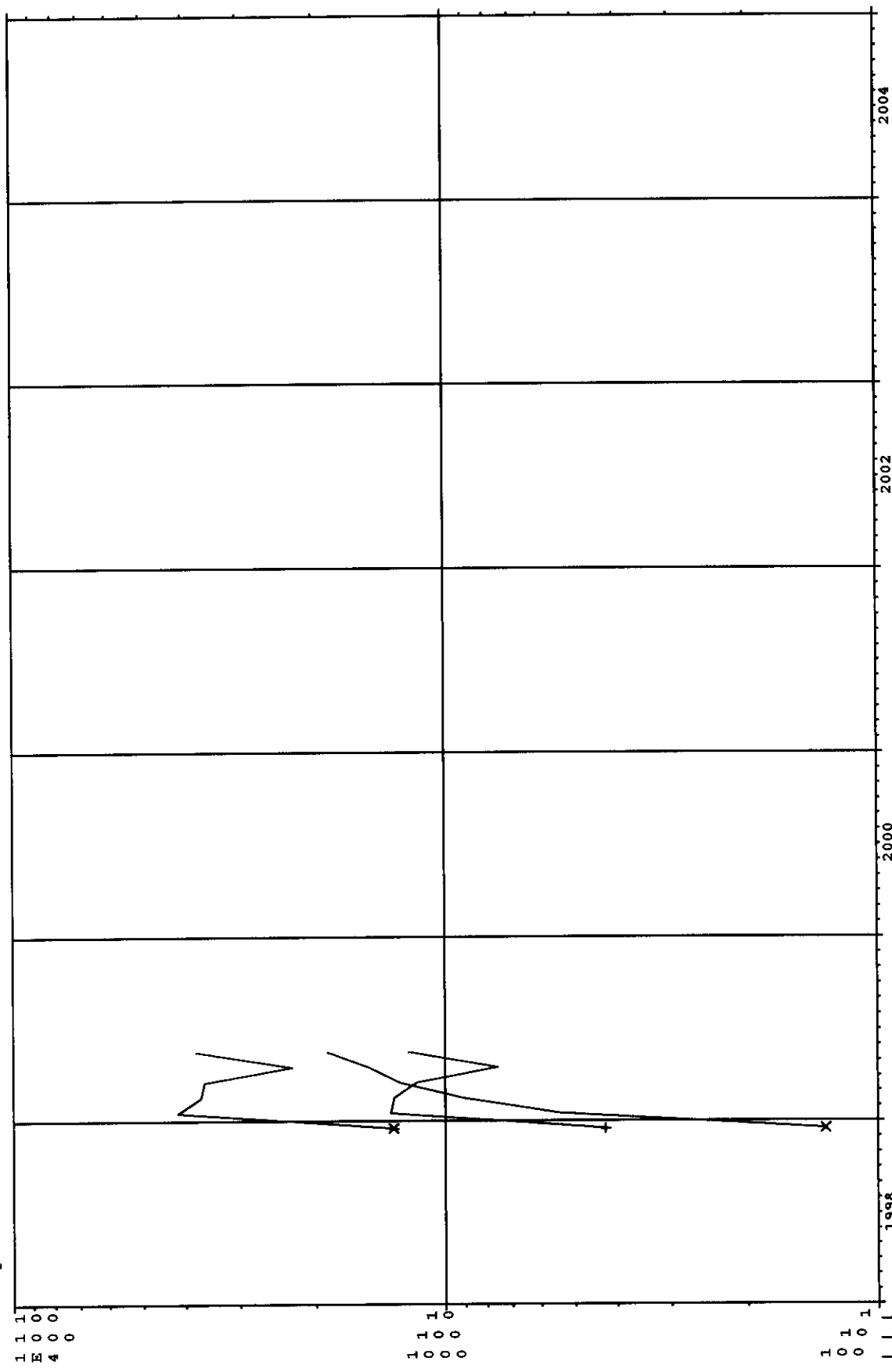
**INJECTION PERFORMANCE PLOT WELL 11-14-9-28**

00/11-14-009-28W1/0 (Crown Unit No. 1 Prov. WIW 11-14-9-28W1) Data 10/93-05/99

Operator:  
Field: 1  
Zone: 60I  
Type: Unknown  
Group: crulbakw

Avg Daily Oil FC 1 (Rate-Time)  
qi: 4.82087 m3/d, Apr, 1994  
qf: 0.152352 m3/d, Feb, 1999  
di(Exp): 50.4711 CTD: 1443.7 m3  
RR: 1683.36 m3 Tot: 3127.06 m3

Production Cums  
Oil: 4179.8 m3  
Gas: 0 E6m3  
Water: 569.4 m3  
Cond: 0 m3



Year



Cal Day Water Inj - m3/d  
Month Water Inj - m3  
Cum Water Inj - m3

**ATTACHMENT NO.6**

**HISTORICAL INJECTION DATA FOR WELL 11-14-9-28**

## Production Report

Group	: crulbakw	Date	: June 16, 1999 4:23:53 pm
Well	: Cromer Unit No. 1 Prov. WTW 11-14-9-28W1	User	: GEORGE
	: 00/11-14-009-28W1/0		
Hist.Data	: 10/93-05/99	On Prod	: 02/09
Operator	:	Status	: Unknown
Field	: 1	Zone	: 60I

### Production Data from December, 1998 to May, 1999

Year	Cal Day Water Inj m3/d	Month Water Inj m3	Cum Water Inj m3
Dec., 1998	4.25484	131.9	131.9
Jan., 1999	13.4	415.4	547.3
Feb., 1999	13.1464	368.1	915.4
Mar., 1999	11.6516	361.2	1276.6
Apr., 1999	7.54333	226.3	1502.9
May., 1999	12.2032	378.3	1881.2

October 30, 1998

Mr. Brad Thiessen  
Tundra Oil and Gas Ltd.  
1111 - One Lombard Place  
Winnipeg MB R3B 0X4

Dear Brad:

**Re: Cromer Unit No. 1  
Unit Agreement**

The Branch is in receipt of a copy of the signed execution pages for each owner in Cromer Unit No. 1 and has registered the unit agreement. The effective date for Cromer Unit No. 1 is November 1, 1998.

Water injection into the unit may commence on November 1, 1998 in accordance with the conditions of Waterflood Order No. 6.

If you have any questions please don't hesitate to call the undersigned at 945-6574.

Yours truly,

A handwritten signature in black ink, consisting of a large, stylized 'J' and 'F' intertwined.

John N. Fox, P.Eng.  
Chief Petroleum Engineer

cc: Administration



CROMER UNIT NO. 1

**UNIT AGREEMENT**

**PETROLEUM DOCUMENT REGISTRY**

Document No. 98-321

Registered: October 30, 1998

C.D. Martineau

Petroleum Registrar

UNIT AGREEMENT  
CROMER UNIT NO. 1

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**UNIT AGREEMENT**  
**CROMER UNIT NO. 1**

WHEREAS the Parties own Royalty Interests and Working Interests, or either of them, in the Unitized Zone;

AND WHEREAS the Parties desire that the Unitized Zone be developed, produced and operated as a Unit, as hereinafter provided;

NOW THEREFORE in consideration of the covenants herein contained, the Parties agree as follows:

**ARTICLE I:     DEFINITIONS**

**101.     Definitions**

In this agreement:

- (a)     "Effective Date" means the time and date referred to in Article XIV;
- (b)     "Lease" means an instrument granting a Working Interest in any lands in the Unit Area;
- (c)     "Outside Substances" means any substances initially obtained from any source other than the Unitized Zone or any Unitized Substances with respect to which royalty has been paid;
- (d)     "Party" means a person who is bound by this Agreement;
- (e)     "Petroleum Branch" means the Department of Energy and Mines, Petroleum Branch established under The Oil and Gas Act;
- (f)     "Petroleum Substances" means petroleum, natural gas and related hydrocarbons (except coal) and all substances whether gaseous, liquid or solid, which are produced in association therewith, or any of them;
- (g)     "Royalty Interest" means
  - i)       an ownership, fee simple, or similar estate in Petroleum Substances in the Unitized Zone, or
  - ii)      a right to a share of Petroleum Substances produced from the Unitized Zone, to a share of the proceeds from the sale of such Petroleum Substances, or to a payment based on the quantity or value of such Petroleum Substances, but does not include a Working Interest, the interest of a purchaser or such Petroleum Substances after production, or a mortgage, charge or like interest granted as security in a financial transaction;
- (h)     "Royalty Owner" means a Party owning a Royalty Interest in or in respect of Unitized Substances;
- (i)     "Spacing Unit" means the area allocated to a well by the Petroleum Branch with respect to the Unitized Zone for the purpose of drilling for or producing Petroleum Substances;
- (j)     "Tract" means a parcel of land described and given a Tract number in Exhibit "A" and shown outlined on Exhibit "B";
- (k)     "Tract Participation" means the Participation percentage allocated to a Tract pursuant to Article VI and set forth in Exhibit "A";
- (l)     "Unit Area" means the lands described in Exhibit "A" and shown outlined on Exhibit "B";
- (m)     "Unit Operations" means any operations or activities undertaken in connection with the Unitized Zone, the production or handling of Unitized Substances or the installation, operation, maintenance or removal of equipment or facilities, insofar as such operations or activities have been authorized or provided for under this agreement or the Unit Operating Agreement
- (n)     "Unit Operator" means the person who is so designated under the Unit Operating Agreement;
- (o)     "Unit Operating Agreement" means the agreement entitled "Unit Operating Agreement - Cromer Unit No. 1" entered into by the Working Interest Owners;
- (p)     "Unitized Zone" means the Bakken Formation of the Mississippian Age underlying the lands within the Unit Area as same is shown on the compensated neutron litho-density log of the Tundra Daly 11-14-9-28 WPM well in 11-14-9-28 WPM, in the Province of Manitoba between the intervals of 836.0

metres and 843.0 metres as measured from the kelly bushing at 11-14-9-28 WPM and shown on Exhibit "C";

- (q) "Unitized Substances" means Petroleum Substances in or obtained from the Unitized Zone;
- (r) "Working Interest" means any interest which entitles the owner thereof to produce and dispose of, or to participate in the production and disposition of, Petroleum Substances from the Unitized Zone, and with which is associated a responsibility to bear all or a portion of the costs of recovering such Petroleum Substances;
- (s) "Working Interest Owner" means a party owning a Working Interest in or in respect of Unitized Substances;
- (t) "Minister" means the member of the Executive Council charged by the Lieutenant Governor in Council with the administration of The Oil and Gas Act of Manitoba.

## ARTICLE II: EXHIBITS

### 201. Exhibits

The following exhibits are attached to and incorporated in this agreement:

- (a) Exhibit "A" which numbers and describes each Tract and sets forth its Tract Participation, the names of the Working Interest Owners and their respective shares of the Working Interest, together with the names of the Royalty Owners and their respective shares of the Royalty Interest;
- (b) Exhibit "B" which is a plan of the Unit Area identifying the Tracts;
- (c) Exhibit "C" which is a reproduction of a portion of the compensated neutron litho-density log referred to in Subclause 101(p) hereof.

### 202. Exhibits Correct

Each exhibit shall be deemed conclusively to be correct to the effective time of a revision or correction thereof as herein provided.

### 203. Correction of Exhibits

If any mistake or mechanical error occurs in an exhibit, Unit Operator may, or upon request of the Working Interest Owners shall, prepare a corrected exhibit but the data used in establishing Tract Participation shall not be re-evaluated.

### 204. Effective Time

Any corrected exhibit prepared on or before the Effective Date or within ninety (90) days thereafter shall be effective on the Effective Date. Any corrected exhibit prepared after the said ninety (90) days shall be effective at 8:00 a.m. on the first day of the calendar month next following its preparation or on such other date as is determined by the Working Interest Owners.

### 205. Supplying of Exhibits

Each time that an exhibit is revised or corrected pursuant to this agreement, Unit Operator shall supply the Petroleum Branch with two copies and shall supply each Working Interest Owner with the number of copies of the exhibit it requests. Each Working Interest Owner shall supply each of its Royalty Owners, excepting the Crown, with a copy thereof.

### 206. Form of Revised or Corrected Exhibits

Exhibits that are revised or corrected shall show the effective time of the revision or correction and shall be numbered consecutively.

### ARTICLE III: UNITIZATION AND EFFECT

301. Unitization

On and after the Effective Date the interests of each Royalty Owner and of each Working Interest Owner in the Unitized Substances and in the Unitized Zone are hereby unitized, in accordance with the provisions of this agreement.

302. Personal Property Excepted

All lease and well equipment heretofore or hereafter placed by any of the Working Interest Owners on lands comprised in the Unit Area shall be deemed conclusively to be and shall remain personal property belonging to and may be removed by the Working Interest Owners. The Working Interest Owners' rights and interests therein are set forth in the Unit Operating Agreement.

303. Continuation of Leases

All Unit Operations and all production of Unitized Substances shall, except for the purpose of calculating payments to Royalty Owners, be deemed conclusively to be operations upon or production from all of the Unitized Zone in each Tract, and such operations or production shall continue in force and effect each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances as if such operations had been conducted on, or a well had been drilled and was producing from each Tract or Spacing Unit, or portion thereof, in the Unit Area.

If from time to time during the term of this Agreement the production of Unitized Substances and the conduct of other Unit Operations is temporarily interrupted or suspended:

(a) for any period not exceeding ninety (90) consecutive days or

(b) for any period during which an event of force majeure contemplated by Clause 1305 is in effect,

then, for the purposes of this Clause 303, Unitized Substances shall be deemed to have been produced throughout any such period.

304. Leases Amended

Each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances is hereby amended only to the extent necessary to make it conform to this agreement.

305. Ratification of Leases

Except for a Lease in respect of which a royalty Owner is involved in a court action which has been commenced and is pending on the Effective Date, each Royalty Owner hereby ratifies each Lease, as amended by this agreement, to which it is a party, and hereby confirms that no notice of default has been given and remains outstanding with respect to any such Lease, and that each Lease is in effect as of the Effective Date. The provisions of this Clause 305 do not constitute a waiver, and shall not give rise to an estoppel, of any right to pursue the enforcement of any outstanding obligation under any such Lease.

306. Effect of Unitization on Titles

Nothing in this agreement, nor the Unit Operating Agreement shall be construed as a transfer or exchange of any interest in the Leases, Tracts or Unitized Zone, or in the Unitized Substances before production thereof.

307. Name

The name of the Unit hereby constituted is "Cromer Unit No. 1".

308. Equipment and Facilities

All equipment and facilities used in connection with the Unit Operations and heretofore or hereafter installed, affixed or constructed by any of the Working Interest Owners on or in lands within the Unit Area are and shall remain the personal property of the Working Interest Owners, or such of them as may from time to time have an interest therein, and, except as otherwise provided in Clause 1503, no interest in any such equipment and facilities shall vest in the royalty Owners by virtue of the provisions of this Agreement.

#### ARTICLE IV: AUTHORITY TO WORKING INTEREST OWNERS

401. Operations

The Working Interest Owners are hereby granted the right to develop and operate the Unitized Zone without regard to the provisions of the Leases or the boundary lines of the Tract or Spacing Units in such manner and by such means and methods as the Working Interest Owners consider appropriate. Without limiting the generality of the foregoing, the Working Interest Owners shall have the right to inject any substance or combination of substances into the Unitized Zone and to convert and use as injection wells any wells now existing or hereafter drilled into the Unitized Zone.

402. Delegation

The Working Interest Owners may delegate to Unit Operator any of the rights and powers herein or otherwise granted to them.

403. Vote of Working Interest Owners

Any matter to be determined under this agreement by the Working Interest Owners may be determined by vote of the parties to the Unit Operating Agreement as prescribed therein.

#### ARTICLE V: INCLUSION AND QUALIFICATION OF TRACTS

501. Tracts Included on Effective Date

The Tracts included in the Unit Area as of the Effective Date are those Tracts which are qualified under Clause 502:

- (a) before the Effective Date; or
- (b) on or within ninety (90) days after the Effective Date.

502. Qualification of Tracts

A Tract is qualified for inclusion in the Unit Area when its title has been approved by the Working Interest Owners under Clause 1102 and when:

- (a) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of one hundred percent (100%) of the Royalty Interest therein have become Parties; or
- (b) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of less than one hundred percent (100%) of the Royalty Interest therein have become Parties, and such owners of Working Interests agree, if required by the other Working Interest Owners, to indemnify the other Working Interest Owners in a form and manner satisfactory to them for any loss or damages that may be suffered by such other Working Interest Owners in respect of claims and demands that, because of the inclusion of the Tract in the Unit Area, may be made by those owners of Royalty Interests in the Tract who have not become Parties; or
- (c) owners of the Working Interests therein have agreed with the owners of Working Interests then Parties and parties to the Operating Agreement as to the basis on which the Tract shall become qualified, where the Tract cannot be qualified pursuant to Subclause (a) or (b) of this Clause.

503. Revision of Exhibits

Within one hundred twenty (120) days after the Effective Date the exhibits shall be revised, if necessary, to set out only those Tracts included in the Unit Area under this Article. The revised Exhibit "A" shall set forth the Tract Participation of the Tracts recalculated on the same basis and using the same data as that used in the calculation of Tract Participation in the original Exhibit "A" and so that their summation is one hundred percent (100%). The exhibits as so revised shall be effective as of the Effective Date.

## ARTICLE VI: TRACT PARTICIPATION

### 601. Tract Participation

Each Tract has the Tract Participation ascribed to it in Exhibit "A".

## ARTICLE VII: ALLOCATION OF UNITIZED SUBSTANCES PRODUCED

### 701. Allocation to Tracts

Subject to Clauses 801 and 802 the Unitized Substances when produced shall be allocated to the Tracts in accordance with their Tract Participation. The amount of Unitized Substances allocated to each Tract, and only that amount, regardless of whether it be more or less than the amount of actual production of Unitized Substances from the well or wells, if any, on the Tract, shall be deemed conclusively to have been produced from the Tract.

### 702. Allocation Among Parties

The Unitized Substances allocated to a Tract shall be further allocated among the Working Interest Owners thereof in accordance with their respective percentage Working Interests in the Tract as set forth in Exhibit "A", and the Working Interest Owners of each Tract shall account to the Royalty Owners of such Tract for any royalty payable or deliverable to such Royalty Owners in respect of the Unitized Substances allocated to such Tract.

### 703. Calculation of Royalty

The Working Interest Owners of each Tract shall calculate royalty on the Unitized Substances allocated to the Tract at the applicable rate under the Lease, other agreement or instrument relating to the Tract. The Royalty Owners of each Tract agree to accept payment of royalty so calculated in satisfaction of the obligation of a Working Interest Owner to make royalty payments on Unitized Substances under the Lease, agreement or other instrument covering such Tract; but a lessee under a Lease shall not be relieved from making payment of royalty to its lessor if payment is not made by the Working Interest Owner as aforesaid. In calculating royalty on residue gas, sulphur and fluid hydrocarbons, or any of them, obtained by processing Unitized Substances, other than crude oil, by compression, absorption or other plant extraction or stabilization, proper allowances shall be made for costs, expenses and charges, including a reasonable return on investment, incurred in or attributable to gathering and processing the Unitized Substances.

### 704. Taking Unitized Substances in Kind

The Unitized Substances allocated to a Tract shall be delivered in kind at the time and place of production to the Working Interest Owners entitled thereto who may, if there is no interference with Unit Operations by them, construct, maintain and operate in the Unit Area all necessary facilities for taking delivery in kind.

### 705. Failure to Take in Kind

To the extent that a Party entitled to take in kind any of the Unitized Substances fails to take or otherwise dispose of them at the time and place of production, then so long as such failure continues, Unit Operator, as agent and for the account and at the expense of such Party may sell, store, inject or otherwise dispose of them. Where there is a sale the "net proceeds" remaining from the sale shall be paid to the Party. Unit Operator may contract for the sale thereof only for the minimum term obtainable which in no event shall exceed one (1) year. When Unit Operator has so contracted, the Party may take its share of the Unitized Substances in kind upon the expiration of the current sales contract. The "net proceeds" for the purpose of this Clause shall mean the proceeds from the sale of the non-taking Party's share of production, less all direct costs of the sale, including processing and shipping costs.

### 706. Royalty on Outside Substances

If an Outside Substance is injected into the Unitized Zone, the first like substance contained in the Unitized Substances subsequently produced and sold or used other than for operations hereunder shall be deemed conclusively to be that Outside Substance until a quantity equal to the quantity of the Outside Substance injected into the Unitized Zone is recovered. No royalty shall be payable on any substance which is deemed conclusively to be an Outside Substance.

707. Several Royalty Liability

Without limiting the generality of the provisions of Clauses 702 and 1304, nothing in this Agreement shall be construed as giving rise to any right entitling the Royalty Owners of a Tract to look to any Working Interest Owners other than the Working Interest Owners of such Tract for the satisfaction of royalty obligations in respect of such Tract; provided, however, that in the event that the Working Interest Owners of a Tract are not the same persons as the lessee under a Lease relating to the Tract, the provisions of this Clause 707 shall not be construed as relieving such lessee of any obligation to account for royalty payable or deliverable to the lessor under such Lease if the Working Interest Owners fail to comply with their obligations in that respect.

**ARTICLE VIII: USE, LOSS AND RE-INJECTION OF UNITIZED SUBSTANCES**

801. Use or Loss

The Working Interest Owners may use as much of the Unitized Substances, other than crude oil, as they deem necessary for Unit Operations. Unitized Substances so used or injected and Unitized Substances lost shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof.

802. Re-Injection

The Working Interest Owners are hereby granted the right to re-inject Unitized Substances into the Unitized Zone for any purpose related to the Unit Operations. Unitized Substances so injected shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof until they are recovered for sale or for use other than for Unit Operations.

**ARTICLE IX: ENLARGEMENT OF UNIT AREA**

901. Enlargement

After the expiration of ninety (90) days following the Effective Date, if an owner of a Working Interest in lands adjoining the Unit Area makes application to enlarge the Unit Area to include such adjoining lands which appear to be potentially productive of Petroleum Substances from the Unitized Zone the Working Interest Owners may approve the enlargement of the Unit Area to include such adjoining lands on such terms and conditions as the Working Interest Owners may consider appropriate, and, if such adjoining lands qualify for inclusion in the Unit Area under Clause 502, the Unit Area shall be enlarged to include such adjoining lands. Notwithstanding that any owner of a Working Interest or a Royalty Interest in such adjoining lands is already a Party, such owner shall not, for the purposes of the qualification of such adjoining lands under Clause 502, be considered to have executed and delivered this agreement until it executes and delivers to the Unit Operator an additional counterpart of this agreement incorporating exhibits which reflect the proposed enlargement and which are stated to be effective as of the effective date of such enlargement.

902. Adjustment of Tract Participation

The Tract Participation of each Tract added pursuant to Clause 901 shall be determined by the Working Interest Owners. The Tract Participation shall then be adjusted in order that:

- (a) the ratios of the Tract Participation of Tracts shown on Exhibit "A" immediately prior to the enlargement remain the same to each other; and
- (b) the total of the Tract Participation for all Tracts of the enlarged Unit Area and Unitized Zone is one hundred percent (100%).

903. Exhibits

Unit Operator shall revise Exhibits "A" and "B" as required by the enlargement.



904. Effective Time of Enlargement

An enlargement pursuant to Clause 901 and an adjustment of Tract Participation under this Article shall become effective at 8:00 a.m. on the first day of the first calendar month following approval of admission under Clause 901, Tract qualification under Clause 502 and the date the Unit Agreement is registered by the Petroleum Branch.

905. No Retroactive Adjustment

There shall never be any retroactive adjustment of the allocation of Unitized Substances by reason of an enlargement under this Article.

906. Possible Additional Tract

A possible additional tract comprising of LSD's 7-14/8-14-9-28 WPM has been identified. While development has not proceeded due to economic factors, the possibility exists that this tract will be developed prior to the expiry of current lease for this tract. Notwithstanding the other Clauses of Article IX, should a well be drilled on this tract, the following methodology will be used to redetermine the Tract Participation:

- (a) Six (6) months of production will be required from tract 7-14/8-14 with the last 90 operating days used in the Tract Participation redetermination.
- (b) Similarly, the production during the last 90 days, referenced to the same time period as tract 7-14/8-14, will be used in the redetermination of Tract Participation in the unitized wells.
- (c) The Tract Participation assigned to the 7-14/8-14 tract will be calculated on the basis of the production (refer to (a)) from the 7-14/8-14 tract as a percentage of the total Unit production during the same time period (last 90 operating days).
- (d) The Tract Participation of the remaining Tracts in the Unit will be adjusted in proportion to their percentage in the Unit prior to the development of tract 7-14/8-14, to reflect the change in tract 7-14/8-14.

ARTICLE X: DISPUTES

1001. Disputes

If the title or right of a Party to receive in kind all or any portion of the Unitized Substances allocated to a Tract, or any share of the proceeds from the sale thereof, is in dispute, the Party concerned shall forthwith give notice thereof to Unit Operator. If Unit Operator is so notified or if Unit Operator is directed to do so by the Working Interest Owners in the event that it is otherwise informed of the dispute, Unit Operator shall withhold and sell the portion of the Unitized Substances the title or right to which is in dispute, and hold in trust the proceeds from the sale thereof until:

- (a) the Party concerned furnishes security in a form and manner satisfactory to the Working Interest Owners for the proper accounting thereof to the rightful owner or owners if the title or right of the Party shall fail in whole or in part, whereupon the proceeds shall be paid to the party; or
- (b) the title or right thereto is established by a final judgment of a Court or otherwise to the satisfaction of the Working Interest Owners, whereupon such proceeds shall be paid to the person rightfully entitled.

If Unit Operator does not comply with this Clause because it is not notified of a dispute by a Party concerned, that Party hereby agrees to indemnify and save harmless Unit Operator from any loss or damage suffered because of anything done or omitted to be done by Unit Operator because it was not notified.

ARTICLE XI: APPROVAL OF TITLES

1101. Titles Committee

The Working Interest Owners shall appoint a Titles Committee which shall investigate the ownership of all Tracts. Each Working Interest Owner shall submit to the Title Committee such title data and information as the titles Committee may reasonably require from time to time. The Titles Committee shall report the result of its investigation to the Working Interest Owners specifying the titles to Tracts which it unanimously recommends for approval.

1102. Approval of Titles by Working Interest Owners

The Working Interest Owners may approve:

- (a) the titles of Working Interest Owners to Tracts which have been unanimously recommended for approval by the Titles Committee; and
- (b) the titles of Working Interest Owners to Tracts which have not been unanimously recommended for approval by the Titles Committee but with respect to which such Working Interest Owners have agreed to indemnify the other Working Interest Owners, in a form and manner satisfactory to them, from loss or damage that may be suffered by them in respect of claims and demands made because of subsequent failure of the Working Interest Owners' title.

Notwithstanding the foregoing, the Working Interest Owners may approve any title that has not been unanimously recommended for approval by the Titles Committee.

1103. Subsequent Failure of Title

If the title of a Working Interest Owner to a Tract fails, the Tract shall be excluded from this agreement and the Unit Operating Agreement as of 8:00 a.m. on the first day of the calendar month in which the failure of title is finally determined unless:

- (a) any other Party is held or declared to own the title in which event that Party shall be bound by this agreement and the Unit Operating Agreement in respect of the Tract; or
- (b) by the last day of the next following calendar month the Tract qualifies for inclusion in the Unit Area pursuant to Clause 502.

1104. Revision of Exhibits

Unit Operator shall revise the exhibits to reflect any change in ownership in or exclusion from this agreement of a Tract pursuant to Clause 1103. Where a Tract is excluded, the Tract Participation of the other Tracts shall each be increased, without changing their ratios to each other, so that their summation is one hundred percent (100%). The revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month in which the failure of title referred to in Clause 1103 is finally determined.

## ARTICLE XII: TRANSFER OF INTEREST

1201. Disposition

In this Clause "disposition" means a sale, assignment, transfer, lease, sublease, conveyance, parting with possession, or any transaction of a similar nature, whether by trust or otherwise. A disposition of an interest owned by a Party in a Tract shall cover the whole or an undivided interest in the Party's interest in such Tract. A disposition shall not be binding on Unit Operator until the acquiring parties who are not Parties have executed and delivered to Unit Operator counterparts of this agreement, and at least one of the parties thereto has given notice thereof to the Unit Operator. Unit Operator shall revise the exhibits to reflect each disposition of an interest in a Tract and the revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month next following the calendar month in which the notice is received by Unit Operator.

1202. Multiple Disposition Not to Increase Costs

If any disposition of an interest by a Party in a Tract should be made to multiple parties so that the expense or duties of Unit Operator are thereby increased, the Unit Operator may require the assignee parties (and Party if it retains an interest) to appoint one of their number as representing all of them for the purpose of this agreement, unless arrangements satisfactory to the Unit Operator are made to compensate the Unit Operator for the increased expenses or duties.

## ARTICLE XIII: IN GENERAL

### 1301. Execution in Counterpart

This agreement may be executed in separate counterparts and all the executed counterparts together shall constitute one agreement. Execution of this agreement by the Minister shall be on behalf of the Crown only as owner of Royalty Interest.

### 1302. Dual Capacity

If a Party owns a Working Interest and a Royalty Interest, its execution of this agreement shall constitute execution in both capacities.

### 1303. Subsequent Execution

An owner of an interest in a Tract who has not become a Party as of the date the Tract was included in the Unit Area under Article V or IX, may become a Party with respect to that interest only on such terms and conditions as may be prescribed by the Working Interest Owners.

### 1304. No Partnership

The duties and obligations of the Parties shall be separate and not joint or collective. Nothing contained in this agreement shall be construed to create a partnership or association.

### 1305. Force Majeure

Neither Unit Operator nor any Party shall be deemed to be in default with respect to non-performance including delay or failure to partially perform any or all of its obligations hereunder, other than financial, if and so long as its non-performance is due, in whole or in part, to any cause beyond its reasonable control, but lack of funds shall not be a cause beyond a Party's reasonable control. The performance of such obligations shall begin or be resumed within a reasonable time after such cause has been removed. Neither this agreement nor any Lease or any other agreement or instrument relating to the Unitized Zone or Unitized Substances shall terminate by reason of suspension of Unit Operations for the cause set forth in this Clause.

### 1306. Taxes

Each Party shall be separately liable to the extent of its ownership for all taxes on Unitized Substances and with respect to the production or sale of Unitized Substances. A Working Interest Owner may, at any time and from time to time, pay said taxes on behalf of its Royalty Owner and deduct the amount of the payment from the Royalty Owner's royalty. These taxes with respect to the production or sale of Unitized Substances shall be adjusted so that they are borne as if the basis of taxation was the allocation of Unitized Substances hereunder.

### 1307. Right of Redemption

A Working Interest Owner may, at any time and from time to time, with full rights of subrogation, redeem for its Royalty Owner any agreement for sale, mortgage, or other lien or encumbrance of any kind or nature affecting any interest in the Unit Area in the event of default of payment by the Royalty Owner and deduct the amount of any payment made hereunder from the Royalty Owner's royalty.

### 1308. Interpretation

The Clause Headings in this agreement shall not be considered in interpreting the text.

### 1309. Number and Gender

In this agreement words importing the singular include the plural and vice versa; words importing the masculine gender include the feminine and vice versa; and words importing persons include firms or corporations and vice versa.

1310. Time

In this agreement all times are "official times" as defined in The Official Time Act of the Province of Manitoba.

1311. Compliance with Legislation

The provisions of The Oil and Gas Act and regulations of Manitoba thereunder, as amended from time to time, take precedence over this agreement.

1312. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Manitoba, and each of the Parties submits to the jurisdiction of the courts of the Province of Manitoba for the interpretation and enforcement hereof.

**ARTICLE XIV: EFFECTIVE DATE**

1401. Effective Date

The unitization provided for herein shall become effective at 8:00 a.m. on the first day of the first calendar month following:

- (a) the date of the qualification under Clause 502 of Tracts having a combined Tract Participation of one hundred percent (100%) as originally set out in Exhibit "A"; and
- (b) the date the Unit Agreement is registered by the Petroleum Branch.

1402. Notice of Effective Date

As soon as possible after the Effective Date Unit Operator shall notify all Working Interest Owners of the Effective Date and each of the Tracts qualified as of the Effective Date, and each Working Interest Owner shall advise each of its Royalty Owners of the Effective Date.

1403. Release of Parties

This agreement shall cease to bind the Parties if the unitization provided for herein has not become effective on or before the first day of December, 1998.

**ARTICLE XV: TERM**

1501. Effect of Execution and Delivery

Subject to Clause 1403 this agreement is binding upon a person who executes and delivers a counterpart thereof to Unit Operator, and that person is bound by this agreement as of the time of such delivery. This agreement inures to the benefit of and is binding upon the heirs, executors, administrators, successors and assigns of the Parties.

1502. Termination

This agreement terminates ninety (90) calendar days after all wells for the production of Unitized Substances in the Unit Area have been abandoned, plugged or disposed of or upon the termination of the Unit Operating Agreement, and thereafter the Parties shall be governed by the terms and provisions of their Leases and other agreements or instruments relating to the Unitized Zone or Unitized Substances.

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of six (6) months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within thirty (30) calendar days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

DORIS MARIE GOULD

September 28/98  
(DATE)

Doris Marie Gould.

ADDRESS FOR SERVICE:

2119 Agincourt Crescent

Burlington, ON L7P 1P3

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

SONIA HELEN JACQUES

September 28/98  
(DATE)

Sonia Helen Jacques

ADDRESS FOR SERVICE:

P.O. Box 1375

Virden, MB R0M 2C0

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

HER MAJESTY THE QUEEN IN RIGHT OF  
THE PROVINCE OF MANITOBA

June 10, 1998  
(DATE)

  
Minister of Energy and Mines

ADDRESS FOR SERVICE:

MANITOBA DEPARTMENT OF ENERGY AND MINES  
360 - 1395 Ellice Avenue  
Winnipeg, MB R3G 3P2

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1



IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

INITIAL  
HERE

OCTOBER 20, 1998  
(DATE)

MONTREAL TRUST COMPANY OF CANADA, NEW TRUSTEE  
~~MONTREAL TRUST COMPANY OF CANADA~~ FOR THE CANADA TRUST  
COMPANY, SUCCESSOR TO THE TORONTO GENERAL  
TRUST CORPORATION

*Mary Hamner*  
*Clare Facey*

ADDRESS FOR SERVICE:

600, 530 Eighth Avenue SW

Calgary, AB T2P 3S8

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MONTREAL TRUST COMPANY

(DATE)

July 7/98

R. Bellcham

836

EXECUTION  
APPROVED  
*[Signature]*

D. Hawryluk 1125

ADDRESS FOR SERVICE:

~~P.O. Box 360~~ 200 PORTAGE AVENUE  
Winnipeg, MB R3C 2H PLAZA LEVEL  
R3C 3X2

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

September 20/98 Morris John Senkiw  
(DATE)

ADDRESS FOR SERVICE:

*General Delivery*

*Virden, MB ROM 2C0*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

TUNDRA OIL AND GAS LTD.

May 27, 1998  
(DATE)

[Signature]  
[Signature]

ADDRESS FOR SERVICE:

1111 One Lombard Place

Winnipeg, MB R3B 0X4

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

IRENE ANNE YAKOBOVICH

Sept 30th / 98.  
(DATE)

Irene Anne Yakobovich

ADDRESS FOR SERVICE:

3406 Clover Place

Regina, SK S4V 1J1

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

**EXHIBIT 'A': TRACT PARTICIPATION**

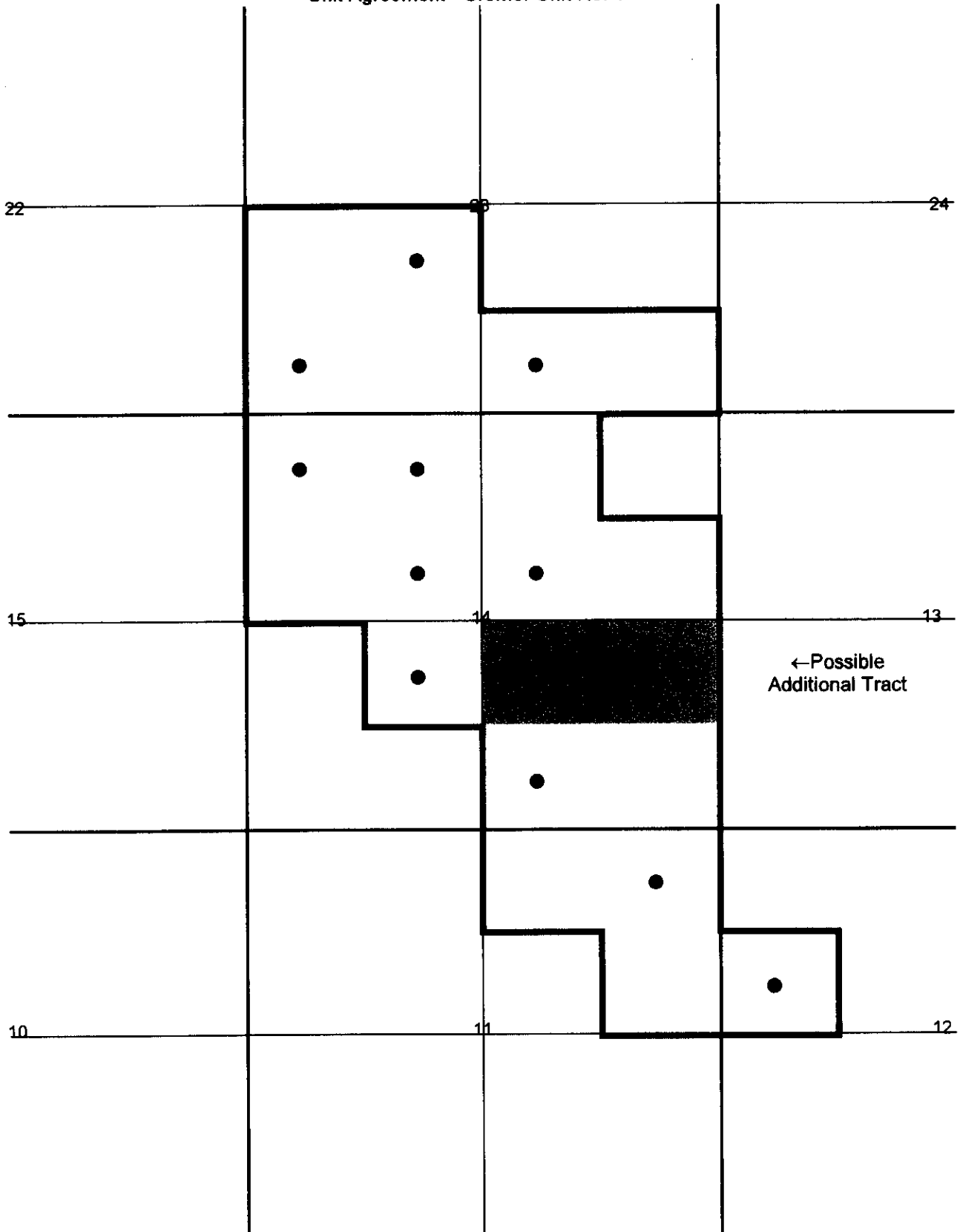
Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

April 15, 1998

Tract No.	Land Description LSD	Working Interest		Royalty Interest		Tract Participation %
		Owner	Share (%)	Owner	Share (%)	
1	15 & 16-11-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	13.60075
2	9-11 & 12-12-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	13.87640
3	1 & 2-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	15.12404
4	6-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Montreal Trust (CGY) ✓ Montreal Trust (WPG) ✓	75.000 25.000	9.13245
5	8 & 10-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	7.12317
6	11 & 12-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	9.49514
7	13-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	3.37299
8	14 & 15-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	11.19977
9	1 & 2-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	D.M. Gould ✓ S.H. Jacques ✓ M.J. Senkiw ✓ I.A. Yakobovich ✓	25.000 25.000 25.000 25.000	1.58856
10	3 & 4-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd. ✓ Montreal Trust (CGY) ✓	50.000 50.000	3.09735
11	5 & 6-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd. ✓ Montreal Trust (CGY) ✓	50.000 50.000	12.38938

EXHIBIT 'B'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

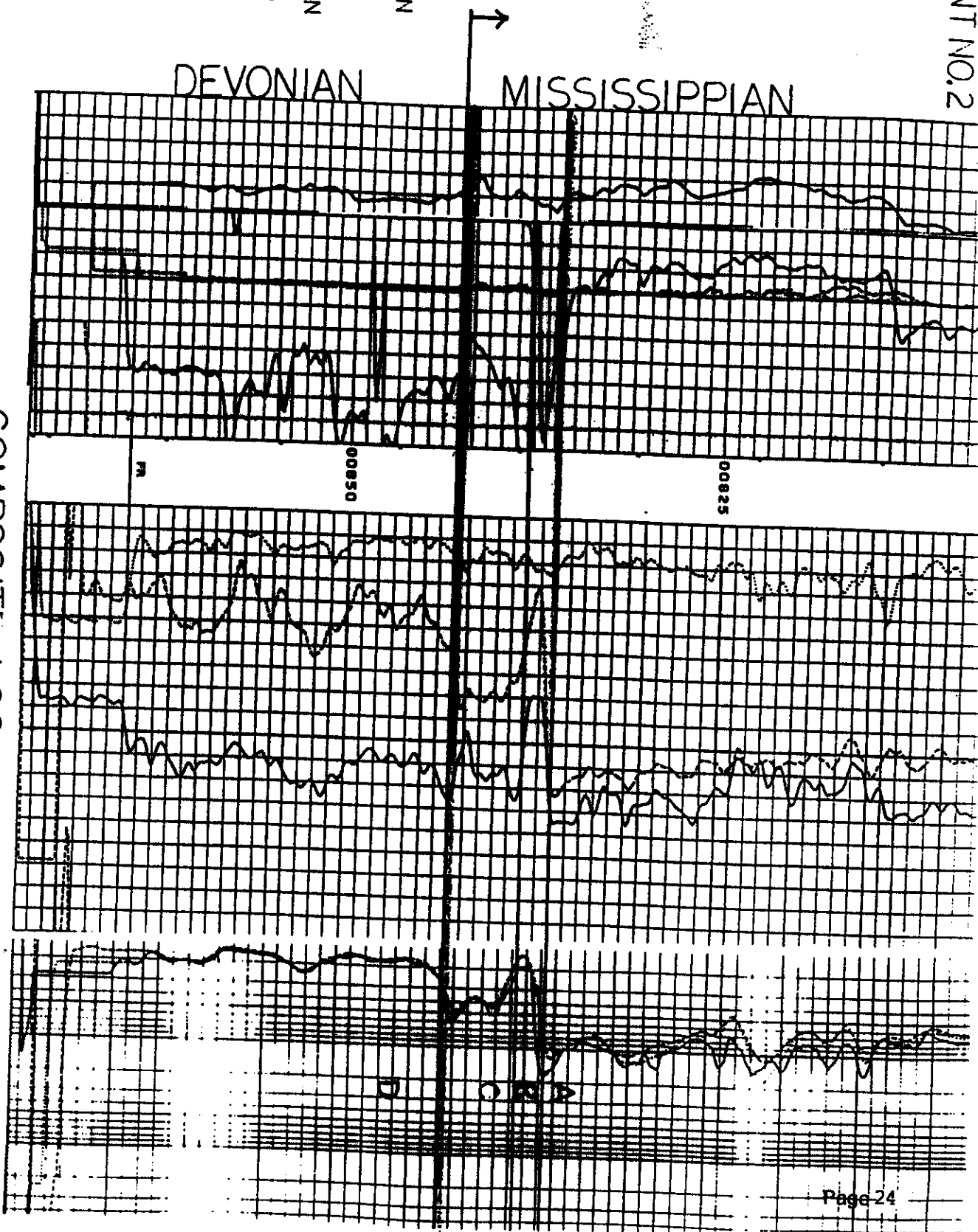


TWP 9 RGE 28 WPM

EXHIBIT 'C'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

LODGEPOLE FORMATION  
UPPER MEMBER BAKKEN  
MIDDLE MEMBER BAKKEN  
LYLETON FORMATION



COMPOSITE LOG

TUNDRA 11-14-09-28

INDUCTION LOG / CNL-DENSITY LOG





Energy and Mines

Petroleum and Energy Branch

1395 Ellice Avenue Suite 360  
Winnipeg MB R3G 3P2  
CANADA

PH: (204) 945-6577  
PH: (204) 945-3760  
FAX: (204) 945-0586

June 3, 1998

Mr. George Czyzewski, P.Eng.  
Sr. Reservoir Engineer  
Tundra Oil and Gas Ltd.  
1111 - One Lombard Place  
Winnipeg MB R3B 0X4

Dear George:

**Re: Cromer Unit No. 1  
Waterflood Order No. 6**

Your application to conduct waterflood operations in the Daly Bakken I Pool has been approved. Attached is Waterflood Order No. 6 outlining conditions for operation of the waterflood in Cromer Unit No. 1. Water injection into the unit may not commence until the unit agreement has been executed by all parties and registered by the Petroleum Branch.

If you have any questions please don't hesitate to call the undersigned at 945-6574.

Yours truly,



John N. Fox, P.Eng.  
Chief Petroleum Engineer

**MINISTERIAL ORDER  
WATERFLOOD ORDER NO. 6**

**Pertaining to Waterflood Operations  
in Cromer Unit No. 1**

- 1.0 The Unit Operator shall conduct waterflood operations by injecting water into the Bakken Formation underlying Cromer Unit No. 1 ("the Unit") through the wells listed in Schedule A. The Director may approve the conversion of additional wells in the Unit to water injection.
- 1.1 Every injection well shall be completed as approved under Section 47 of the Drilling and Production Regulation.
- 1.2 The maximum wellhead pressure at which water may be injected is 9 000 kPa.
- 1.3 The Director may, from time to time, establish a maximum or minimum rate at which water may be injected into a well.
- 1.4 The annulus of each injection well shall be pressure tested in accordance with Section 50 of the Drilling and Production Regulation.
- 2.0 The Unit Operator shall conduct an annual survey to determine the level and distribution of reservoir pressure in the Unit. A summary of the results of any pressure surveys conducted during the year are to be included in the annual waterflood progress report required under Section 73 of the Drilling and Production Regulation.
- 2.1 The frequency of pressure surveys may be reduced where the Director is satisfied that more frequent surveys will not assist the Unit Operator in monitoring the effectiveness of the waterflood.
- 2.2 The Unit Operator is responsible for monitoring the effectiveness of the waterflood and for collecting such reservoir data and other information as is necessary to evaluate and optimize waterflood performance.
- 2.3 The Unit Operator is to advise the Petroleum Branch of the suspension of water injection at any well, any indication of channelling or breakthrough of injected water to a producing well or out of zone and any other detrimental effects that may be attributable to the waterflood operations.
- 3.0 The Unit Operator shall file a report of production or injection for each well in the Unit in accordance with Section 120 of the Drilling and Production Regulation.
- 4.0 The Unit Operator shall file an annual waterflood progress report in accordance with Section 73 of the Drilling and Production Regulation.

June 1, 1998

Date



Director of Petroleum for  
Minister of Energy and Mines

**Schedule A**

**Cromer Unit No. 1**

**Water Injection Wells**

Cromer Unit No.1 WIW 2-14-9-28 (WPM)

Cromer Unit No.1 WIW 11-14-9-28 (WPM)

CROMER UNIT NO. 1

**UNIT AGREEMENT**

UNIT AGREEMENT  
CROMER UNIT NO. 1

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## UNIT AGREEMENT

### CROMER UNIT NO. 1

WHEREAS the Parties own Royalty Interests and Working Interests, or either of them, in the Unitized Zone;

AND WHEREAS the Parties desire that the Unitized Zone be developed, produced and operated as a Unit, as hereinafter provided;

NOW THEREFORE in consideration of the covenants herein contained, the Parties agree as follows:

#### ARTICLE I: DEFINITIONS

##### 101. Definitions

In this agreement:

- (a) "Effective Date" means the time and date referred to in Article XIV;
- (b) "Lease" means an instrument granting a Working Interest in any lands in the Unit Area;
- (c) "Outside Substances" means any substances initially obtained from any source other than the Unitized Zone or any Unitized Substances with respect to which royalty has been paid;
- (d) "Party" means a person who is bound by this Agreement;
- (e) "Petroleum Branch" means the Department of Energy and Mines, Petroleum Branch established under The Oil and Gas Act;
- (f) "Petroleum Substances" means petroleum, natural gas and related hydrocarbons (except coal) and all substances whether gaseous, liquid or solid, which are produced in association therewith, or any of them;
- (g) "Royalty Interest" means
  - i) an ownership, fee simple, or similar estate in Petroleum Substances in the Unitized Zone, or
  - ii) a right to a share of Petroleum Substances produced from the Unitized Zone, to a share of the proceeds from the sale of such Petroleum Substances, or to a payment based on the quantity or value of such Petroleum Substances, but does not include a Working interest, the interest of a purchaser or such Petroleum Substances after production, or a mortgage, charge or like interest granted as security in a financial transaction;
- (h) "Royalty Owner" means a Party owning a Royalty Interest in or in respect of Unitized Substances;
- (i) "Spacing Unit" means the area allocated to a well by the Petroleum Branch with respect to the Unitized Zone for the purpose of drilling for or producing Petroleum Substances;
- (j) "Tract" means a parcel of land described and given a Tract number in Exhibit "A" and shown outlined on Exhibit "B";
- (k) "Tract Participation" means the Participation percentage allocated to a Tract pursuant to Article VI and set forth in Exhibit "A";
- (l) "Unit Area" means the lands described in Exhibit "A" and shown outlined on Exhibit "B";
- (m) "Unit Operations" means any operations or activities undertaken in connection with the Unitized Zone, the production or handling of Unitized Substances or the installation, operation, maintenance or removal of equipment or facilities, insofar as such operations or activities have been authorized or provided for under this agreement or the Unit Operating Agreement
- (n) "Unit Operator" means the person who is so designated under the Unit Operating Agreement;
- (o) "Unit Operating Agreement" means the agreement entitled "Unit Operating Agreement - Cromer Unit No. 1" entered into by the Working Interest Owners;
- (p) "Unitized Zone" means the Bakken Formation of the Mississippian Age underlying the lands within the Unit Area as same is shown on the compensated neutron litho-density log of the Tundra Daly 11-14-9-28 WPM well in 11-14-9-28 WPM, in the Province of Manitoba between the intervals of 836.0

metres and 843.0 metres as measured from the kelly bushing at 11-14-9-28 WPM and shown on Exhibit "C";

- (q) "Unitized Substances" means Petroleum Substances in or obtained from the Unitized Zone;
- (r) "Working Interest" means any interest which entitles the owner thereof to produce and dispose of, or to participate in the production and disposition of, Petroleum Substances from the Unitized Zone, and with which is associated a responsibility to bear all or a portion of the costs of recovering such Petroleum Substances;
- (s) "Working Interest Owner" means a party owning a Working Interest in or in respect of Unitized Substances;
- (t) "Minister" means the member of the Executive Council charged by the Lieutenant Governor in Council with the administration of The Oil and Gas Act of Manitoba.

## ARTICLE II: EXHIBITS

### 201. Exhibits

The following exhibits are attached to and incorporated in this agreement:

- (a) Exhibit "A" which numbers and describes each Tract and sets forth its Tract Participation, the names of the Working Interest Owners and their respective shares of the Working Interest, together with the names of the Royalty Owners and their respective shares of the Royalty Interest;
- (b) Exhibit "B" which is a plan of the Unit Area identifying the Tracts;
- (c) Exhibit "C" which is a reproduction of a portion of the compensated neutron litho-density log referred to in Subclause 101(p) hereof.

### 202. Exhibits Correct

Each exhibit shall be deemed conclusively to be correct to the effective time of a revision or correction thereof as herein provided.

### 203. Correction of Exhibits

If any mistake or mechanical error occurs in an exhibit, Unit Operator may, or upon request of the Working Interest Owners shall, prepare a corrected exhibit but the data used in establishing Tract Participation shall not be re-evaluated.

### 204. Effective Time

Any corrected exhibit prepared on or before the Effective Date or within ninety (90) days thereafter shall be effective on the Effective Date. Any corrected exhibit prepared after the said ninety (90) days shall be effective at 8:00 a.m. on the first day of the calendar month next following its preparation or on such other date as is determined by the Working Interest Owners.

### 205. Supplying of Exhibits

Each time that an exhibit is revised or corrected pursuant to this agreement, Unit Operator shall supply the Petroleum Branch with two copies and shall supply each Working Interest Owner with the number of copies of the exhibit it requests. Each Working Interest Owner shall supply each of its Royalty Owners, excepting the Crown, with a copy thereof.

### 206. Form of Revised or Corrected Exhibits

Exhibits that are revised or corrected shall show the effective time of the revision or correction and shall be numbered consecutively.

### ARTICLE III: UNITIZATION AND EFFECT

301. Unitization

On and after the Effective Date the interests of each Royalty Owner and of each Working Interest Owner in the Unitized Substances and in the Unitized Zone are hereby unitized, in accordance with the provisions of this agreement.

302. Personal Property Excepted

All lease and well equipment heretofore or hereafter placed by any of the Working Interest Owners on lands comprised in the Unit Area shall be deemed conclusively to be and shall remain personal property belonging to and may be removed by the Working Interest Owners. The Working Interest Owners' rights and interests therein are set forth in the Unit Operating Agreement.

303. Continuation of Leases

All Unit Operations and all production of Unitized Substances shall, except for the purpose of calculating payments to Royalty Owners, be deemed conclusively to be operations upon or production from all of the Unitized Zone in each Tract, and such operations or production shall continue in force and effect each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances as if such operations had been conducted on, or a well had been drilled and was producing from each Tract or Spacing Unit, or portion thereof, in the Unit Area.

If from time to time during the term of this Agreement the production of Unitized Substances and the conduct of other Unit Operations is temporarily interrupted or suspended:

(a) for any period not exceeding ninety (90) consecutive days or

(b) for any period during which an event of force majeure contemplated by Clause 1305 is in effect,

then, for the purposes of this Clause 303, Unitized Substances shall be deemed to have been produced throughout any such period.

304. Leases Amended

Each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances is hereby amended only to the extent necessary to make it conform to this agreement.

305. Retification of Leases

Except for a Lease in respect of which a royalty Owner is involved in a court action which has been commenced and is pending on the Effective Date, each Royalty Owner hereby ratifies each Lease, as amended by this agreement, to which it is a party, and hereby confirms that no notice of default has been given and remains outstanding with respect to any such Lease, and that each Lease is in effect as of the Effective Date. The provisions of this Clause 305 do not constitute a waiver, and shall not give rise to an estoppel, of any right to pursue the enforcement of any outstanding obligation under any such Lease.

306. Effect of Unitization on Titles

Nothing in this agreement, nor the Unit Operating Agreement shall be construed as a transfer or exchange of any interest in the Leases, Tracts or Unitized Zone, or in the Unitized Substances before production thereof.

307. Name

The name of the Unit hereby constituted is "Cromer Unit No. 1".

308. Equipment and Facilities

All equipment and facilities used in connection with the Unit Operations and heretofore or hereafter installed, affixed or constructed by any of the Working Interest Owners on or in lands within the Unit Area are and shall remain the personal property of the Working Interest Owners, or such of them as may from time to time have an interest therein, and, except as otherwise provided in Clause 1503, no interest in any such equipment and facilities shall vest in the royalty Owners by virtue of the provisions of this Agreement.



#### **ARTICLE IV: AUTHORITY TO WORKING INTEREST OWNERS**

401. Operations

The Working Interest Owners are hereby granted the right to develop and operate the Unitized Zone without regard to the provisions of the Leases or the boundary lines of the Tract or Spacing Units in such manner and by such means and methods as the Working Interest Owners consider appropriate. Without limiting the generality of the foregoing, the Working Interest Owners shall have the right to inject any substance or combination of substances into the Unitized Zone and to convert and use as injection wells any wells now existing or hereafter drilled into the Unitized Zone.

402. Delegation

The Working Interest Owners may delegate to Unit Operator any of the rights and powers herein or otherwise granted to them.

403. Vote of Working Interest Owners

Any matter to be determined under this agreement by the Working Interest Owners may be determined by vote of the parties to the Unit Operating Agreement as prescribed therein.

#### **ARTICLE V: INCLUSION AND QUALIFICATION OF TRACTS**

501. Tracts Included on Effective Date

The Tracts included in the Unit Area as of the Effective Date are those Tracts which are qualified under Clause 502:

- (a) before the Effective Date; or
- (b) on or within ninety (90) days after the Effective Date.

502. Qualification of Tracts

A Tract is qualified for inclusion in the Unit Area when its title has been approved by the Working Interest Owners under Clause 1102 and when:

- (a) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of one hundred percent (100%) of the Royalty Interest therein have become Parties; or
- (b) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of less than one hundred percent (100%) of the Royalty Interest therein have become Parties, and such owners of Working Interests agree, if required by the other Working Interest Owners, to indemnify the other Working Interest Owners in a form and manner satisfactory to them for any loss or damages that may be suffered by such other Working Interest Owners in respect of claims and demands that, because of the inclusion of the Tract in the Unit Area, may be made by those owners of Royalty Interests in the Tract who have not become Parties; or
- (c) owners of the Working Interests therein have agreed with the owners of Working Interests then Parties and parties to the Operating Agreement as to the basis on which the Tract shall become qualified, where the Tract cannot be qualified pursuant to Subclause (a) or (b) of this Clause.

503. Revision of Exhibits

Within one hundred twenty (120) days after the Effective Date the exhibits shall be revised, if necessary, to set out only those Tracts included in the Unit Area under this Article. The revised Exhibit "A" shall set forth the Tract Participation of the Tracts recalculated on the same basis and using the same data as that used in the calculation of Tract Participation in the original Exhibit "A" and so that their summation is one hundred percent (100%). The exhibits as so revised shall be effective as of the Effective Date.

## ARTICLE VI: TRACT PARTICIPATION

### 601. Tract Participation

Each Tract has the Tract Participation ascribed to it in Exhibit "A".

## ARTICLE VII: ALLOCATION OF UNITIZED SUBSTANCES PRODUCED

### 701. Allocation to Tracts

Subject to Clauses 801 and 802 the Unitized Substances when produced shall be allocated to the Tracts in accordance with their Tract Participation. The amount of Unitized Substances allocated to each Tract, and only that amount, regardless of whether it be more or less than the amount of actual production of Unitized Substances from the well or wells, if any, on the Tract, shall be deemed conclusively to have been produced from the Tract.

### 702. Allocation Among Parties

The Unitized Substances allocated to a Tract shall be further allocated among the Working Interest Owners thereof in accordance with their respective percentage Working Interests in the Tract as set forth in Exhibit "A", and the Working Interest Owners of each Tract shall account to the Royalty Owners of such Tract for any royalty payable or deliverable to such Royalty Owners in respect of the Unitized Substances allocated to such Tract.

### 703. Calculation of Royalty

The Working Interest Owners of each Tract shall calculate royalty on the Unitized Substances allocated to the Tract at the applicable rate under the Lease, other agreement or instrument relating to the Tract. The Royalty Owners of each Tract agree to accept payment of royalty so calculated in satisfaction of the obligation of a Working Interest Owner to make royalty payments on Unitized Substances under the Lease, agreement or other instrument covering such Tract; but a lessee under a Lease shall not be relieved from making payment of royalty to its lessor if payment is not made by the Working Interest Owner as aforesaid. In calculating royalty on residue gas, sulphur and fluid hydrocarbons, or any of them, obtained by processing Unitized Substances, other than crude oil, by compression, absorption or other plant extraction or stabilization, proper allowances shall be made for costs, expenses and charges, including a reasonable return on investment, incurred in or attributable to gathering and processing the Unitized Substances.

### 704. Taking Unitized Substances in Kind

The Unitized Substances allocated to a Tract shall be delivered in kind at the time and place of production to the Working Interest Owners entitled thereto who may, if there is no interference with Unit Operations by them, construct, maintain and operate in the Unit Area all necessary facilities for taking delivery in kind.

### 705. Failure to Take in Kind

To the extent that a Party entitled to take in kind any of the Unitized Substances fails to take or otherwise dispose of them at the time and place of production, then so long as such failure continues, Unit Operator, as agent and for the account and at the expense of such Party may sell, store, inject or otherwise dispose of them. Where there is a sale the "net proceeds" remaining from the sale shall be paid to the Party. Unit Operator may contract for the sale thereof only for the minimum term obtainable which in no event shall exceed one (1) year. When Unit Operator has so contracted, the Party may take its share of the Unitized Substances in kind upon the expiration of the current sales contract. The "net proceeds" for the purpose of this Clause shall mean the proceeds from the sale of the non-taking Party's share of production, less all direct costs of the sale, including processing and shipping costs.

### 706. Royalty on Outside Substances

If an Outside Substance is injected into the Unitized Zone, the first like substance contained in the Unitized Substances subsequently produced and sold or used other than for operations hereunder shall be deemed conclusively to be that Outside Substance until a quantity equal to the quantity of the Outside Substance injected into the Unitized Zone is recovered. No royalty shall be payable on any substance which is deemed conclusively to be an Outside Substance.

707. Several Royalty Liability

Without limiting the generality of the provisions of Clauses 702 and 1304, nothing in this Agreement shall be construed as giving rise to any right entitling the Royalty Owners of a Tract to look to any Working Interest Owners other than the Working Interest Owners of such Tract for the satisfaction of royalty obligations in respect of such Tract; provided, however, that in the event that the Working Interest Owners of a Tract are not the same persons as the lessee under a Lease relating to the Tract, the provisions of this Clause 707 shall not be construed as relieving such lessee of any obligation to account for royalty payable or deliverable to the lessor under such Lease if the Working Interest Owners fail to comply with their obligations in that respect.

**ARTICLE VIII: USE, LOSS AND RE-INJECTION OF UNITIZED SUBSTANCES**

801. Use or Loss

The Working Interest Owners may use as much of the Unitized Substances, other than crude oil, as they deem necessary for Unit Operations. Unitized Substances so used or injected and Unitized Substances lost shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof.

802. Re-Injection

The Working Interest Owners are hereby granted the right to re-inject Unitized Substances into the Unitized Zone for any purpose related to the Unit Operations. Unitized Substances so injected shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof until they are recovered for sale or for use other than for Unit Operations.

**ARTICLE IX: ENLARGEMENT OF UNIT AREA**

901. Enlargement

After the expiration of ninety (90) days following the Effective Date, if an owner of a Working Interest in lands adjoining the Unit Area makes application to enlarge the Unit Area to include such adjoining lands which appear to be potentially productive of Petroleum Substances from the Unitized Zone the Working Interest Owners may approve the enlargement of the Unit Area to include such adjoining lands on such terms and conditions as the Working Interest Owners may consider appropriate, and, if such adjoining lands qualify for inclusion in the Unit Area under Clause 502, the Unit Area shall be enlarged to include such adjoining lands. Notwithstanding that any owner of a Working Interest or a Royalty Interest in such adjoining lands is already a Party, such owner shall not, for the purposes of the qualification of such adjoining lands under Clause 502, be considered to have executed and delivered this agreement until it executes and delivers to the Unit Operator an additional counterpart of this agreement incorporating exhibits which reflect the proposed enlargement and which are stated to be effective as of the effective date of such enlargement.

902. Adjustment of Tract Participation

The Tract Participation of each Tract added pursuant to Clause 901 shall be determined by the Working Interest Owners. The Tract Participation shall then be adjusted in order that:

- (a) the ratios of the Tract Participation of Tracts shown on Exhibit "A" immediately prior to the enlargement remain the same to each other; and
- (b) the total of the Tract Participation for all Tracts of the enlarged Unit Area and Unitized Zone is one hundred percent (100%).

903. Exhibits

Unit Operator shall revise Exhibits "A" and "B" as required by the enlargement.

904. Effective Time of Enlargement

An enlargement pursuant to Clause 901 and an adjustment of Tract Participation under this Article shall become effective at 8:00 a.m. on the first day of the first calendar month following approval of admission under Clause 901, Tract qualification under Clause 502 and the date the Unit Agreement is registered by the Petroleum Branch.

905. No Retroactive Adjustment

There shall never be any retroactive adjustment of the allocation of Unitized Substances by reason of an enlargement under this Article.

906. Possible Additional Tract

A possible additional tract comprising of LSD's 7-14/8-14-9-28 WPM has been identified. While development has not proceeded due to economic factors, the possibility exists that this tract will be developed prior to the expiry of current lease for this tract. Notwithstanding the other Clauses of Article IX, should a well be drilled on this tract, the following methodology will be used to redetermine the Tract Participation:

- (a) Six (6) months of production will be required from tract 7-14/8-14 with the last 90 operating days used in the Tract Participation redetermination.
- (b) Similarly, the production during the last 90 days, referenced to the same time period as tract 7-14/8-14, will be used in the redetermination of Tract Participation in the unitized wells.
- (c) The Tract Participation assigned to the 7-14/8-14 tract will be calculated on the basis of the production (refer to (a)) from the 7-14/8-14 tract as a percentage of the total Unit production during the same time period (last 90 operating days).
- (d) The Tract Participation of the remaining Tracts in the Unit will be adjusted in proportion to their percentage in the Unit prior to the development of tract 7-14/8-14, to reflect the change in tract 7-14/8-14.

## ARTICLE X: DISPUTES

1001. Disputes

If the title or right of a Party to receive in kind all or any portion of the Unitized Substances allocated to a Tract, or any share of the proceeds from the sale thereof, is in dispute, the Party concerned shall forthwith give notice thereof to Unit Operator. If Unit Operator is so notified or if Unit Operator is directed to do so by the Working Interest Owners in the event that it is otherwise informed of the dispute, Unit Operator shall withhold and sell the portion of the Unitized Substances the title or right to which is in dispute, and hold in trust the proceeds from the sale thereof until:

- (a) the Party concerned furnishes security in a form and manner satisfactory to the Working Interest Owners for the proper accounting thereof to the rightful owner or owners if the title or right of the Party shall fail in whole or in part, whereupon the proceeds shall be paid to the party; or
- (b) the title or right thereto is established by a final judgment of a Court or otherwise to the satisfaction of the Working Interest Owners, whereupon such proceeds shall be paid to the person rightfully entitled.

If Unit Operator does not comply with this Clause because it is not notified of a dispute by a Party concerned, that Party hereby agrees to indemnify and save harmless Unit Operator from any loss or damage suffered because of anything done or omitted to be done by Unit Operator because it was not notified.

## ARTICLE XI: APPROVAL OF TITLES

1101. Titles Committee

The Working Interest Owners shall appoint a Titles Committee which shall investigate the ownership of all Tracts. Each Working Interest Owner shall submit to the Title Committee such title data and information as the titles Committee may reasonably require from time to time. The Titles Committee shall report the result of its investigation to the Working Interest Owners specifying the titles to Tracts which it unanimously recommends for approval.

1102. Approval of Titles by Working Interest Owners

The Working Interest Owners may approve:

- (a) the titles of Working Interest Owners to Tracts which have been unanimously recommended for approval by the Titles Committee; and
- (b) the titles of Working Interest Owners to Tracts which have not been unanimously recommended for approval by the Titles Committee but with respect to which such Working Interest Owners have agreed to indemnify the other Working Interest Owners, in a form and manner satisfactory to them, from loss or damage that may be suffered by them in respect of claims and demands made because of subsequent failure of the Working Interest Owners' title.

Notwithstanding the foregoing, the Working Interest Owners may approve any title that has not been unanimously recommended for approval by the Titles Committee.

1103. Subsequent Failure of Title

If the title of a Working Interest Owner to a Tract fails, the Tract shall be excluded from this agreement and the Unit Operating Agreement as of 8:00 a.m. on the first day of the calendar month in which the failure of title is finally determined unless:

- (a) any other Party is held or declared to own the title in which event that Party shall be bound by this agreement and the Unit Operating Agreement in respect of the Tract; or
- (b) by the last day of the next following calendar month the Tract qualifies for inclusion in the Unit Area pursuant to Clause 502.

1104. Revision of Exhibits

Unit Operator shall revise the exhibits to reflect any change in ownership in or exclusion from this agreement of a Tract pursuant to Clause 1103. Where a Tract is excluded, the Tract Participation of the other Tracts shall each be increased, without changing their ratios to each other, so that their summation is one hundred percent (100%). The revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month in which the failure of title referred to in Clause 1103 is finally determined.

## ARTICLE XII: TRANSFER OF INTEREST

1201. Disposition

In this Clause "disposition" means a sale, assignment, transfer, lease, sublease, conveyance, parting with possession, or any transaction of a similar nature, whether by trust or otherwise. A disposition of an interest owned by a Party in a Tract shall cover the whole or an undivided interest in the Party's interest in such Tract. A disposition shall not be binding on Unit Operator until the acquiring parties who are not Parties have executed and delivered to Unit Operator counterparts of this agreement, and at least one of the parties thereto has given notice thereof to the Unit Operator. Unit Operator shall revise the exhibits to reflect each disposition of an interest in a Tract and the revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month next following the calendar month in which the notice is received by Unit Operator.

1202. Multiple Disposition Not to Increase Costs

If any disposition of an interest by a Party in a Tract should be made to multiple parties so that the expense or duties of Unit Operator are thereby increased, the Unit Operator may require the assignee parties (and Party if it retains an interest) to appoint one of their number as representing all of them for the purpose of this agreement, unless arrangements satisfactory to the Unit Operator are made to compensate the Unit Operator for the increased expenses or duties.

### ARTICLE XIII: IN GENERAL

#### 1301. Execution in Counterpart

This agreement may be executed in separate counterparts and all the executed counterparts together shall constitute one agreement. Execution of this agreement by the Minister shall be on behalf of the Crown only as owner of Royalty Interest.

#### 1302. Dual Capacity

If a Party owns a Working Interest and a Royalty Interest, its execution of this agreement shall constitute execution in both capacities.

#### 1303. Subsequent Execution

An owner of an interest in a Tract who has not become a Party as of the date the Tract was included in the Unit Area under Article V or IX, may become a Party with respect to that interest only on such terms and conditions as may be prescribed by the Working Interest Owners.

#### 1304. No Partnership

The duties and obligations of the Parties shall be separate and not joint or collective. Nothing contained in this agreement shall be construed to create a partnership or association.

#### 1305. Force Majeure

Neither Unit Operator nor any Party shall be deemed to be in default with respect to non-performance including delay or failure to partially perform any or all of its obligations hereunder, other than financial, if and so long as its non-performance is due, in whole or in part, to any cause beyond its reasonable control, but lack of funds shall not be a cause beyond a Party's reasonable control. The performance of such obligations shall begin or be resumed within a reasonable time after such cause has been removed. Neither this agreement nor any Lease or any other agreement or instrument relating to the Unitized Zone or Unitized Substances shall terminate by reason of suspension of Unit Operations for the cause set forth in this Clause.

#### 1306. Taxes

Each Party shall be separately liable to the extent of its ownership for all taxes on Unitized Substances and with respect to the production or sale of Unitized Substances. A Working Interest Owner may, at any time and from time to time, pay said taxes on behalf of its Royalty Owner and deduct the amount of the payment from the Royalty Owner's royalty. Those taxes with respect to the production or sale of Unitized Substances shall be adjusted so that they are borne as if the basis of taxation was the allocation of Unitized Substances hereunder.

#### 1307. Right of Redemption

A Working Interest Owner may, at any time and from time to time, with full rights of subrogation, redeem for its Royalty Owner any agreement for sale, mortgage, or other lien or encumbrance of any kind or nature affecting any interest in the Unit Area in the event of default of payment by the Royalty Owner and deduct the amount of any payment made hereunder from the Royalty Owner's royalty.

#### 1308. Interpretation

The Clause Headings in this agreement shall not be considered in interpreting the text.

#### 1309. Number and Gender

In this agreement words importing the singular include the plural and vice versa; words importing the masculine gender include the feminine and vice versa; and words importing persons include firms or corporations and vice versa.

1310. Time

In this agreement all times are "official times" as defined in The Official Time Act of the Province of Manitoba.

1311. Compliance with Legislation

The provisions of The Oil and Gas Act and regulations of Manitoba thereunder, as amended from time to time, take precedence over this agreement.

1312. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Manitoba, and each of the Parties submits to the jurisdiction of the courts of the Province of Manitoba for the interpretation and enforcement hereof.

#### ARTICLE XIV: EFFECTIVE DATE

1401. Effective Date

The unitization provided for herein shall become effective at 8:00 a.m. on the first day of the first calendar month following:

- (a) the date of the qualification under Clause 502 of Tracts having a combined Tract Participation of one hundred percent (100%) as originally set out in Exhibit "A"; and
- (b) the date the Unit Agreement is registered by the Petroleum Branch.

1402. Notice of Effective Date

As soon as possible after the Effective Date Unit Operator shall notify all Working Interest Owners of the Effective Date and each of the Tracts qualified as of the Effective Date, and each Working Interest Owner shall advise each of its Royalty Owners of the Effective Date.

1403. Release of Parties

This agreement shall cease to bind the Parties if the unitization provided for herein has not become effective on or before the first day of December, 1998.

#### ARTICLE XV: TERM

1501. Effect of Execution and Delivery

Subject to Clause 1403 this agreement is binding upon a person who executes and delivers a counterpart thereof to Unit Operator, and that person is bound by this agreement as of the time of such delivery. This agreement inures to the benefit of and is binding upon the heirs, executors, administrators, successors and assigns of the Parties.

1502. Termination

This agreement terminates ninety (90) calendar days after all wells for the production of Unitized Substances in the Unit Area have been abandoned, plugged or disposed of or upon the termination of the Unit Operating Agreement, and thereafter the Parties shall be governed by the terms and provisions of their Leases and other agreements or instruments relating to the Unitized Zone or Unitized Substances.

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of six (6) months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within thirty (30) calendar days thereafter.



IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

HER MAJESTY THE QUEEN IN RIGHT OF  
THE PROVINCE OF MANITOBA

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
Minister of Energy and Mines

ADDRESS FOR SERVICE:

*MANITOBA DEPARTMENT OF ENERGY AND MINES*

*360 - 1395 Ellice Avenue*

*Winnipeg, MB R3G 3P2*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

HER MAJESTY THE QUEEN IN RIGHT OF  
THE PROVINCE OF MANITOBA

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
Minister of Energy and Mines

ADDRESS FOR SERVICE:

*MANITOBA DEPARTMENT OF ENERGY AND MINES*

*360 - 1395 Ellice Avenue*

*Winnipeg, MB R3G 3P2*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

DORIS MARIE GOULD

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*2119 Agincourt Crescent*

*Burlington, ON L7P 1P3*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

SONIA HELEN JACQUES

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*P.O. Box 1375*

*Virden, MB R0M 2C0*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

HER MAJESTY THE QUEEN IN RIGHT OF  
THE PROVINCE OF MANITOBA

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
Minister of Energy and Mines

ADDRESS FOR SERVICE:

*MANITOBA DEPARTMENT OF ENERGY AND MINES*

*360 - 1395 Ellice Avenue*

*Winnipeg, MB R3G 3P2*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MONTREAL TRUST COMPANY

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*600, 530 Eighth Avenue SW*

*Calgary, AB T2P 3S8*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MONTREAL TRUST COMPANY

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*P.O. Box 369*

*Winnipeg, MB R3C 2J1*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MORRIS JOHN SENKIW

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*General Delivery*

*Virden, MB R0M 2C0*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1



IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

TUNDRA OIL AND GAS LTD.

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*1111 One Lombard Place*

*Winnipeg, MB R3B 0X4*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

IRENE ANNE YAKOBOVICH

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*3406 Clover Place*

*Regina, SK S4V 1J1*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

# **EXHIBIT 'A': TRACT PARTICIPATION**

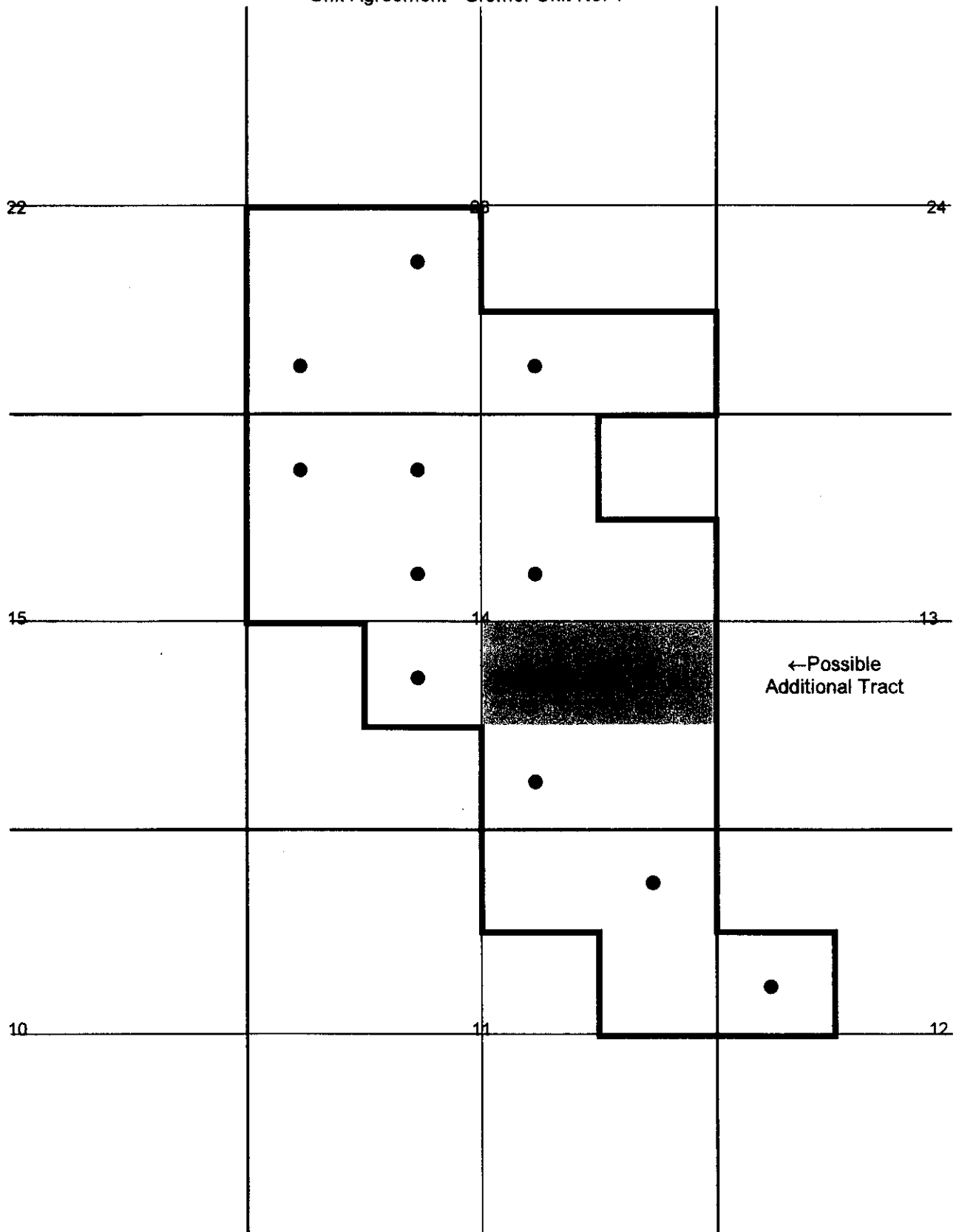
Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

April 15, 1998

Tract No.	Land Description LSD	Working Interest		Royalty Interest		Tract Participation %
		Owner	Share (%)	Owner	Share (%)	
1	15 & 16-11-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.60075
2	9-11 & 12-12-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.87640
3	1 & 2-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	15.12404
4	6-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Montreal Trust (CGY)	25.000	9.13245
				Montreal Trust (WPG)	75.000	
5	9 & 10-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	7.12317
6	11 & 12-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	9.49514
7	13-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	3.37299
8	14 & 15-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	11.19977
9	1 & 2-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	D.M. Gould	25.000	1.58856
				S.H. Jacques	25.000	
				M.J. Senkiw	25.000	
				I.A. Yakobovich	25.000	
10	3 & 4-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd.	50.000	3.09735
				Montreal Trust (CGY)	50.000	
11	5 & 6-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd.	50.000	12.38938
				Montreal Trust (CGY)	50.000	

EXHIBIT 'B'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

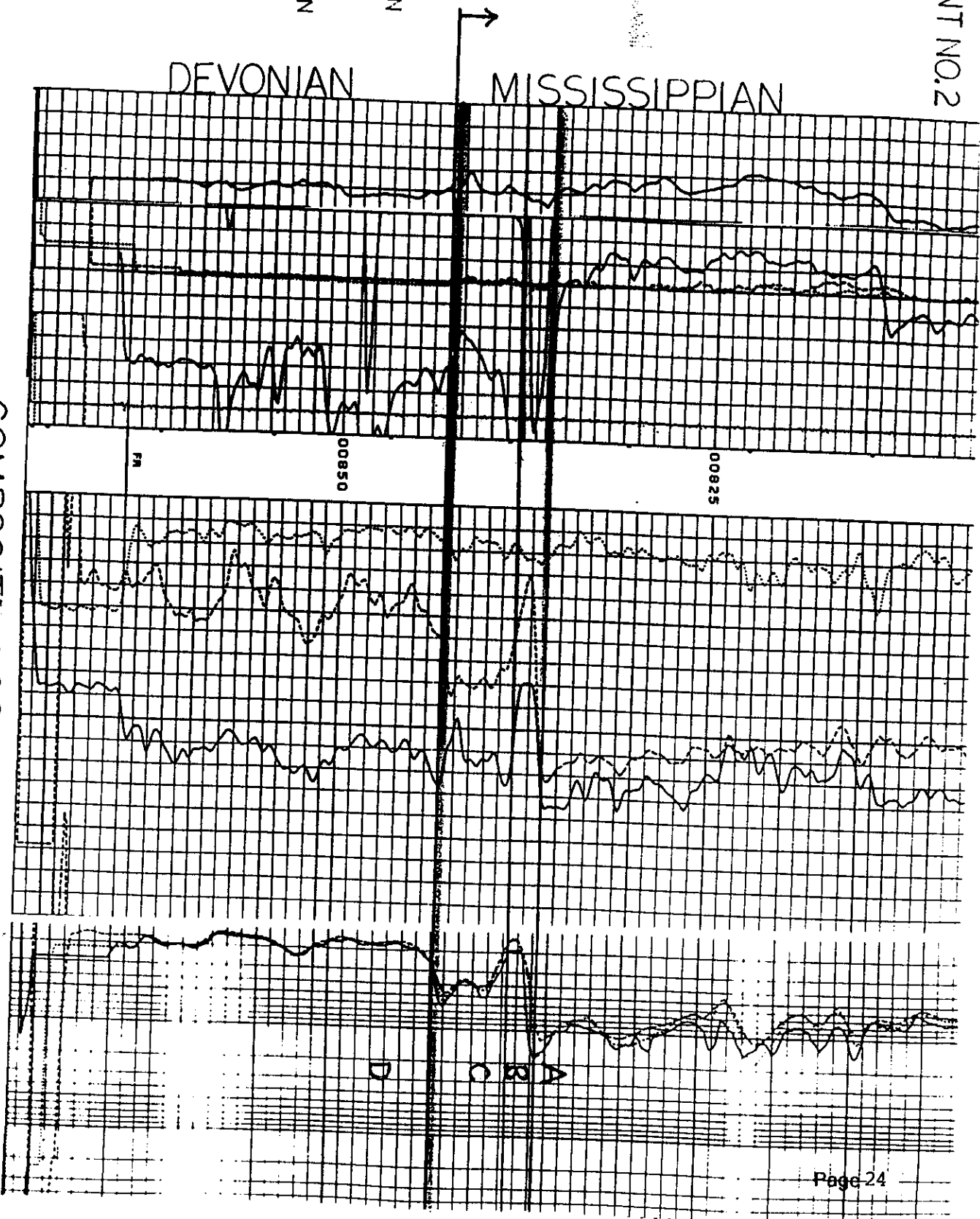


TWP 9 RGE 28 WPM

EXHIBIT 'C'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

- LODGEPOLE FORMATION
- UPPER MEMBER BAKKEN
- MIDDLE MEMBER BAKKEN
- LYLETON FORMATION



COMPOSITE LOG

TUNDRA 11-14-09-28

INDUCTION LOG / CNL-DENSITY LOG

**CROMER UNIT NO. 1**  
**UNIT OPERATING AGREEMENT**

**UNIT OPERATING AGREEMENT  
CROMER UNIT NO. 1**

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## UNIT OPERATING AGREEMENT

### CROMER UNIT NO. 1

WHEREAS the Parties own Working Interests in the Unitized Zone and desire to conduct Unit Operations;

NOW THEREFORE in consideration of the covenants herein contained, the Parties agree as follows:

## ARTICLE I

### DEFINITIONS

#### 101. Definitions

Unless otherwise defined herein, the definitions in the Unit Agreement are adopted. In addition, in this agreement:

(a) "Affiliate Corporation" means a corporation fulfilling one of the following requirements:

- i) Parties, one of which controls the other; or
- ii) two (2) or more Parties, both or all of which are controlled by the same corporation.

For the purposes herein, "controls" or "controlled" means control in any manner that results in control in fact, whether directly through the ownership of shares, or indirectly through a trust, a contract, the ownership of shares of any other body corporate or otherwise;

(b) "Commencement Date" means the time and date referred to in Article XVII;

(c) "Controllable Materials" means Material which at the time is so classified in the Controllable Material Price Catalogue as most recently recommended by the Petroleum Accountants Society of Canada;

(d) "Joint Account" means the account established and maintained by Unit Operator pursuant to Article XII; and "for the Joint Account" means for the benefit and risk and at the expense of the Parties in accordance with their Unit Participation;

(e) "Party" means a person who is bound by this Agreement;

(f) "Operating Committee" means the committee, composed of duly authorized representatives of each of the Parties established pursuant to Article IV;

(g) "Unit Agreement" means the agreement entitled "Unit Agreement - Cromer Unit No. 1";

(h) "Unit Facilities" means all real and personal property of every kind, nature and description (excepting Unitized Substances, the Unitized Zone, rental equipment, and Unit Operator's solely owned equipment) in the possession of the Unit Operator pursuant to this agreement;

(i) "Unit Operations" means any operations authorized and provided for in the Unit Agreement and this agreement, or either of the, for or in respect of the development and operation of the Unitized Zone for the production of Unitized Substances;

(j) "Unit Participation" of a Party means the sum of the Party's share of Tract Participation which is the percentage of interest as set forth in Exhibit "D";

(k) "Unit Well" means a well listed in Exhibit "E" and any well drilled or acquired for the Joint Account.

## ARTICLE II

### CONFIRMATION OF UNIT AGREEMENT

#### 201. Confirmation of Unit Agreement

The Unit Agreement is ratified and confirmed. In the event of any conflict between the Unit Agreement and this agreement, the Unit Agreement shall prevail. With respect to all matters not specifically provided for in this agreement, the relevant provisions of the Unit Agreement shall apply mutatis mutandis.



### ARTICLE III

#### EXHIBITS

301. Exhibits Incorporated

Exhibits "A", "B" and "C" of the Unit Agreement are incorporated in this agreement by this reference.

302. Exhibits Attached

The following exhibits are attached to and incorporated in this agreement:

- (a) Exhibit "D" which is a list of the Parties and their respective Unit Participation;
- (b) Exhibit "E" which is a list of the Unit Wells;
- (c) Exhibit "F" which is the Accounting Procedure;
- (d) Exhibit "G" which is the Insurance Requirements.

303. Revisions and Corrections

Whenever Exhibits "A" and "B" are revised or corrected, corresponding revisions or corrections of Exhibits "D" and "E" shall be made with concurrent effect. Exhibit "E" shall also be revised as required to reflect additions or deletions of Unit Wells. A revision shall be effective on the first day of the month following its preparation or on such other date as may be specified by the Operating Committee.

304. Supplying of Exhibits

Each time that an exhibit is revised or corrected pursuant to this agreement, the Unit Operator shall supply each Party with a copy of the revised exhibit.

305. Conflicts

If a provision of an exhibit conflicts with a provision in the body hereof, the latter shall prevail.

### ARTICLE IV

#### SUPERVISION AND CONTROL OF UNIT OPERATIONS

401. Operating Committee

The Parties shall supervise and control Unit Operations through an Operating Committee composed of their duly appointed representatives. Each Party shall as soon as possible notify Unit Operator of the name and address of its representative and one or more alternate representatives who are authorized to represent and bind the Party with respect to Unit Operations. A Party may change any of its representatives from time to time by notice to Unit Operator. Two or more Parties may appoint the same person as their representative who shall cast a separate vote for each of his principals.

402. Chairman

The representative of Unit Operator shall be Chairman of the Operating Committee.

403. Meetings

The Operating Committee shall hold meetings whenever called by Unit Operator, or if there is no Unit Operator, by Parties having Unit Participation totaling ten percent (10%) or more. Unit Operator may call meetings at any time on its own motion, and shall call meetings whenever requested to do so by representatives of any two Working Interest Owners. Unless the representatives of all Parties in writing waive their right to notice, at least ten (10) calendar days' notice of each meeting shall be given to the Parties, with an agenda attached. Reasonable details of matters on the agenda involving proposed expenditures and enlargements of the Unit Area shall be given. Matters not on the agenda may be voted upon only if the representatives of all Parties, whether or not present at the meeting, unanimously agree.

#### 404. Voting Procedure

The representatives of the Parties shall determine all matters properly coming before the Operating Committee as follows:

- (a) Voting Interest. Except as otherwise provided in this Clause and Clause 405, in voting on any matter each Party shall have a voting interest equal to its Unit Participation. Parties that are Affiliate Corporations shall be deemed to be one Party and shall be entitled to one vote representing their entire combined interest.
- (b) Vote Required - Generally. Except as otherwise provided in this agreement, the Operating Committee shall determine matters by the affirmative vote of two (2) or more Parties having voting interests totaling eighty percent (80%) or more, but if a Party having a voting interest of more than twenty percent (20%) is the only one voting negatively, the matter shall be carried even though the voting interest of the Parties voting affirmatively total less than eighty percent (80%).
- (c) Vote Required - Special Matters.
  - i) Removal of Unit Operator. Unit Operator may be removed by the affirmative vote of three (3) or more Parties having voting interests totaling ninety percent (90%) or more of the total of the voting interests of all the Parties except Unit Operator, but for the purposes hereof Subclause (e) of this Clause shall not apply;
  - ii) Qualification of Tracts. Matters in respect of the qualification of Tracts for inclusion in the Unit Area shall be determined by the affirmative vote of three (3) or more Parties having voting interests totaling ninety percent (90%) or more;
  - iii) Enlargement of Unit Area. Matters in respect of the enlargement of the Unit Area shall be determined by the affirmative vote of three (3) or more Parties having voting interests totaling ninety percent (90%) or more;
  - iv) Amendment or Replacement of Exhibit "F" or "G". Exhibits "F" and "G" may be amended or replaced by the affirmative vote of three (3) or more Parties having voting interests totalling ninety percent (90%) or more, but if a Party having a voting interest of ten percent (10%) or more is the only one voting negatively, the motion shall be carried even though the voting interests of the Parties voting affirmatively total less than ninety percent (90%);
  - v) Termination. The Unit Agreement, pursuant to the provisions thereof, and this agreement, may be terminated by the affirmative vote of three (3) or more Parties having voting interests totaling ninety percent (90%) or more, but for purposes hereof Subclause (e) of this Clause shall not apply.
- (d) Vote by Notice
  - i) A Party not represented at a meeting may vote on any matter on the agenda by prior notice to Unit Operator;
  - ii) Unit Operator may submit any matter, with reasonable details of any proposed expenditure or enlargement of the Unit Area, to each Party by mail ballot notice. Each Party shall by such notice cast its vote with Unit Operator within fifteen (15) calendar days from the date of receipt of the mail ballot notice. Such vote shall be binding unless Unit Operator calls a meeting or is requested to call a meeting pursuant to Clause 403 within five (5) calendar days from the receipt of mail ballot notice. Unit Operator shall promptly notify each Party of the result of a vote hereunder.
- (e) Failure to Vote. A Party who does not vote on any matter shall be deemed conclusively to have voted affirmatively, but in recording the vote in the minutes, the Party shall be shown as having been present and abstained, been absent, or failed to vote pursuant to a mail ballot notice, as the case may be.

#### 405. Initial Voting Interest

Each Party shall, during the period from the Commencement Date until ninety (90) calendar days after the Effective Date, be deemed conclusively to have a voting interest equal to the proportion, expressed as a percentage, that its Unit Participation bears to the combined Unit Participation of the Parties, as set forth in Exhibit "D".

#### 406. Minutes

Unit Operator shall keep minutes of the proceedings of each meeting of the Operating Committee and a copy thereof shall be forwarded to each Party. The minutes shall include the names of the representatives present, the Parties they represent and any formal action taken by the Operating Committee. Minutes shall be deemed to be correct as distributed and binding on all Parties unless written notice of errors or omissions is received by Unit Operator within thirty (30) calendar days after the date the minutes were deemed to be received by the Parties.

407. Parties Bound by Voting

A determination of a matter by the voting of Parties in accordance with this agreement shall be binding upon all the Parties.

**ARTICLE V**

**RIGHTS AND POWERS OF THE OPERATING COMMITTEE**

501. Rights and Powers of the Operating Committee

The Operating Committee shall have and exercise all the rights and powers granted to the Working Interest Owners by the Unit Agreement, except to the extent that certain of the said rights and powers are by this agreement specifically delegated to Unit Operator to be exercised by Unit Operator subject to the orders, directions and limitations given or imposed by the Operating Committee.

**ARTICLE VI**

**INDIVIDUAL RIGHTS AND PRIVILEGES OF THE PARTIES**

601. Reservation of Rights

Except as otherwise provided in this agreement or the Unit Agreement, each Party reserves to itself all of its rights, powers, authorities and privileges.

602. Specific Rights

Each Party shall have:

- (a) at the Party's sole risk and expense, at all reasonable times within normal business hours upon notice to Unit Operator, the right to inspect all records and data pertaining to Unit Operations in the possession of Unit Operator and the right of access to the Unit Area, to inspect Unit Operations and the Unit Facilities;
- (b) the right to conduct operations on its Tracts for the discovery and production of Petroleum Substances other than Unitized Substances on condition that the Party shall protect the Unitized Zone and prevent interference with Unit Operations. Each Party who exercises this right agrees to indemnify all other Parties against all actions, suits, claims, costs, loss, liability, damages and expenses that may be brought against or suffered by them as a result of anything done pursuant or relative to the exercising of such rights.

**ARTICLE VII**

**UNIT OPERATOR**

701. Unit Operator

The Parties hereby designate Tundra Oil and Gas Ltd. as the initial Unit Operator, and Tundra Oil and Gas Ltd. hereby accepts such designation.

702. Resignation or Removal

Unit Operator may resign at any time by giving ninety (90) calendar days notice to the Parties. Unit Operator may be removed by a vote of the Operating Committee in accordance with Clause 404(c)(i). A Unit Operator who resigns or is removed shall continue to have all its rights, powers, duties and obligations as Unit Operator hereunder until 8:00 a.m. on the first day of the month immediately following the month in which the said period of ninety (90) calendar days expires or until a designated successor Unit Operator has taken over Unit Operations whichever is the sooner. If Unit Operator becomes bankrupt or insolvent or ceases to be a Working Interest Owner it shall thereupon cease to be Unit Operator.

703. Designation of Successor

If Unit Operator resigns or is removed or ceases to be Unit Operator, a successor Unit Operator shall forthwith be designated by the Operating Committee. In voting on the successor the departing Unit Operator may not vote to succeed itself, nor may it vote in favour of any of its Affiliates as successor Unit Operator.

**704. Takeover by Successor**

Upon the effective time of resignation, removal or cessation, the departing Unit Operator shall turn over to its successor, or if no successor has been designated, to the Parties or to any one of them on behalf of all, control and possession of all Unit Facilities, unit production on hand, documents, books, records and accounts (or copies thereof) pertaining to the performance of its functions as Unit Operator, together with all monies held by it in its capacity as Unit Operator. If the title to any real property included in the Unit Facilities is held in its name, it shall continue to hold such property in trust for the Parties unless otherwise directed by the Operating Committee. Upon the date Unit Operations are taken over by the successor Unit Operator, the departing Unit Operator shall be released and discharged from the successor, Unit Operator shall assume all duties and obligations of Unit Operator; provided however that the departing Unit Operator shall continue to be liable for any and all unsatisfied duties and obligations of the departing Unit Operator which arose prior to the effective date the successor Unit Operator took over the Unit Operations.

**705. Audit Upon Change of Unit Operator**

Within sixty (60) calendar days of the effective time of Unit Operator's resignation, removal or cessation as Unit Operator, the Unit Operating Committee shall cause an audit to be made of the records of the departing Unit Operator, the cost of which shall be for the Joint Account.

**706. No Assignment of Operating Rights**

Except as authorized by the Operating Committee, Unit Operator shall not assign its operating rights or obligations under this agreement.

## **ARTICLE VIII**

### **PERFORMANCE BY UNIT OPERATOR**

**801. Status**

Unit Operator shall, in addition to its rights, powers, duties and obligations as Unit Operator, have all the rights, powers, duties and obligations of a Party.

**802. Rights, Powers, Duties and Obligations**

Subject to this agreement and the Unit Agreement and to any orders, directions and limitations given or imposed by the Operating Committee or by regulatory bodies having jurisdiction, Unit Operator shall conduct or cause to be conducted all Unit Operations. Without limiting the generality of the foregoing, Unit Operator shall:

- (a) make all necessary reports relating to Unit Operations to the appropriate governmental agency;
- (b) keep true and correct books, accounts and records of the Unit Operations and furnish to each Party on or before the thirtieth (30th) day of each calendar month a statement of the amount of Unitized Substances produced and the sales and inventory of such production in the preceding calendar month and such other data and information as the Operating Committee may require;
- (c) provide each Party with timely statements of financial results on a monthly basis and remit net proceeds of production received for the account of Non-Operators promptly on completion of those monthly statements;
- (d) furnish to each Party such reports of Unit Operations as the Operating Committee may direct and consult with the Operating Committee and keep the Parties advised of all matters arising in connection with Unit Operations which Unit Operator considers important;
- (e) conduct all Unit Operations in a good and workmanlike manner, in accordance with good oil and gas field practices and in accordance with all applicable laws, orders, rules, and regulations;
- (f) keep the Leases, the Unit Area and the Unit Facilities free from all liens and encumbrances resulting or arising from Unit Operations, except liens being contested in good faith;
- (g) comply and require its contractors to comply with The Workers' Compensation Act and carry and require its contractors to carry, with respect to Unit Operations, such liability insurance for the benefit of the

Parties as set forth in Exhibit "G", but this shall not prevent a Party from procuring and maintaining at its sole cost and expense and for its sole benefit such insurance on Unit Facilities as it shall determine if the Party's insurance policy contains a waiver on the part of the insurance carrier of all rights, but subrogation or otherwise, against any Party not named as an insured in the policy; and

- (h) let contracts for portions of Unit Operations on a competitive basis, but Unit Operator may use its own facilities and equipment for such operations and charge for usage thereof in accordance with paragraph 205 of Exhibit "F".

In the absence of any specific instruction from the Operating Committee, Unit Operator shall conduct, or cause to be conducted, such Unit Operations as would a prudent operator under the same or similar circumstances.

803. Employees

The number, selection, hours of labour and remuneration of employees used by Unit Operator in conducting Unit Operations shall be determined by Unit Operator. Such employees shall be the employees solely of Unit Operator.

804. Expenditures

Unit Operator shall not make or incur any expenditure for the Joint Account, other than an operating or maintenance expenditure allowed by an approved forecast, without the approval of the Operating Committee except as set out in paragraph 217 of Exhibit "F".

## ARTICLE IX LIABILITIES AND OBLIGATIONS

901. Liability of Unit Operator

Unit Operator, its servants, agents or employees, shall not be liable to the other Parties for any loss or damage suffered by the Parties resulting or arising from Unit Operations except when and to the extent that such loss or damage results from the gross negligence or willful or wanton misconduct of Unit Operator, its servants, agents or employees. Each Party in the proportion of its Unit Participation indemnifies and agrees to hold harmless Unit Operator, its servants, agents and employees against any claim of, or liability to, any third person resulting from acts or omissions of Unit Operator, its servants, agents or employees in respect of Unit Operations, except when and to the extent that such claim or liability results from the gross negligence or willful or wanton misconduct of Unit Operator, its servants, agents or employees. For the purposes of this Clause, an act of omission of Unit Operator, its servants, agents or employees, shall not be deemed gross negligence or willful or wanton misconduct if such act of omission is done or omitted pursuant to the instructions of, or with the concurrence of, the Operating Committee.

902. Taxes, Rentals and Royalties

Each Party shall pay or be responsible for the payment of all taxes (other than the Goods and Services Tax which is provided for in paragraph 208 of Exhibit "F" and taxes on Unit Facilities which shall be paid by Unit Operator for the Joint Account), rentals and royalties applicable to the Party's Working Interest in the respective Tracts and shall indemnify and save harmless all other parties from all claims, suits, loss, costs, expenses and damages paid or incurred by them as a result of its failure to do so.

## ARTICLE X UNIT FACILITIES

1001. Delivery of Wells and Equipment

Upon the Effective Date each Party shall deliver to Unit Operator the exclusive use and possession of such Party's interest in:

- (a) all Unit Wells together with all casing therein; and
- (b) all tubing, wellsite and other operating equipment used in the operation of the Unit Wells which the Operating Committee determines is necessary or desirable for conducting Unit Operations, except warehouses, leased houses, camps, office buildings and automobiles and other service equipment.

1002. Delivery of Records

Upon the Effective Date each Party shall deliver to Unit Operator copies of all records and information pertaining to Unit Wells, and any other pertinent information and records requested by Unit Operator.

1003. Testing of Unit Wells

If, by a test conducted by Unit Operator within ninety (90) days after the Effective Date, any Unit Well is found by Unit Operator not to be in sound working condition, the Party delivering it shall bear the entire cost and risk of putting it in sound working condition; provided that if a Party disagrees with Unit Operator's finding, the matter shall be finally decided by the Operating Committee. Either the Party shall authorize Unit Operator to carry out the remedial work on its behalf, or the Operating Committee shall determine how and by whom the work shall be carried out or the amount that, in lieu of the work being carried out, shall be paid by the Party to Unit Operator for the Joint Account. All costs incurred by Unit Operator hereunder, or the amount to be paid by the Party in lieu thereof, shall be deemed conclusively to be amounts owing by the Party within the meaning of Article XII.

1004. Adequacy of Wellsite and Other Operating Equipment

If, within ninety (90) days after the Effective Date, Unit Operator determines that a Unit Well does not have adequate wellsite and other operating equipment, the Party delivering it shall bear the entire cost and risk of providing and installing adequate wellsite and other operating equipment; provided that if a Party disagrees with Unit Operator's decision, the matter shall be finally decided by the Operating Committee. Either the Party shall authorize Unit Operator to provide and install the necessary equipment on its behalf or the Operating Committee shall determine who shall provide and install the equipment or the amount that, in lieu of the equipment being provided and installed, shall be paid by the party to Unit Operator for the Joint Account. All costs incurred by Unit Operator hereunder or the amount to be paid by the Party in lieu thereof, shall be deemed conclusively to be amounts owing by the Party within the meaning of Article XII.

1005. Representation and Indemnity

Each Party represents that it owns or has the right to deliver the Unit Facilities which it delivers pursuant to Clause 1001, and each Party indemnifies and agrees to hold harmless the other Parties from any and all liability, loss, cost or damage sustained by them and resulting from failure of or deficiency in its title to the Unit Facilities which it so delivers.

1006. Agreements for Use of Facilities

With the approval of the Operating Committee, Unit Operator may enter into agreements with any person to operate facilities other than Unit Facilities or for the use or joint use by any person of any Unit Facilities, or for the use or joint use by Unit Operator of any facilities owned by any person, and all costs and expenses recovered or incurred pursuant to said agreements shall be for the Joint Account.

## ARTICLE XI ADJUSTMENT OF INVESTMENT

1101. Inventory and Evaluation

The Unit Operator has made a rough evaluation of such of the wellsite and other operating equipment delivered to Unit Operator defined as Controllable Material and has concluded that each of the Tracts contributed have essentially identical equipment value. As a result, it is agreed that no further provision will be made for equalization of investment among the Parties.

1102. General Facilities

With the approval of the Operating Committee, Unit Operator may acquire warehouses, warehouse stocks, lease houses, camps, office buildings and automobiles and other service equipment necessary for Unit Operations.

1103. Ownership of Facilities

Each Party shall own an undivided interest in the Unit Facilities that is equal to its Unit Participation.

1104. Adjustment on Failure of Title

The Operating committee shall determine whether and the amount of any compensation that shall be payable by the other Parties to a Party whose title to a Tract fails for such Party's undivided interest so lost in the Unit Facilities.

1105. Pre-Unit Costs

With the approval of the Operating Committee any or all costs and expenses incurred prior to the Effective Date that are directly related to effecting unitization hereunder shall be for the Joint Account. Unit Operator estimates that these costs, mainly engineering and design, will not exceed \$30,000. Other costs of battery construction, flowlines, injection facilities, et cetera are excluded from this estimate.

## ARTICLE XII

### COSTS OF UNIT OPERATIONS

1201. Basis of Charges to Parties

Unit Operator shall set up and maintain a Joint Account and, except as otherwise provided in this agreement, Unit Operator initially shall pay and discharge all costs and expenses incurred for the Joint Account. The Parties shall reimburse Unit Operator for all such costs and expenses in proportion to their respective Unit Participation. Notwithstanding Clause 601 of the Unit Agreement or any other provision contained in either this agreement or the Unit Agreement, the Parties shall reimburse Unit Operator for all approved capital costs incurred by the Unit Operator in proportion to each Party's respective Unit Participation. All charges, credits and accounting for costs and expenses shall be in accordance with Exhibit "F".

1202. Forecasts

As soon as practicable after the Effective Date, Unit Operator shall submit to the Operating Committee a forecast of proposed expenditures for Unit Operations for the remainder of the calendar year, and on or before the last day of each October thereafter shall submit to the Operating Committee such a forecast for the succeeding calendar year. Forecasts shall set forth the proposed expenditures by quarterly periods, showing the capital items separately. The Operating Committee may approve a forecast or any portion thereof or it may conditionally approve any proposed expenditure or it may instruct Unit Operator to revise a forecast or any portion thereof. A copy of each forecast and revised forecast shall be promptly furnished to each Party. Approval of a forecast by the Operating Committee shall constitute approval of all operating and maintenance expenditures set forth therein but shall not constitute approval of any single capital expenditure the total estimated cost of which is in excess of the amount specified in or determined pursuant to paragraph 217 of Exhibit "F". All capital expenditures in excess of the amount specified in Exhibit "F" set forth in a forecast shall be approved in accordance with Clause 404 of this agreement.

1203. Advance Billings for Capital Items

Unit Operator may submit to each Party on or before the fifteenth (15th) day of any calendar month a reasonably detailed estimate of approved capital items for the succeeding calendar month with a request for payment in advance. Each Party shall pay Unit Operator its share thereof within thirty (30) days after receipt of such request or by the fifteenth (15th) day of the month for which the advance is requested, whichever is later. Unit Operator's monthly billings shall reflect credit for any advances and any differences between actual costs and expenses and amounts advanced will be adjusted as required. Any amounts advanced by a Party hereunder and then not required by Operator for charges to the Joint Account within the time and in the manner proposed, shall be refunded to that Party in a prompt and timely manner, but in any event prior to the end of the calendar month following the month to which such advances applied; following which any amount not so refunded may, at that Party's option, bear interest (payable by Operator for the account of the Party) at the rate provided for in Clause 1207 from the day such refund is due until it is paid.

1204. Operating Fund

Unit Operator may by notice require the Parties to advance for an operating fund their respective proportions of one-twelfth (1/12th) of the expenditures, other than expenditures for capital items, proposed for a calendar year in an approved forecast. Within thirty (30) days after receipt of such request each Party shall pay Unit Operator its share thereof. After the establishment of the operating fund, each Party shall remit its share of actual costs and expenses in accordance with Clause 1205, thus maintaining the operating fund intact. The amount of the operating fund may be increased or decreased at the direction of the Operating Committee, who shall review the matter annually or whenever requested by a Party.

**Net Billing** - If under this Agreement, revenues are received and distributed to the Parties by the Unit Operator through a net billing, then notwithstanding the provisions of Clause 1204, Unit Operator shall not request advances for operating funds from the Parties.

**1205. Regular Billings and Payments**

Unit Operator shall bill each Party on or before the last day of each month for its share of charges recorded during the preceding calendar month in accordance with Exhibit "F". Each Party shall pay all such bills within thirty (30) calendar days after receipt.

**1206. Commingling of Funds**

Unit Operator may commingle funds received by it hereunder with its own funds and with other funds in its possession. Any such commingling shall be for administrative convenience only, and Unit Operator shall hold all funds received by it under this Agreement in trust for the Parties; and monies advanced or paid to Unit Operator by or for a Party shall be applied only to their intended use and shall in no way be deemed to be funds belonging to Unit Operator other than in its capacity as the Party's trustee.

**1207. Unit Operator's Remedies**

If a Party fails to pay when due a bill rendered by Unit Operator, Unit Operator may give the Party a notice of nonpayment. After receipt of such notice, the amount unpaid as set forth in the notice shall at Unit Operator's discretion bear interest at the prime rate in effect at such time in the principal chartered bank in Canada used by the Unit Operator plus two percent (2%) per annum compounded monthly. The interest shall be for the Unit Operator's sole account unless the costs and expenses for which the bill was submitted were met by other Parties, pursuant to Clause 1208, in which event the interest shall be for the Parties contributing. Further, Unit Operator may, after notice of nonpayment and while the bill remains unpaid, without limiting Unit Operator's other rights at law, exercise any or all of the following remedies:

- (a) set off against the amount unpaid, sums due or accruing to the Party from Unit Operator hereunder or any other source;
- (b) by notice accompanied by a copy of this agreement to any purchaser of the defaulting Party's share of production, require such purchaser to pay to Unit Operator the proceeds of such production which shall be applied towards payment of the amount unpaid and Unit Operator is hereby constituted irrevocably the attorney of the Party for the purpose of executing the instruments necessary to effect an assignment of such proceeds.

Books and records kept by Unit Operator with respect to Unit Operations shall constitute conclusive proof of the existence or nonexistence of any default, subject, however, to all rights of inspection, verification and audit provided in this agreement. The exercise of the rights granted in this Clause shall not relieve a defaulting Party from its obligations to pay royalty currently, as provided elsewhere in this agreement.

**1208. Contribution by Parties**

If Unit Operator has not received full payment of a Party's share of the costs and expenses of Unit Operations within ninety (90) days following the date when payment was due, each of the other Parties shall, upon being billed therefore by Unit Operator, contribute a fraction of the unpaid amount, excluding interest thereon, having as its numerator the Party's Unit Participation and as its denominator the aggregate of the Unit Participation of all of the Parties exclusive of the Unit Participation of the defaulting Party; and thereupon each Party so contributing shall be proportionately subrogated to Unit Operator's rights pursuant to Clause 1207.

## **ARTICLE XIII**

### **OIL IN LEASE TANKAGE AND OVERPRODUCTION AS OF THE EFFECTIVE DATE**

**1301. Gauge of Merchantable Oil**

Unit Operator shall gauge all lease and other tanks delivered to it to ascertain the amount of merchantable oil in them as of the Effective Date. If any well producing into them has made more than its cumulative allowable production of oil from the proposed Unitized Zone as set by the Conservation Board, the amount of such overproduction then in the tanks shall be deemed to be Unitized Substances produced after the Effective Date. Except as aforesaid, the oil in the tanks shall remain at risk of and be the property of the persons owning it prior to the Effective Date, and upon request shall be delivered in kind to them, or in the absence of their request, shall be sold by Unit Operator for their



account. For the purpose of this Clause "merchantable oil" shall mean crude oil above the base of sale line or outlet or above one foot from the tank bottom whichever is lower.

1302. Overproduction

If any overproduction of oil from the proposed Unitized Zone has been sold by a Party prior to the Effective Date, such Party shall pay to Unit Operator for the Joint Account, the gross proceeds thereof less any royalty paid or payable thereon.

1303. No Allowance for Underproduction

No allowance shall be made to a Party for any underproduction of oil prior to the Effective Date

## ARTICLE XIV

### SURFACE RIGHTS

1401. Submission of List to Unit Operator

As soon as reasonably possible after executing this agreement, each Party shall submit to Unit Operator a list of all easements, right-of-ways, surface leases, rights of entry and other surface rights which it holds in connection with its operations in the proposed Unit Area, together with particulars thereof including rentals payable, if any.

1402. Surface Rights Required for Unit Operations

Unit Operator shall, as soon as practicable after the receipt of each of the aforesaid lists, advise in writing the Party submitting the list which, if any, of its listed surface rights will be required for Unit Operations. Subject to the other provisions of this Article, each Party shall continue to hold the surface rights so required and pay the applicable rentals and bill Unit Operator for the amount of rentals applicable to periods subsequent to the Effective Date. Unit Operator shall reimburse each Party for rentals so paid and the amounts thereof shall be for the Joint Account. Notwithstanding the foregoing, each Party holding surface rights required for Unit Operations may, at any time at its election, assign such surface rights to Unit Operator in accordance with Clause 1404.

1403. Surface Rights Jointly Used

Where there is a well or wells on a Tract in addition to a Unit Well, and surface rights are being used for production jointly from one or more of such other wells and the Unit Well, the rentals applicable to the surface rights shall be divided equally between the wells with respect to which the surface rights are being jointly used, and Unit Operator shall only be billed for the portion of such rentals which is applicable to the production of Unitized Substances from the Unit Well. For the purpose of this Clause, a well producing from more than one formation shall be considered a separate well for each respective productive formation.

1404. Assignment of Surface Rights

Unit Operator may require that any surface rights which are being used solely for Unit Operations be assigned to it. Any such assignment shall, however, contain an express reservation to the assignor of the right at any time upon request to use the assigned surface rights jointly with Unit Operator on the basis provided in Clause 1403. When the assigned surface rights are no longer required, Unit Operator shall so notify the assignor who may require Unit Operator to re-assign the surface rights to the assignor. The provisions of Clause 1405 shall apply, mutatis mutandis, in respect of any surface rights which are the subject of a notice given under this Clause.

1405. Surface Rights No Longer Required

Unit Operator may notify a Party that its surface rights or any of them are no longer required for Unit Operations, but any such notice shall be given a least sixty (60) calendar days prior to the date on which notice of surrender must be given to the surface owner or sixty (60) days prior to the date of accrual of a rental obligation, whichever is sooner. Unit Operator shall clean up the surface to the satisfaction of any governmental body having jurisdiction and to the reasonable satisfaction of the owner and occupier thereof. After giving such notice Unit Operator shall be relieved of its responsibility and liability with respect to the surface rights except any obligations already accrued, and shall be denied all benefit with respect to the surface rights, and shall thereafter be held harmless by the

party holding them from responsibility and liability as to the surface rights, which shall not thereafter be subject to this agreement.

1406. Surface Rights Held in Fee Simple

Subject to any prior grant thereof, Unit Operator may use for Unit Operations any surface rights held in fee simple by a Party upon payment to the Party of a rental commensurate with rentals paid for other like surface rights in the Unit Area.

1407. Acquisition of Additional Surface Rights

Unit Operator may acquire such additional surface rights as it deems necessary or desirable for Unit Operations.

1408. Sharing of Surface Rights

Notwithstanding the provisions of Clause 1006, Unit Operator may enter into agreements with any person for the sharing of any surface rights and all costs and expenses recovered or incurred by Unit Operator pursuant to such agreements shall be for the Joint Account.

## ARTICLE XV ABANDONMENT OF WELLS

1501. Rights of Former Owners

If the Operating Committee decides to plug and abandon permanently any Unit Well, Unit Operator shall give notice of this decision to the Party owning the Working Interest in the Tract upon which the well is located. The Party may elect by notice to Unit Operator within sixty (60) calendar days, or forty-eight (48) hours if a drilling rig is in place, of receipt of notice, to take over and own the well and deepen or plug it back to a formation other than the Unitized Zone. Within ten (10) calendar days after the party has so elected it shall pay to Unit Operator for the Joint Account the fair net salvage value of the casing and equipment in and on the well, as estimated and fixed by the Operating committee. Unit Operator shall seal off the Unitized Zone in the well before handing it over to the Party and thereupon Unit Operator shall be relieved of its responsibility and liability with respect to the well, except any obligations already accrued, and shall be denied all benefit with respect to the well and shall thereafter be held harmless by the party so electing from responsibility and liability as to the well, which shall not thereafter be subject to this agreement.

1502. Abandonment of Wells

If the party receiving a notice pursuant to Clause 1501 does not elect to take over the Unit Well proposed for abandonment, Unit Operator shall abandon the Unit Well in accordance with applicable laws and regulations and the cost of such abandonment shall be for the Joint Account.

1503. Surface Clean-Up

Upon the abandonment of any well in the Unit Area, Unit Operator or the Party abandoning the well shall clean up the surface at the well site to the satisfaction of any governmental body having jurisdiction and to the reasonable satisfaction of the owner or occupier thereof.

## ARTICLE XVI TERM OF AGREEMENT

1601. Term

This agreement is binding upon a person who executes and delivers a counterpart thereof to Unit Operator, and that person is bound by this agreement as of the time of such delivery. Subject to Article XVII, this agreement shall remain in full force and effect while Unitized Substances are produced or are capable of being produced from the Unitized Zone in paying quantities and thereafter until all Unit Wells have been plugged and abandoned, and the Unit

Facilities have been salvaged and the accounts between the parties have been settled. Notwithstanding anything herein contained, this agreement may be terminated by the vote provided for in Clause 404(c)(v).

## ARTICLE XVII COMMENCEMENT DATE

### 1701. Commencement Date

Although this agreement is binding upon a Party from the time that Party executes and delivers one counterpart thereof to Unit Operator, the Commencement Date for actions to be taken by the Parties to carry out the purposes of this agreement in accordance with its provisions shall be 8:00 a.m. on the day next following the day when Unit Operator is satisfied that owners of Working Interests having Unit Participation totaling one hundred percent (100%), as set forth in the original Exhibit "D" have become Parties. Unit Operator shall notify the Parties thereof. If the unitization provided for in the Unit Agreement has not become effective within the time frame stated therein, this Agreement shall thereupon terminate. If this agreement so terminates, all expenditures made in anticipation of the unitization becoming effective shall be borne by the Parties in the proportion that the Unit Participation of each bears to the combined Unit Participation of all the Parties.

## ARTICLE XVIII ABANDONMENT OF OPERATIONS

### 1801. Right to Operate

The owner of the Working Interest in a Tract desiring to take over and continue to operate a Unit Well located thereon may, upon the termination of this agreement, do so by paying Unit Operator for the Joint Account, the fair net salvage value of the casing and equipment in and on the well as estimated and fixed by the Operating Committee, and by agreeing to plug the well when it is finally abandoned.

### 1802. Salvaging Wells

With respect to all wells not taken over for continued operations pursuant to Clause 1801, Unit Operator shall, for the Joint Account, salvage as much of the casing and equipment in or on such wells as can economically and reasonably be salvaged, and cause the wells to be properly plugged and abandoned.

### 1803. Cost of Salvaging

The cost of salvaging, liquidation or other distribution of assets and properties used in Unit Operations shall be for the Joint Account.

## ARTICLE XIX GENERAL

### 1901. Affects Working Interest Only

This agreement affects only the Working Interests of the Parties. Any Royalty Interest is governed solely by the Unit Agreement.

### 1902. Execution Without Prejudice

The execution of this agreement by parties who claim title to any interest in the Unit Area shall not constitute a waiver of any such claim, but any Party who succeeds to the title to a Working Interest in a Tract shall be bound by this agreement with respect to such Working Interest.

### 1903. Lien on or Assignment of Production

If any interest of a Party in a Tract or Unitized Substances or the proceeds or value thereof is subject to a lien, assignment of production or other encumbrance, the owner or holder of such lien, assignment or encumbrance, by consenting to this agreement in writing, agrees that such lien, assignment or encumbrance shall, from the Effective Date, continue in effect, but shall apply only to such interest as the same is amended, modified and affected by this agreement and the Unit Agreement, and shall be subject to such agreements with respect to the Party and to such interest.

1904. No Partitioning

A Party shall not resort to any action for partition or sale in lieu of partition of the Unit Facilities or any lands affected by this agreement

1905. No Surrender Without Consent

A Party shall not surrender its Working Interest in a Tract without the prior consent of the Operating Committee.

1906. Waivers

A waiver of any breach of a provision of this agreement shall not be binding upon a Party unless it is in writing and signed and such waiver shall not affect a Party's rights with respect to any other or future breach whether of a similar or different nature.

1907. Suits

A Party who is sued on an alleged cause of action arising out of Unit Operations shall forthwith notify every other Party.

1908. Further Assurances

Each Party shall from time to time and at all times do all such further acts and execute and deliver all such further deeds and documents as required in order fully to perform and carry out this agreement.

1909. Restriction on Dispositions

A Party shall not make any disposition of a Working Interest which does not include corresponding interest in the Unit Facilities. No Working Interest shall be owned apart from a corresponding interest in the Unit Facilities and vice versa.

1910. United States Internal Revenue Provision

Each Party agrees that if for purposes of the United States Internal Revenue Code of 1954 this agreement or the relationship established thereby constitutes a partnership, as defined in Section 761(a) of the said Code, each Party, who is entitled under the said Section 761(a) to elect, shall and does hereby elect to have the said partnership excluded from the application of Subchapter K or Chapter 1 of Subtitle A of the said Code, or such portion thereof as the Secretary of the Treasury of the United States or his delegates shall permit by election to be excluded therefrom. The Unit Operator is authorized to execute such election on behalf of the parties who are entitled to make such election and to file the election with the proper United States government office or agency, and Unit Operator is further authorized and directed to execute and file such additional and further evidence of such election as may be required; provided that if Unit Operator is not subject to the said Code with respect to the Unit Area, the obligations of Unit Operator under this Clause shall be carried out by the Party hereto who is subject to the said Code with respect to the Unit Area and who holds the greatest Unit Participation.

1911. Notices and Communications

All notices or communications hereunder shall be in writing and in lieu of personal service may be given or made by prepaid telecommunication or by mailing in a sealed and properly addressed envelope with postage prepaid. Notices or communications shall be deemed to have been received twelve (12) hours after the sending thereof in the case of a telecommunication, and ninety-six (96) hours after the date of mailing in the case of mailing, in either case excluding Saturdays, Sundays and statutory holidays. The address appearing below the execution of each Party shall be the address to which notices and communications to it shall be directed. A Party may change its address by notice to Unit Operator. Upon request Unit Operator shall furnish to any Party the address for service for any other Party.

**1912. Ensuring Clause**

This agreement shall enure to the benefit of and be binding upon the Parties and their respective heirs, executors, administrators, successors and assigns.

**1913. Force Majeure**

Neither Unit Operator nor any Party shall be deemed to be in default with respect to non-performance of its obligations hereunder, other than financial, if and so long as its non-performance is due, in whole or in part, to any cause beyond its reasonable control, but lack of funds shall not be deemed to be a cause beyond a Party's reasonable control. The performance of such obligations shall begin or be resumed within a reasonable time after such cause has been removed. Nothing herein contained shall be construed to require Unit Operator or any Party to settle any strike, lookout or other difficulty by acceding against its judgment to the demands of opposing persons in any labour disputes.

Where the performance of Unit Operator or of a Party is prevented or materially affected as foreshad, Unit Operator or the Party affected shall give notice and reasonable full particulars thereof to the other parties within a reasonable time after the occurrence of the cause relied upon, and shall use reasonable diligence to put itself again in a position to carry out its obligations hereunder.

1914. Execution in Counterpart

This agreement may be executed in separate counterparts and all the executed counterparts together shall constitute one agreement.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

TUNDRA OIL AND GAS LTD.

May 27, 1998  
(DATE)

D. Nielsen  
D. Szymanski

ADDRESS FOR SERVICE:

1111 One Lombard Place

Winnipeg, MB R3B 0X4

Execution Page forming part of the Unit Operating Agreement - Cromer Unit No. 1

**EXHIBIT 'D'**

**Attached to and made part of an Agreement Entitled  
Unit Operating Agreement - Cromer Unit No. 1**

**List of parties and their respective Unit Participation  
April 15, 1998**

<b>Party</b>	<b>Unit Participation %</b>
<b>Tundra Oil and Gas Ltd.</b>	<b>100.00000</b>
	<b>100.00000</b>

**EXHIBIT 'E'**

**Attached to and made part of an Agreement Entitled  
Unit Operating Agreement - Cromer Unit No. 1**

**LIST OF UNIT WELLS**

**April 15, 1998**

Tundra Daly Prov.	RE 16-11-09-28 WPM
Tundra Daly Prov.	RE 12-12-09-28 WPM
Tundra Daly Prov.	RE 02-14-09-28 WPM
Tundra Daly COM	A06-14-09-28 WPM
Tundra et al Daly Prov.	10-14-09-28 WPM
Tundra Daly Prov.	11-14-09-28 WPM
Tundra Daly Prov.	RE 13-14-09-28 WPM
Tundra et al Daly Prov. COM	14-14-09-28 WPM
Tundra et al Daly COM	02-23-09-28 WPM
Tundra et al Daly COM	RE 04-23-09-28 WPM
Tundra Daly	06-23-09-28 WPM



## EXHIBIT 'F'

### Attached to and made part of an Agreement Entitled Unit Operating Agreement - Cromer Unit No. 1

## ACCOUNTING PROCEDURE

### ARTICLE I

#### GENERAL PROVISIONS

#### 101. Definitions

In this Accounting Procedure the following words and phrases shall have the following respective meanings, namely:

- (a) "Agreement" means the Agreement to which this Accounting Procedure is Exhibit "F".
- (b) "Completion Costs" means all expenditures incurred in preparing a well for the taking of production up to and including the initial installation of tubing and the wellhead in and on a well but does not include "Equipping Costs".
- (c) "Construction Project" means any construction or installation undertaken for the Joint Account, including each subsequent addition thereto or alteration thereof or AFE'd replacement of Material thereon and Equipping Costs of a well, but does not include Drilling. For purposes of Clause 302, each addition, alteration or replacement hereunder will be considered as a separate Construction Project except that multiple projects of a similar nature being constructed under a single program will be consolidated as a single Construction Project.
- (d) "Controllable Material" means Material which at the time is so classified in the Controllable Material Price Catalogue as most recently recommended by the Petroleum Accountants Society of Canada.
- (e) "Drilling" means the use of a rig and crew for the drilling, completing, production testing, capping, plugging and abandoning, deepening, plugging back, redrilling or reconditioning of a well (except routine cleanout and pump or rod pulling operations) or the converting of a well to a source, input, observation or producing well, and includes Completion Costs but does not include Equipping Costs.
- (f) "Equipping Costs" of a well means all expenditures incurred beyond Completion Costs to acquire and install equipment required to produce petroleum substances from the well including pump (or other artificial lift equipment), the acquisition and installation of flow lines and production tankage serving the well and where necessary a heater, dehydrator or other facility for the initial treatment of the petroleum substances produced from the well to prepare such production for transport to market, but specifically excluding costs incurred beyond the point of entry into a gathering system, plant or other common facility which is or will be operated pursuant to a separate agreement.
- (g) "Joint Account" means the account showing the charges paid and credits received as a result of the Unit Operations and which are to be shared by the Parties in accordance with the terms of the Agreement.
- (h) "Material" means equipment or supplies acquired for use in the conduct of Unit Operations.
  - i) Condition "A" means that which is new;
  - ii) Condition "B" means that which has been used but is suitable for its original function without reconditioning;
  - iii) Condition "C" means that which has been used and would be suitable for its original function after reconditioning or that which cannot be reconditioned for, but has a limited service in, its original function;
  - iv) Condition "D" means that which is not suitable for its original function but is useable for another function;
  - v) Condition "E" means that which is junk.
- (i) "New Price" means the current price of Condition "A" Material at the nearest reputable supply store where such Material is available or at the nearest receiving point to which such Material could be delivered, whichever is closer to the Unit Property. Tubular goods 50.8 mm (two inches) in diameter and over shall be priced on a carload basis. Any cash discount that may be allowed by a dealer shall not be deducted in determining New Price.
- (j) "Non-Operator" means a Party to the Agreement other than the Operator.

- (k) "Operating Committee" means the committee established under Clause 401 of the Agreement.
- (l) "Operation and Maintenance" means all operations other than Drilling and Construction Projects conducted under the terms of the Agreement.
- (m) "Operator" means the Party designated to conduct Unit Operations.
- (n) "Party" means a person who is bound by the Agreement.
- (o) "First Level Supervisor" means the employee whose primary function is the direct supervision of other employees and/or contract labour directly employed in a field operating capacity.
- (p) "Technical Employee" means the employee having special and specific engineering, geological or other professional skills such as, but not limited to engineers, geologists, geophysicists, technologists and landmen whose primary function is the handling of specific operating conditions and problems for the benefit of the Unit Operation.
- (q) "Unit Property" means all property subject to the Agreement.

#### 102. Statement and Billings

Operator shall bill Non-Operator on or before the last day of each month for its proportionate share of the Joint Account for the preceding month. Such bills shall be accompanied by statements which identify the authority for expenditure or lease, or facility, and all charges and credits, summarized by appropriate classifications of investment and expense. Items of Controllable Material and unusual charges and credits shall be identified and described in detail.

In the event that revenue settlement statements are submitted by the Operator, sufficient volumetric, pricing and revenue information by product shall be provided to enable the Non-Operator to correctly calculate and record its income and pay its obligations attached thereto.

#### 103. Payments by Non-Operators

Unless otherwise provided in the Agreement, each Non-Operator shall pay all bills rendered under Clause 102 above within thirty (30) days of the issuing date of the bill(s).

#### 104. Unpaid Accounts

If payment of any bill or request for advances is not made within the time stipulated in Clauses 103, 104 and 105 the unpaid amount, at Operator's election, bear interest (payable by that Non-Operator) for the account of the Operator at the rate of two percent (2%) per annum higher than the average prime rate charged by the principal bank in Canada used by the Operator during the period with respect to which such interest is payable.

#### 105. Right to Protest or Question Bills

Payment of such bills shall not prejudice the right of Non-Operators to protest or question the correctness thereof. Subject to the exception noted in Clause 108, all statements rendered to Non-Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-six (26) months following the end of any such calendar year, unless within the said twenty six (26) month period, Non-Operator takes written exception thereto and makes claim on Operator for adjustment. The provisions of this Clause shall not prevent adjustments resulting from physical inventory of Controllable Material as provided for in Article V, Inventories, of this Accounting Procedure. If within the period referred to above, the Non-Operator or Operator establishes that an error in the Joint Account existing in said period also existed previous to the period, the Operator shall adjust the Joint Account retroactively to the inception of the error or to such other point in time as agreed upon. The adjustment shall be subject to the Non-Operator's right to audit.

#### 106. Audits

Operator's books, accounts and records relating to the operations hereunder for a calendar year may be audited with twenty-four (24) months next following the end of that year by:

- (a) An Audit Committee which shall be approved and appointed by the Operating Committee. The Operating Committee shall set the rates for remuneration and expenses, and costs of such audit shall be borne by all Non-Operators except the Operator, provided that, for the purposes of this paragraph 106, the term "Operator" shall include any affiliate corporation of Operator which is a Party to the Agreement; or,
- (b) Non-Operator shall give reasonable written notice to Operator and the other Non-Operators that it intends to audit, and the Non-Operator shall bear the total cost thereof.

Each audit shall be conducted so as to cause a minimum of inconvenience to Operator. Any claims of discrepancies disclosed by such audit shall be made in writing to the Operator within two (2) months of the completion of such audit. Operator shall respond to any claims of discrepancies within six (6) months of receipt of such claims, and the Joint Account shall be corrected to reflect the audit exceptions which have been resolved. An audit report shall be submitted to the Operator within two (2) months of the Operator's response. Unresolved exceptions contained in the audit report shall be submitted by the Operator to the Operating Committee for final resolution by vote pursuant to the agreement within six (6) months of receipt by Operator. The Joint Account shall be corrected to reflect the audit exceptions resolved by vote of the Operating Committee.

107. Asset Records

The Operator shall maintain detailed asset records of Controllable Material in such a manner as to enable an effective reconciliation of any physical inventory with the Joint Account.

108. Approvals

Where the approval of the Operating Committee is required in this Accounting Procedure, approval by the Operating Committee pursuant to the Agreement shall be binding on all Parties. In the absence of provisions in the Agreement, approval shall be obtained by Operator in writing from two (2) or more Parties having interests in the Unit Property totaling eighty percent (80%) or more. Each Party shall by notice cast its vote with the Operator fourteen (14) days from receipt of request for approval and a Party who does not vote on any matter shall be deemed conclusively to have voted affirmatively.

109. Rates

All rates set forth in this Accounting Procedure may be amended from time to time in accordance with Clause 108.

## ARTICLE II

### CHARGES

Operator shall charge the Joint Account with the following items:

201. Rentals and Other Payments

Acquisition and bonus costs, lease, license or permit deposits, rentals, renewal or extension fees, royalties, and other similar payments required to maintain the interest of the Parties in the Unit Property.

202. Labour and Automotive

For Operator's employees and vehicles:

- (a) field supervision (drilling, completions, workovers and production)
  - \$400 per day
- (b) construction supervision
  - \$350.00 per day
- (c) professional services (engineering, geology, land)
  - \$450.00 per day
- (d) field operations (including vehicle)
  - \$225.00 per producing well month
  - \$20.00 per hour (extra work)
- (e) mileage
  - \$0.30 per kilometer

All costs under Clause 202 for services not directly provided at the Unit location require the approval of the Operating Committee prior to charging the Joint Account.

203. Travel and Moving

- (a) Costs of personnel transfers and personal expense for the required staffing of the Unit Property, and subsequent replacements when such replacements are not for the primary benefit of the Operator. Such costs shall include transportation of employee, spouse and dependents and their personal and household effects and all other relocation costs in accordance with Operator's normal reimbursement policy.
- (b) Costs of traveling and personal expenses to and from and within the Unit Property for those employees whose salaries and wages are chargeable to the Joint Account.
- (c) Costs of traveling and personal expenses to and from locations other than the Unit Property on behalf of Unit Operator for employees whose salaries and wages are chargeable to the Joint Account.

204. Material

Material purchased or furnished by Operator for use in the Unit Operations as provided under Article IV including transportation cost thereof. So far as it is reasonably practicable and consistent with efficient and economical operation only such Material shall be purchased for or transferred to the Unit Property as may be required for the conduct of approved Unit Operations.

205. Services

- (a) Services relative to the Unit Operations incurred under contracts entered into by Operator with contractors or as agreed upon by the Operating Committee.
- (b) Professional consultants for geological wellsite and drilling supervision. Other professional consultants services only with approval of the Operating Committee.
- (c) Contract services related to chart reading or computer services, with approval of the Operating Committee. Charges shall not exceed commercial rates.
- (d) Utilities and other services provided by outside sources including transportation costs thereof.
- (e) Operator may charge for use of Operator's owned or leased facilities and equipment at rates, not exceeding those available in the immediate area for available like facilities and equipment.

206. Damages and Losses to Unit Property

Repair or replacement of Unit Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident or other causes, Operator shall furnish Non-Operators written notice of damages or losses incurred as soon as practicable after the damage or loss has been discovered.

207. Surface Rights and Legal Services

Acquisition or renewal of surface rights and periodic rentals and related legal services for title work. Fees and related expenses associated with other legal services may be charged only with the approval of the Operating Committee.

208. Taxes

Taxes paid for the Joint Account and with respect to the Goods and Services Tax (GST), the Parties hereby authorize Unit Operator, on their behalf, to make such joint election or elections as are required under Section 273 of the Excise Tax Act (Canada) as amended. The Parties shall be bound by any such election or elections, when made, for the duration of the term of this Agreement.

209. Insurance

- (a) Insurance premiums required to be paid for the Joint Account.
- (b) Any deductible or uninsured loss under any policy of insurance required to be carried by Operator.
- (c) That portion of any claim in excess of limits of insurance coverage required to be carried by Operator.
- (d) "Self-Insurance" premium equivalents for coverage as detailed in the insurance schedule are chargeable to the Joint Account. All "self-insurance" must comply with Federal and Provincial regulations.

210. Communications

Communication equipment located on the Unit Property and outgoing communications incurred by Operator directly for the Unit Property. Rental or ownership and any other related costs of operating mobile transmitter/receiver equipment in vehicles directly servicing the Unit Property. Other communication services as agreed upon by the Operating Committee.

211. Camp and Housing

Operation and maintenance of all necessary camp and housing facilities for, and boarding of, employees whose salaries and wages are for the Joint Account provided that the charges for Operator's owned or leased facilities shall be commensurate with the costs of ownership, leasing, and operation thereof, including depreciation and interest on depreciated investment, less any revenue therefrom. The annual interest rate on investment shall not exceed the prime bank rate of the principal bank in Canada used by the Operator plus one percent (1%) determined at the beginning of each year. When operations in addition to Unit Operations are served by these facilities, the charge for such facilities shall be apportioned among all such operations on an equitable basis.

212. Central Production Control

- (a) Automated field and central production control facilities owned or leased by Operator including employee costs for maintenance and operation of the central production control system and related computer facilities serving the Unit Operations shall be allocated to each operation served on an equitable basis.
- (b) Electronic/computerized gas chart reading and other computer usage shall not be charged to the Joint Account, unless approved by the Operating Committee.

213. Ecological and Environmental

The cost of meeting requirements, whether statutory or otherwise, relating to the ecology or environment of the Unit Property. Costs of related studies shall be subject to the approval of the Operating Committee.

214. Audit of Contract Services

With prior approval of the Operating Committee, the cost of the audits of contract services shall be for the Joint Account. To the extent that the Operator performs and charges the Joint Account for such audits, it is agreed that Operator's Auditor's working papers and findings will be available for inspection and inquiring by Non-Operators.

215. Warehouse Handling

- (a) If a warehouse is not maintained as part of the Unit Property, Operator may charge as follows for Material delivered from the Operator's warehouse:
  - i) Two and one-half percent (2½%) of the cost of tubular goods 50.8 mm (two inches) in diameter and over, and each other item of Material having a New Price in excess of five thousand dollars (\$5,000) delivered from Operator's warehouse and two percent (2%) of the cost of all other Material delivered from Operator's warehouse.
- (b) Costs of maintaining warehouses which are part of the Unit Property.

216. Other Costs

Costs for which provision is not otherwise made within the Agreement or this Accounting Procedure, as agreed upon by the Operating Committee.

217. Limits to Expenditures

- (a) An expenditure for any undertaking, the total estimated cost of which is not in excess of twenty-five thousand dollars (\$25,000);
- (b) Expenditures which it deems necessary in emergencies to protect lives or property, but if it makes any said expenditure it promptly shall advise the Operating Committee; and,
- (c) Expenditures not in excess of ten thousand dollars (\$10,000) for full settlement of each damage claim resulting or arising from Unit Operations, other than those claims for which insurance has been provided

in Exhibit "G". Operator will furnish notice of damage or loss to each Party as soon as possible after notice of damage or loss has been received by Operator.

### ARTICLE III

#### OVERHEAD

301. In this Article III

- (a) "Cost" means total expenditures described in Article II (excluding those expenditures referred to in Clause 201 and expenses of litigation, judgments, settlement of claims, salvage credits for Material retired and the value of injected substances purchased for enhanced recovery) incurred in conducting Unit Operations.
- (b) "Overhead" means the cost to Operator of salaries, wages, employee benefits and all other expenses of employees and the cost of maintaining and operating all offices, camps, housing and other facilities other than those costs covered in Article II - Charges hereof.

Notwithstanding anything to the contrary contained in this Article III, it is specifically understood that any cash payments, incentives, grants, credits, waivers, exemptions, abatements or other benefits received by or available to the Operator from any governmental source pursuant to the Joint Account, shall not be taken into account when calculating any of the items set forth in Clause 302 of this Article III.

302. Overhead Rates

Notwithstanding that the actual Overhead may be greater or less, Operator shall charge the Joint Account for Overhead as follows:

- (a) For Each Drilling Well
  - (1) 3% of the first \$50,000 of Cost plus
  - (2) 2% of the next \$100,000 of Cost plus
  - (3) 1% of Cost exceeding the sum of (1) and (2)
- (b) For each Construction Project
  - (1) 5% of the first \$50,000 of Cost plus
  - (2) 3% of the next \$100,000 of Cost plus
  - (3) 1% of Cost exceeding the sum of (1) and (2)
- (c) For Operation and Maintenance
  - \$250 per producing well per month and per battery site. For this purpose a "Producing Well" means a well for the Joint Account that in a Calendar month:
    - (i) is equipped for and is capable of producing crude oil; or
    - (ii) is connected to a permanent gas sales outlet source or injection system; or
    - (iii) is used as an injection, source or disposal well; and injection, source or disposal well shall be active during at least one (1) day of the month; and a temporarily shut-in oil or gas well shall not be charged for overhead longer the three (3) consecutive months after being shut-in;

provided that a well that is Drilling during the entire month or is permanently shut-in and awaiting abandonment shall not be considered a Producing Well, and a well completed in more than one (1) zone for segregated production shall be considered a separate Producing Well for each such zone.

### ARTICLE IV

#### PRICING OF UNIT MATERIAL PURCHASES, TRANSFERS & DISPOSITIONS

Operator shall make proper and timely charges and credits for all Material movements affecting the Unit Property. Operator shall provide all Material for use on the Unit Property; however, at Operator's option such Material may be supplied by Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus Material. All sales of Conditions A, B, or C Material, the New Price of which is greater than twenty-five thousand dollars (\$25,000) shall be subject to approval by the Operating Committee. All other disposals of Material shall be at the discretion of the Operator provided that any sales shall be priced in accordance with Clause 402.

401. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. Credit for Material returned to vendor shall be for the Joint Account when adjustment has been received by the Operator.

**402. Transfers and Dispositions**

Material furnished to the Unit Property and Material transferred from the Unit Property or disposed of by the Operator, unless otherwise agreed to by the Operating Committee, shall be priced on the following basis exclusive of cash discounts.

**(a) New Material (Condition A)**

Condition A or new material including tubular goods, shall be priced at the New Price in effect on date of movement.

**(b) Good Used Material (Condition B)**

(1) Condition B Material moved to the Unit Property at seventy-five percent (75%) of New Price

(2) Condition B Material moved from the Unit Property:

(i) At seventy-five percent (75%) of New Price if Material was originally for the Joint Account as Condition A Material; or

(ii) At sixty-five percent (65%) of New Price if Material was originally for the Joint Account as good used Material at seventy-five (75%) of New Price.

**(c) Other Used Material (Conditions C, D, and E)**

(1) Condition C Material shall be priced at fifty percent (50%) of New Price.

(2) Condition D Material shall be priced at a value commensurate with its use or at prevailing prices.

(3) Condition E Material shall be priced at salvage value.

**ARTICLE V  
INVENTORIES**

**501. Periodic Inventory**

Periodic inventories of the Joint Account controllable Material shall be taken by the Operator at five (5) year intervals or as otherwise approved by the Operating Committee.

**502. Notice**

Written notice of the Operator's intention to conduct a periodic inventory shall be given to each Non-Operator at least sixty (60) days prior to commencing such inventory, during which time each Non-Operator may elect to be represented.

**503. Reconciliation of Inventory**

A reconciliation of the physical inventory with the Joint Account records shall be made by Operator and approved by the Operating Committee conducting the physical inventory. Operator shall submit a list of overages and shortages to all Non-Operators and shall make adjustments to the Joint Account records to reflect the physical inventory.

**504. Inventory Expense**

The costs of conducting periodic inventories of Joint Account Controllable Material shall be charged to the Joint Account. Costs shall be determined in the same manner as audit costs that are generally accepted by the industry. The costs of conducting inventories initiated at more frequent intervals by the Operator, shall be borne by the Operator.

**505. Special Inventories**

Each Non-Operator shall have the right at any time to request in writing the taking of a special inventory of Controllable Material which shall be commenced within sixty (60) days of receipt of the written notice. Such Non-Operator shall be entitled to be represented at the taking of the special inventory. All expenses incurred by the Operator in conducting the special inventory shall be borne by the requesting Party.



## EXHIBIT 'G'

### Attached to and made part of an Agreement Entitled Unit Operating Agreement - Cromer Unit No. 1

#### SCHEDULE OF INSURANCE INSURANCE TO BE CARRIED BY UNIT OPERATOR

##### 101. During Operations

In respect of operations hereunder, Unit Operator shall comply with, and require its contractors and subcontractors to comply with, the requirements of all Unemployment Insurance and Worker's Compensation legislation and shall hold or cause to be held with a reputable insurance company or companies, and shall maintain or cause to be maintained for the benefit of the Parties hereto, the insurance hereinafter set forth, and the cost thereof shall be for the Joint Account.

- (a) Employer's Liability covering each employee engaged in operations hereunder of not less than \$1,000,000 where such employee is not covered by Worker's Compensation.
- (b) Comprehensive General Liability Insurance, excluding products, with a combined single limit of not less than \$1,000,000 for each incident or bodily injury, death or property damage, subject to a deductible not greater than \$25,000 for each incident.
- (c) Automobile Public Liability and Property Damage Insurance covering all vehicles, owned or non-owned, operated and/or licensed by Unit Operator, with a combined single limit of not less than \$1,000,000 for each incident for bodily injury, death or property damage, subject to a deductible not greater than \$25,000 for each such incident.
- (d) Aircraft Public Liability and Property Damage Insurance, if aircraft are to be used in the operation, with a combined single limit of not less than \$5,000,000 for bodily injury, death and property damage.
- (e) Control of Well Insurance covering all future wells drilled in the Unit Area and operated for the Joint Account with a combined single limit of not less than \$2,000,000 for each incident, subject to a deductible not greater than \$25,000 for each such incident.

##### 102. General Terms

- (a) Unit Operator shall deposit with the Operating Committee, if requested, certificates of such insurance policies;
- (b) Each Party hereto shall be responsible for insuring its own interest in the Unit Area with respect to physical damage, loss of income, liability insurance not hereunder provided and for all other loss situations not mentioned elsewhere in this insurance exhibit;
- (c) All such insurance policies shall contain a waiver of the right of subrogation against any Party, their servants, agents or employees;
- (d) Operator shall require its contractors and subcontractors to carry insurance against such risks and in such amounts as Operator shall deem necessary.

## Notes on Cromer Unit #1

1. In general this "agreement" gives the "Working Interest Owners" the right to change the leases that the "Royalty Owners" have negotiated in any way that suits their wishes. This is the main objection the Royalty Owners have to it.
2. Continuation of Leases---If the current leases can be changed to coincide with the clauses in this agreement, which refer to these leases, then they are no longer valid leases if this agreement is signed. This agreement can supercede any part of the leases that it refers to. The Royalty Owners are giving " Carte Blanche" power to the "Working Interest Owners" who, in this case is "Tundra Oil and Gas". Re. 303, 304 & 401.
3. Need clarification for Clause 303, in particular Parts A and B. Based on what and which part take precedent?
4. Ratification - Clause 305 stated that the "Royalty Owners" should ratify their leases to make them conform to this agreement when they are not aware of what these amendments entail. I would suggest if this is legal it is certainly not ethical. Clause 305 and 1307 seem contradictory.
5. I would like further clarification of Clauses 502, 503, 902 & 1103. among others.

Questions: (we) refers to Royalty Owners

1. What happens if this waterflood injection proves to be ineffective?
  - a. Do we revert back to our original leases?
  - b. Is there any compensation for the person(s) who were receiving royalties from oil wells that were converted to injection wells? refer to 1403 & 1502.
2. There are provisions in our current leases we have negotiated for and could now lose due to this agreement. Notably certain costs such as transportation costs. Is there any way that such provisions could be retained?
3. How does this effect Surface Rights Agreements?

4. The Readjustment of Tract Participation in 906 (B) could severely decrease income for some Royalty Owners. Why is this necessary and is there any way to ensure this does not happen? This also applies to Clause 703 where I quote " Proper allowances shall be made for costs, expenses and charges including a reasonable return on investment". This, I believe, could be a way for the Working Interest Owners to circumvent our current leases and charge as much as they wish. Who sets this? Who monitors this?

5. Does Clause 1303 mean this agreement can come into force even if all owners do not sign?

6. I assume that production from this Unit would come from the Lodgepole as well as the Bakken formations. Is all this production co-mingled? Will any future wells likely be drilled into the Bakken formation?

Comment: While I realize a certain latitude must be given to produce oil economically under these conditions, I feel the Royalty Owners are losing all the protection they now have under the present leases.

We seem to be placed between " a rock and a hard place" because if we sign this agreement we jeopardize our present position with regard to our current leases and if we do not sign, these oil wells may be abandoned much sooner.

I say this with no rancor, only with the wish that these agreements themselves be amended to give Royalty Owners the same protection accorded the oil company.

Howard T Hayhurst

---

- frequency of oil analysis for commingling Lodgepole/Bakken  
in same unit No. 1

June 16, 1998

Mr. Brad Thiessen  
Tundra Oil and Gas Ltd.  
1111 - One Lombard Place  
Winnipeg MB R3B 0X4

Dear Brad:

**Re: Cromer Unit No. 1  
Unit Agreement**

Attached is a copy of the execution page from the subject unit agreement signed by the Minister of Energy and Mines. Please forward copies of the execution pages signed by all royalty and working interest owners. Water injection into the unit may not commence until the unit agreement has been executed by all parties and registered by the Petroleum Branch.

If you have any questions please don't hesitate to call the undersigned at 945-6574.

Yours truly,

ORIGINAL  
SIGNED BY

John N. Fox, P.Eng.  
Chief Petroleum Engineer

ORIGINAL SIGNED  
BY MINISTER.

CROMER UNIT NO. 1

**UNIT AGREEMENT**

UNIT AGREEMENT  
CROMER UNIT NO. 1

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**UNIT AGREEMENT**  
**CROMER UNIT NO. 1**

WHEREAS the Parties own Royalty Interests and Working Interests, or either of them, in the Unitized Zone;  
AND WHEREAS the Parties desire that the Unitized Zone be developed, produced and operated as a Unit, as hereinafter provided;

NOW THEREFORE in consideration of the covenants herein contained, the Parties agree as follows:

**ARTICLE I:     DEFINITIONS**

**101.     Definitions**

In this agreement:

- (a)    "Effective Date" means the time and date referred to in Article XIV;
- (b)    "Lease" means an instrument granting a Working Interest in any lands in the Unit Area;
- (c)    "Outside Substances" means any substances initially obtained from any source other than the Unitized Zone or any Unitized Substances with respect to which royalty has been paid;
- (d)    "Party" means a person who is bound by this Agreement;
- (e)    "Petroleum Branch" means the Department of Energy and Mines, Petroleum Branch established under The Oil and Gas Act;
- (f)    "Petroleum Substances" means petroleum, natural gas and related hydrocarbons (except coal) and all substances whether gaseous, liquid or solid, which are produced in association therewith, or any of them;
- (g)    "Royalty Interest" means
  - i)       an ownership, fee simple, or similar estate in Petroleum Substances in the Unitized Zone, or
  - ii)      a right to a share of Petroleum Substances produced from the Unitized Zone, to a share of the proceeds from the sale of such Petroleum Substances, or to a payment based on the quantity or value of such Petroleum Substances, but does not include a Working interest, the interest of a purchaser or such Petroleum Substances after production, or a mortgage, charge or like interest granted as security in a financial transaction;
- (h)    "Royalty Owner" means a Party owning a Royalty Interest in or in respect of Unitized Substances;
- (i)    "Spacing Unit" means the area allocated to a well by the Petroleum Branch with respect to the Unitized Zone for the purpose of drilling for or producing Petroleum Substances;
- (j)    "Tract" means a parcel of land described and given a Tract number in Exhibit "A" and shown outlined on Exhibit "B";
- (k)    "Tract Participation" means the Participation percentage allocated to a Tract pursuant to Article VI and set forth in Exhibit "A";
- (l)    "Unit Area" means the lands described in Exhibit "A" and shown outlined on Exhibit "B";
- (m)    "Unit Operations" means any operations or activities undertaken in connection with the Unitized Zone, the production or handling of Unitized Substances or the installation, operation, maintenance or removal of equipment or facilities, insofar as such operations or activities have been authorized or provided for under this agreement or the Unit Operating Agreement
- (n)    "Unit Operator" means the person who is so designated under the Unit Operating Agreement;
- (o)    "Unit Operating Agreement" means the agreement entitled "Unit Operating Agreement - Cromer Unit No. 1" entered into by the Working Interest Owners;
- (p)    "Unitized Zone" means the Bakken Formation of the Mississippian Age underlying the lands within the Unit Area as same is shown on the compensated neutron litho-density log of the Tundra Daly 11-14-9-28 WPM well in 11-14-9-28 WPM, in the Province of Manitoba between the intervals of 836.0

metres and 843.0 metres as measured from the Kelly bushing at 11-14-9-28 WPM and shown on Exhibit "C";

- (q) "Unitized Substances" means Petroleum Substances in or obtained from the Unitized Zone;
- (r) "Working Interest" means any interest which entitles the owner thereof to produce and dispose of, or to participate in the production and disposition of, Petroleum Substances from the Unitized Zone, and with which is associated a responsibility to bear all or a portion of the costs of recovering such Petroleum Substances;
- (s) "Working Interest Owner" means a party owning a Working Interest in or in respect of Unitized Substances;
- (t) "Minister" means the member of the Executive Council charged by the Lieutenant Governor in Council with the administration of The Oil and Gas Act of Manitoba.

## ARTICLE II: EXHIBITS

### 201. Exhibits

The following exhibits are attached to and incorporated in this agreement:

- (a) Exhibit "A" which numbers and describes each Tract and sets forth its Tract Participation, the names of the Working Interest Owners and their respective shares of the Working Interest, together with the names of the Royalty Owners and their respective shares of the Royalty Interest;
- (b) Exhibit "B" which is a plan of the Unit Area identifying the Tracts;
- (c) Exhibit "C" which is a reproduction of a portion of the compensated neutron litho-density log referred to in Subclause 101(p) hereof.

### 202. Exhibits Correct

Each exhibit shall be deemed conclusively to be correct to the effective time of a revision or correction thereof as herein provided.

### 203. Correction of Exhibits

If any mistake or mechanical error occurs in an exhibit, Unit Operator may, or upon request of the Working Interest Owners shall, prepare a corrected exhibit but the data used in establishing Tract Participation shall not be re-evaluated.

### 204. Effective Time

Any corrected exhibit prepared on or before the Effective Date or within ninety (90) days thereafter shall be effective on the Effective Date. Any corrected exhibit prepared after the said ninety (90) days shall be effective at 8:00 a.m. on the first day of the calendar month next following its preparation or on such other date as is determined by the Working Interest Owners.

### 205. Supplying of Exhibits

Each time that an exhibit is revised or corrected pursuant to this agreement, Unit Operator shall supply the Petroleum Branch with two copies and shall supply each Working Interest Owner with the number of copies of the exhibit it requests. Each Working Interest Owner shall supply each of its Royalty Owners, excepting the Crown, with a copy thereof.

### 206. Form of Revised or Corrected Exhibits

Exhibits that are revised or corrected shall show the effective time of the revision or correction and shall be numbered consecutively.



### ARTICLE III: UNITIZATION AND EFFECT

301. Unitization

On and after the Effective Date the interests of each Royalty Owner and of each Working Interest Owner in the Unitized Substances and in the Unitized Zone are hereby unitized, in accordance with the provisions of this agreement.

302. Personal Property Excepted

All lease and well equipment heretofore or hereafter placed by any of the Working Interest Owners on lands comprised in the Unit Area shall be deemed conclusively to be and shall remain personal property belonging to and may be removed by the Working Interest Owners. The Working Interest Owners' rights and interests therein are set forth in the Unit Operating Agreement.

303. Continuation of Leases

All Unit Operations and all production of Unitized Substances shall, except for the purpose of calculating payments to Royalty Owners, be deemed conclusively to be operations upon or production from all of the Unitized Zone in each Tract, and such operations or production shall continue in force and effect each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances as if such operations had been conducted on, or a well had been drilled and was producing from each Tract or Spacing Unit, or portion thereof, in the Unit Area.

If from time to time during the term of this Agreement the production of Unitized Substances and the conduct of other Unit Operations is temporarily interrupted or suspended:

- (a) for any period not exceeding ninety (90) consecutive days or
- (b) for any period during which an event of force majeure contemplated by Clause 1305 is in effect,

then, for the purposes of this Clause 303, Unitized Substances shall be deemed to have been produced throughout any such period.

304. Leases Amended

Each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances is hereby amended only to the extent necessary to make it conform to this agreement.

305. Ratification of Leases

Except for a Lease in respect of which a royalty Owner is involved in a court action which has been commenced and is pending on the Effective Date, each Royalty Owner hereby ratifies each Lease, as amended by this agreement, to which it is a party, and hereby confirms that no notice of default has been given and remains outstanding with respect to any such Lease, and that each Lease is in effect as of the Effective Date. The provisions of this Clause 305 do not constitute a waiver, and shall not give rise to an estoppel, of any right to pursue the enforcement of any outstanding obligation under any such Lease.

306. Effect of Unitization on Titles

Nothing in this agreement, nor the Unit Operating Agreement shall be construed as a transfer or exchange of any interest in the Leases, Tracts or Unitized Zone, or in the Unitized Substances before production thereof.

307. Name

The name of the Unit hereby constituted is "Cromer Unit No. 1".

308. Equipment and Facilities

All equipment and facilities used in connection with the Unit Operations and heretofore or hereafter installed, affixed or constructed by any of the Working Interest Owners on or in lands within the Unit Area are and shall remain the personal property of the Working Interest Owners, or such of them as may from time to time have an interest therein, and, except as otherwise provided in Clause 1503, no interest in any such equipment and facilities shall vest in the royalty Owners by virtue of the provisions of this Agreement.

#### ARTICLE IV: AUTHORITY TO WORKING INTEREST OWNERS

401. Operations

The Working Interest Owners are hereby granted the right to develop and operate the Unitized Zone without regard to the provisions of the Leases or the boundary lines of the Tract or Spacing Units in such manner and by such means and methods as the Working Interest Owners consider appropriate. Without limiting the generality of the foregoing, the Working Interest Owners shall have the right to inject any substance or combination of substances into the Unitized Zone and to convert and use as injection wells any wells now existing or hereafter drilled into the Unitized Zone.

402. Delegation

The Working Interest Owners may delegate to Unit Operator any of the rights and powers herein or otherwise granted to them.

403. Vote of Working Interest Owners

Any matter to be determined under this agreement by the Working Interest Owners may be determined by vote of the parties to the Unit Operating Agreement as prescribed therein.

#### ARTICLE V: INCLUSION AND QUALIFICATION OF TRACTS

501. Tracts Included on Effective Date

The Tracts included in the Unit Area as of the Effective Date are those Tracts which are qualified under Clause 502:

- (a) before the Effective Date; or
- (b) on or within ninety (90) days after the Effective Date.

502. Qualification of Tracts

A Tract is qualified for inclusion in the Unit Area when its title has been approved by the Working Interest Owners under Clause 1102 and when:

- (a) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of one hundred percent (100%) of the Royalty Interest therein have become Parties; or
- (b) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of less than one hundred percent (100%) of the Royalty Interest therein have become Parties, and such owners of Working Interests agree, if required by the other Working Interest Owners, to indemnify the other Working Interest Owners in a form and manner satisfactory to them for any loss or damages that may be suffered by such other Working Interest Owners in respect of claims and demands that, because of the inclusion of the Tract in the Unit Area, may be made by those owners of Royalty Interests in the Tract who have not become Parties; or
- (c) owners of the Working Interests therein have agreed with the owners of Working Interests then Parties and parties to the Operating Agreement as to the basis on which the Tract shall become qualified, where the Tract cannot be qualified pursuant to Subclause (a) or (b) of this Clause.

503. Revision of Exhibits

Within one hundred twenty (120) days after the Effective Date the exhibits shall be revised, if necessary, to set out only those Tracts included in the Unit Area under this Article. The revised Exhibit "A" shall set forth the Tract Participation of the Tracts recalculated on the same basis and using the same data as that used in the calculation of Tract Participation in the original Exhibit "A" and so that their summation is one hundred percent (100%). The exhibits as so revised shall be effective as of the Effective Date.

## ARTICLE VI: TRACT PARTICIPATION

### 601. Tract Participation

Each Tract has the Tract Participation ascribed to it in Exhibit "A".

## ARTICLE VII: ALLOCATION OF UNITIZED SUBSTANCES PRODUCED

### 701. Allocation to Tracts

Subject to Clauses 801 and 802 the Unitized Substances when produced shall be allocated to the Tracts in accordance with their Tract Participation. The amount of Unitized Substances allocated to each Tract, and only that amount, regardless of whether it be more or less than the amount of actual production of Unitized Substances from the well or wells, if any, on the Tract, shall be deemed conclusively to have been produced from the Tract.

### 702. Allocation Among Parties

The Unitized Substances allocated to a Tract shall be further allocated among the Working Interest Owners thereof in accordance with their respective percentage Working Interests in the Tract as set forth in Exhibit "A", and the Working Interest Owners of each Tract shall account to the Royalty Owners of such Tract for any royalty payable or deliverable to such Royalty Owners in respect of the Unitized Substances allocated to such Tract.

### 703. Calculation of Royalty

The Working Interest Owners of each Tract shall calculate royalty on the Unitized Substances allocated to the Tract at the applicable rate under the Lease, other agreement or instrument relating to the Tract. The Royalty Owners of each Tract agree to accept payment of royalty so calculated in satisfaction of the obligation of a Working Interest Owner to make royalty payments on Unitized Substances under the Lease, agreement or other instrument covering such Tract; but a lessee under a Lease shall not be relieved from making payment of royalty to its lessor if payment is not made by the Working Interest Owner as aforesaid. In calculating royalty on residue gas, sulphur and fluid hydrocarbons, or any of them, obtained by processing Unitized Substances, other than crude oil, by compression, absorption or other plant extraction or stabilization, proper allowances shall be made for costs, expenses and charges, including a reasonable return on investment, incurred in or attributable to gathering and processing the Unitized Substances.

### 704. Taking Unitized Substances in Kind

The Unitized Substances allocated to a Tract shall be delivered in kind at the time and place of production to the Working Interest Owners entitled thereto who may, if there is no interference with Unit Operations by them, construct, maintain and operate in the Unit Area all necessary facilities for taking delivery in kind.

### 705. Failure to Take in Kind

To the extent that a Party entitled to take in kind any of the Unitized Substances fails to take or otherwise dispose of them at the time and place of production, then so long as such failure continues, Unit Operator, as agent and for the account and at the expense of such Party may sell, store, inject or otherwise dispose of them. Where there is a sale the "net proceeds" remaining from the sale shall be paid to the Party. Unit Operator may contract for the sale thereof only for the minimum term obtainable which in no event shall exceed one (1) year. When Unit Operator has so contracted, the Party may take its share of the Unitized Substances in kind upon the expiration of the current sales contract. The "net proceeds" for the purpose of this Clause shall mean the proceeds from the sale of the non-taking Party's share of production, less all direct costs of the sale, including processing and shipping costs.

### 706. Royalty on Outside Substances

If an Outside Substance is injected into the Unitized Zone, the first like substance contained in the Unitized Substances subsequently produced and sold or used other than for operations hereunder shall be deemed conclusively to be that Outside Substance until a quantity equal to the quantity of the Outside Substance injected into the Unitized Zone is recovered. No royalty shall be payable on any substance which is deemed conclusively to be an Outside Substance.

707. Several Royalty Liability

Without limiting the generality of the provisions of Clauses 702 and 1304, nothing in this Agreement shall be construed as giving rise to any right entitling the Royalty Owners of a Tract to look to any Working Interest Owners other than the Working Interest Owners of such Tract for the satisfaction of royalty obligations in respect of such Tract; provided, however, that in the event that the Working Interest Owners of a Tract are not the same persons as the lessee under a Lease relating to the Tract, the provisions of this Clause 707 shall not be construed as relieving such lessee of any obligation to account for royalty payable or deliverable to the lessor under such Lease if the Working Interest Owners fail to comply with their obligations in that respect.

**ARTICLE VIII: USE, LOSS AND RE-INJECTION OF UNITIZED SUBSTANCES**

801. Use or Loss

The Working Interest Owners may use as much of the Unitized Substances, other than crude oil, as they deem necessary for Unit Operations. Unitized Substances so used or injected and Unitized Substances lost shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof.

802. Re-Injection

The Working Interest Owners are hereby granted the right to re-inject Unitized Substances into the Unitized Zone for any purpose related to the Unit Operations. Unitized Substances so injected shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof until they are recovered for sale or for use other than for Unit Operations.

**ARTICLE IX: ENLARGEMENT OF UNIT AREA**

901. Enlargement

After the expiration of ninety (90) days following the Effective Date, if an owner of a Working Interest in lands adjoining the Unit Area makes application to enlarge the Unit Area to include such adjoining lands which appear to be potentially productive of Petroleum Substances from the Unitized Zone the Working Interest Owners may approve the enlargement of the Unit Area to include such adjoining lands on such terms and conditions as the Working Interest Owners may consider appropriate, and, if such adjoining lands qualify for inclusion in the Unit Area under Clause 502, the Unit Area shall be enlarged to include such adjoining lands. Notwithstanding that any owner of a Working Interest or a Royalty Interest in such adjoining lands is already a Party, such owner shall not, for the purposes of the qualification of such adjoining lands under Clause 502, be considered to have executed and delivered this agreement until it executes and delivers to the Unit Operator an additional counterpart of this agreement incorporating exhibits which reflect the proposed enlargement and which are stated to be effective as of the effective date of such enlargement.

902. Adjustment of Tract Participation

The Tract Participation of each Tract added pursuant to Clause 901 shall be determined by the Working Interest Owners. The Tract Participation shall then be adjusted in order that:

- (a) the ratios of the Tract Participation of Tracts shown on Exhibit "A" immediately prior to the enlargement remain the same to each other; and
- (b) the total of the Tract Participation for all Tracts of the enlarged Unit Area and Unitized Zone is one hundred percent (100%).

903. Exhibits

Unit Operator shall revise Exhibits "A" and "B" as required by the enlargement.

904. Effective Time of Enlargement

An enlargement pursuant to Clause 901 and an adjustment of Tract Participation under this Article shall become effective at 8:00 a.m. on the first day of the first calendar month following approval of admission under Clause 901, Tract qualification under Clause 502 and the date the Unit Agreement is registered by the Petroleum Branch.

905. No Retroactive Adjustment

There shall never be any retroactive adjustment of the allocation of Unitized Substances by reason of an enlargement under this Article.

906. Possible Additional Tract

A possible additional tract comprising of LSD's 7-14/8-14-9-28 WPM has been identified. While development has not proceeded due to economic factors, the possibility exists that this tract will be developed prior to the expiry of current lease for this tract. Notwithstanding the other Clauses of Article IX, should a well be drilled on this tract, the following methodology will be used to redetermine the Tract Participation:

- (a) Six (6) months of production will be required from tract 7-14/8-14 with the last 90 operating days used in the Tract Participation redetermination.
- (b) Similarly, the production during the last 90 days, referenced to the same time period as tract 7-14/8-14, will be used in the redetermination of Tract Participation in the unitized wells.
- (c) The Tract Participation assigned to the 7-14/8-14 tract will be calculated on the basis of the production (refer to (a)) from the 7-14/8-14 tract as a percentage of the total Unit production during the same time period (last 90 operating days).
- (d) The Tract Participation of the remaining Tracts in the Unit will be adjusted in proportion to their percentage in the Unit prior to the development of tract 7-14/8-14, to reflect the change in tract 7-14/8-14.

## ARTICLE X: DISPUTES

1001. Disputes

If the title or right of a Party to receive in kind all or any portion of the Unitized Substances allocated to a Tract, or any share of the proceeds from the sale thereof, is in dispute, the Party concerned shall forthwith give notice thereof to Unit Operator. If Unit Operator is so notified or if Unit Operator is directed to do so by the Working Interest Owners in the event that it is otherwise informed of the dispute, Unit Operator shall withhold and sell the portion of the Unitized Substances the title or right to which is in dispute, and hold in trust the proceeds from the sale thereof until:

- (a) the Party concerned furnishes security in a form and manner satisfactory to the Working Interest Owners for the proper accounting thereof to the rightful owner or owners if the title or right of the Party shall fail in whole or in part, whereupon the proceeds shall be paid to the party; or
- (b) the title or right thereto is established by a final judgment of a Court or otherwise to the satisfaction of the Working Interest Owners, whereupon such proceeds shall be paid to the person rightfully entitled.

If Unit Operator does not comply with this Clause because it is not notified of a dispute by a Party concerned, that Party hereby agrees to indemnify and save harmless Unit Operator from any loss or damage suffered because of anything done or omitted to be done by Unit Operator because it was not notified.

## ARTICLE XI: APPROVAL OF TITLES

1101. Titles Committee

The Working Interest Owners shall appoint a Titles Committee which shall investigate the ownership of all Tracts. Each Working Interest Owner shall submit to the Title Committee such title data and information as the titles Committee may reasonably require from time to time. The Titles Committee shall report the result of its investigation to the Working Interest Owners specifying the titles to Tracts which it unanimously recommends for approval.

1102. Approval of Titles by Working Interest Owners

The Working Interest Owners may approve:

- (a) the titles of Working Interest Owners to Tracts which have been unanimously recommended for approval by the Titles Committee; and
- (b) the titles of Working Interest Owners to Tracts which have not been unanimously recommended for approval by the Titles Committee but with respect to which such Working Interest Owners have agreed to indemnify the other Working Interest Owners, in a form and manner satisfactory to them, from loss or damage that may be suffered by them in respect of claims and demands made because of subsequent failure of the Working Interest Owners' title.

Notwithstanding the foregoing, the Working Interest Owners may approve any title that has not been unanimously recommended for approval by the Titles Committee.

1103. Subsequent Failure of Title

If the title of a Working Interest Owner to a Tract fails, the Tract shall be excluded from this agreement and the Unit Operating Agreement as of 8:00 a.m. on the first day of the calendar month in which the failure of title is finally determined unless:

- (a) any other Party is held or declared to own the title in which event that Party shall be bound by this agreement and the Unit Operating Agreement in respect of the Tract; or
- (b) by the last day of the next following calendar month the Tract qualifies for inclusion in the Unit Area pursuant to Clause 502.

1104. Revision of Exhibits

Unit Operator shall revise the exhibits to reflect any change in ownership in or exclusion from this agreement of a Tract pursuant to Clause 1103. Where a Tract is excluded, the Tract Participation of the other Tracts shall each be increased, without changing their ratios to each other, so that their summation is one hundred percent (100%). The revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month in which the failure of title referred to in Clause 1103 is finally determined.

## ARTICLE XII: TRANSFER OF INTEREST

1201. Disposition

In this Clause "disposition" means a sale, assignment, transfer, lease, sublease, conveyance, parting with possession, or any transaction of a similar nature, whether by trust or otherwise. A disposition of an interest owned by a Party in a Tract shall cover the whole or an undivided interest in the Party's interest in such Tract. A disposition shall not be binding on Unit Operator until the acquiring parties who are not Parties have executed and delivered to Unit Operator counterparts of this agreement, and at least one of the parties thereto has given notice thereof to the Unit Operator. Unit Operator shall revise the exhibits to reflect each disposition of an interest in a Tract and the revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month next following the calendar month in which the notice is received by Unit Operator.

1202. Multiple Disposition Not to Increase Costs

If any disposition of an interest by a Party in a Tract should be made to multiple parties so that the expense or duties of Unit Operator are thereby increased, the Unit Operator may require the assignee parties (and Party if it retains an interest) to appoint one of their number as representing all of them for the purpose of this agreement, unless arrangements satisfactory to the Unit Operator are made to compensate the Unit Operator for the increased expenses or duties.

## ARTICLE XIII: IN GENERAL

### 1301. Execution in Counterpart

This agreement may be executed in separate counterparts and all the executed counterparts together shall constitute one agreement. Execution of this agreement by the Minister shall be on behalf of the Crown only as owner of Royalty Interest.

### 1302. Dual Capacity

If a Party owns a Working Interest and a Royalty Interest, its execution of this agreement shall constitute execution in both capacities.

### 1303. Subsequent Execution

An owner of an interest in a Tract who has not become a Party as of the date the Tract was included in the Unit Area under Article V or IX, may become a Party with respect to that interest only on such terms and conditions as may be prescribed by the Working Interest Owners.

### 1304. No Partnership

The duties and obligations of the Parties shall be separate and not joint or collective. Nothing contained in this agreement shall be construed to create a partnership or association.

### 1305. Force Majeure

Neither Unit Operator nor any Party shall be deemed to be in default with respect to non-performance including delay or failure to partially perform any or all of its obligations hereunder, other than financial, if and so long as its non-performance is due, in whole or in part, to any cause beyond its reasonable control, but lack of funds shall not be a cause beyond a Party's reasonable control. The performance of such obligations shall begin or be resumed within a reasonable time after such cause has been removed. Neither this agreement nor any Lease or any other agreement or instrument relating to the Unitized Zone or Unitized Substances shall terminate by reason of suspension of Unit Operations for the cause set forth in this Clause.

### 1306. Taxes

Each Party shall be separately liable to the extent of its ownership for all taxes on Unitized Substances and with respect to the production or sale of Unitized Substances. A Working Interest Owner may, at any time and from time to time, pay said taxes on behalf of its Royalty Owner and deduct the amount of the payment from the Royalty Owner's royalty. Those taxes with respect to the production or sale of Unitized Substances shall be adjusted so that they are borne as if the basis of taxation was the allocation of Unitized Substances hereunder.

### 1307. Right of Redemption

A Working Interest Owner may, at any time and from time to time, with full rights of subrogation, redeem for its Royalty Owner any agreement for sale, mortgage, or other lien or encumbrance of any kind or nature affecting any interest in the Unit Area in the event of default of payment by the Royalty Owner and deduct the amount of any payment made hereunder from the Royalty Owner's royalty.

### 1308. Interpretation

The Clause Headings in this agreement shall not be considered in interpreting the text.

### 1309. Number and Gender

In this agreement words importing the singular include the plural and vice versa; words importing the masculine gender include the feminine and vice versa; and words importing persons include firms or corporations and vice versa.

1310. Time

In this agreement all times are "official times" as defined in The Official Time Act of the Province of Manitoba.

1311. Compliance with Legislation

The provisions of The Oil and Gas Act and regulations of Manitoba thereunder, as amended from time to time, take precedence over this agreement.

1312. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Manitoba, and each of the Parties submits to the jurisdiction of the courts of the Province of Manitoba for the interpretation and enforcement hereof.

#### ARTICLE XIV: EFFECTIVE DATE

1401. Effective Date

The unitization provided for herein shall become effective at 8:00 a.m. on the first day of the first calendar month following:

- (a) the date of the qualification under Clause 502 of Tracts having a combined Tract Participation of one hundred percent (100%) as originally set out in Exhibit "A"; and
- (b) the date the Unit Agreement is registered by the Petroleum Branch.

1402. Notice of Effective Date

As soon as possible after the Effective Date Unit Operator shall notify all Working Interest Owners of the Effective Date and each of the Tracts qualified as of the Effective Date, and each Working Interest Owner shall advise each of its Royalty Owners of the Effective Date.

1403. Release of Parties

This agreement shall cease to bind the Parties if the unitization provided for herein has not become effective on or before the first day of December, 1998.

#### ARTICLE XV: TERM

1501. Effect of Execution and Delivery

Subject to Clause 1403 this agreement is binding upon a person who executes and delivers a counterpart thereof to Unit Operator, and that person is bound by this agreement as of the time of such delivery. This agreement inures to the benefit of and is binding upon the heirs, executors, administrators, successors and assigns of the Parties.

1502. Termination

This agreement terminates ninety (90) calendar days after all wells for the production of Unitized Substances in the Unit Area have been abandoned, plugged or disposed of or upon the termination of the Unit Operating Agreement, and thereafter the Parties shall be governed by the terms and provisions of their Leases and other agreements or instruments relating to the Unitized Zone or Unitized Substances.



1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of six (6) months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

1504. Notice to Royalty Owners


The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within thirty (30) calendar days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

HER MAJESTY THE QUEEN IN RIGHT OF  
THE PROVINCE OF MANITOBA

(DATE)

June 10, 1998

  
Minister of Energy and Mines

ADDRESS FOR SERVICE:

MANITOBA DEPARTMENT OF ENERGY AND MINES

360 - 1395 Ellice Avenue

Winnipeg, MB R3G 3P2

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

DORIS MARIE GOULD

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*2119 Agincourt Crescent*

*Burlington, ON L7P 1P3*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

SONIA HELEN JACQUES

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*P.O. Box 1375*

*Virden, MB R0M 2C0*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MONTREAL TRUST COMPANY

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*600, 530 Eighth Avenue SW*

*Calgary, AB T2P 3S8*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MONTREAL TRUST COMPANY

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*P.O. Box 369*

*Winnipeg, MB R3C 2J1*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MORRIS JOHN SENKIW

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*General Delivery*

*Virden, MB R0M 2C0*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

TUNDRA OIL AND GAS LTD.

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS FOR SERVICE:

*1111 One Lombard Place*

*Winnipeg, MB R3B 0X4*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1



IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

IRENE ANNE YAKOBOVICH

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*3406 Clover Place*

*Regina, SK S4V 1J1*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

**EXHIBIT 'A': TRACT PARTICIPATION**

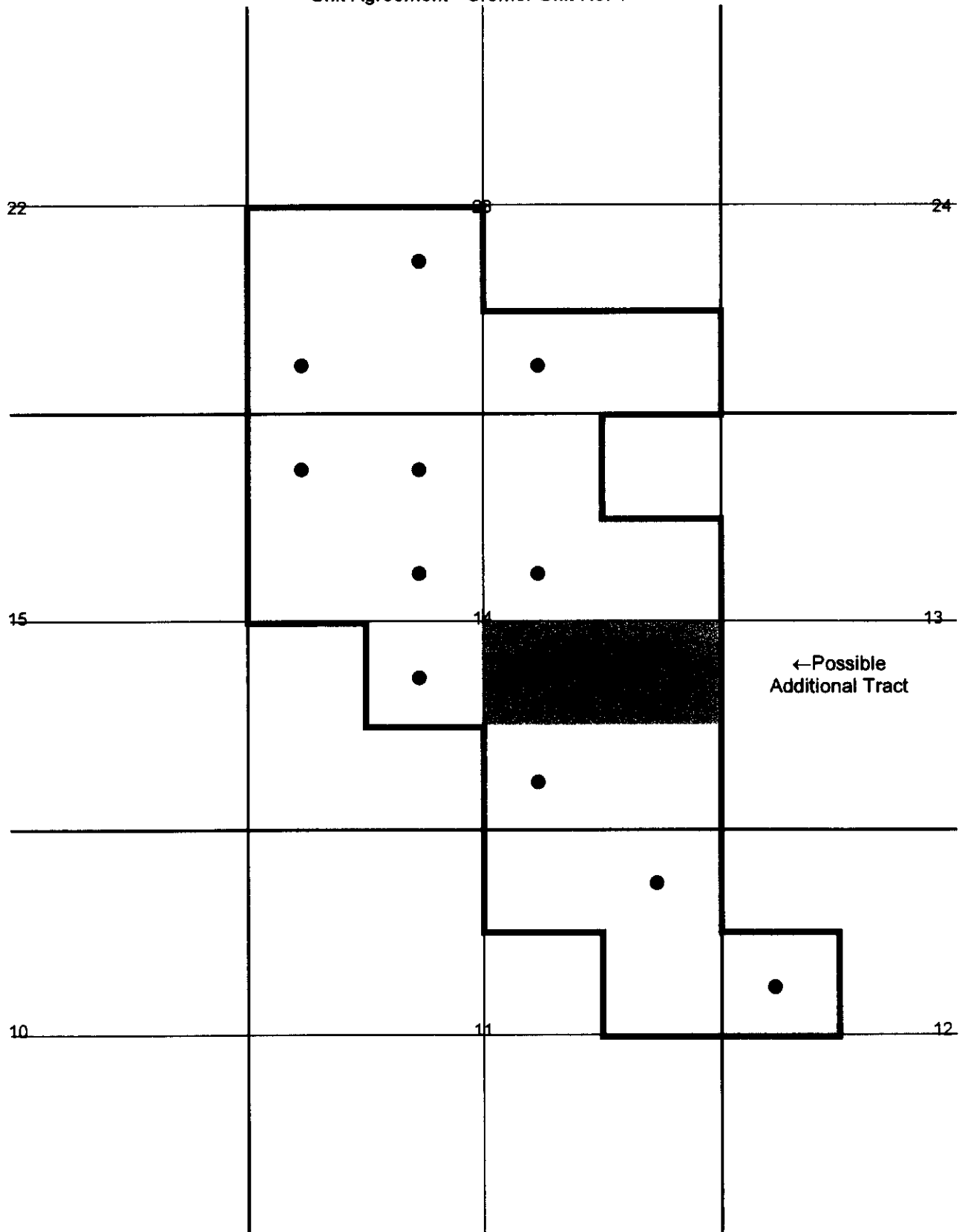
Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

April 15, 1998

Tract No.	Land Description LSD	Working Interest		Royalty Interest		Tract Participation %
		Owner	Share (%)	Owner	Share (%)	
1	15 & 16-11-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.60075
2	9-11 & 12-12-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.87640
3	1 & 2-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	15.12404
4	6-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Montreal Trust (CGY)	25.000	9.13245
				Montreal Trust (WPG)	75.000	
5	9 & 10-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	7.12317
6	11 & 12-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	9.49514
7	13-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	3.37289
8	14 & 15-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	11.19977
9	1 & 2-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	D.M. Gould	25.000	1.58856
				S.H. Jacques	25.000	
				M.J. Senkiw	25.000	
				I.A. Yakobovich	25.000	
10	3 & 4-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd.	50.000	3.09735
				Montreal Trust (CGY)	50.000	
11	5 & 6-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd.	50.000	12.38938
				Montreal Trust (CGY)	50.000	

EXHIBIT 'B'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

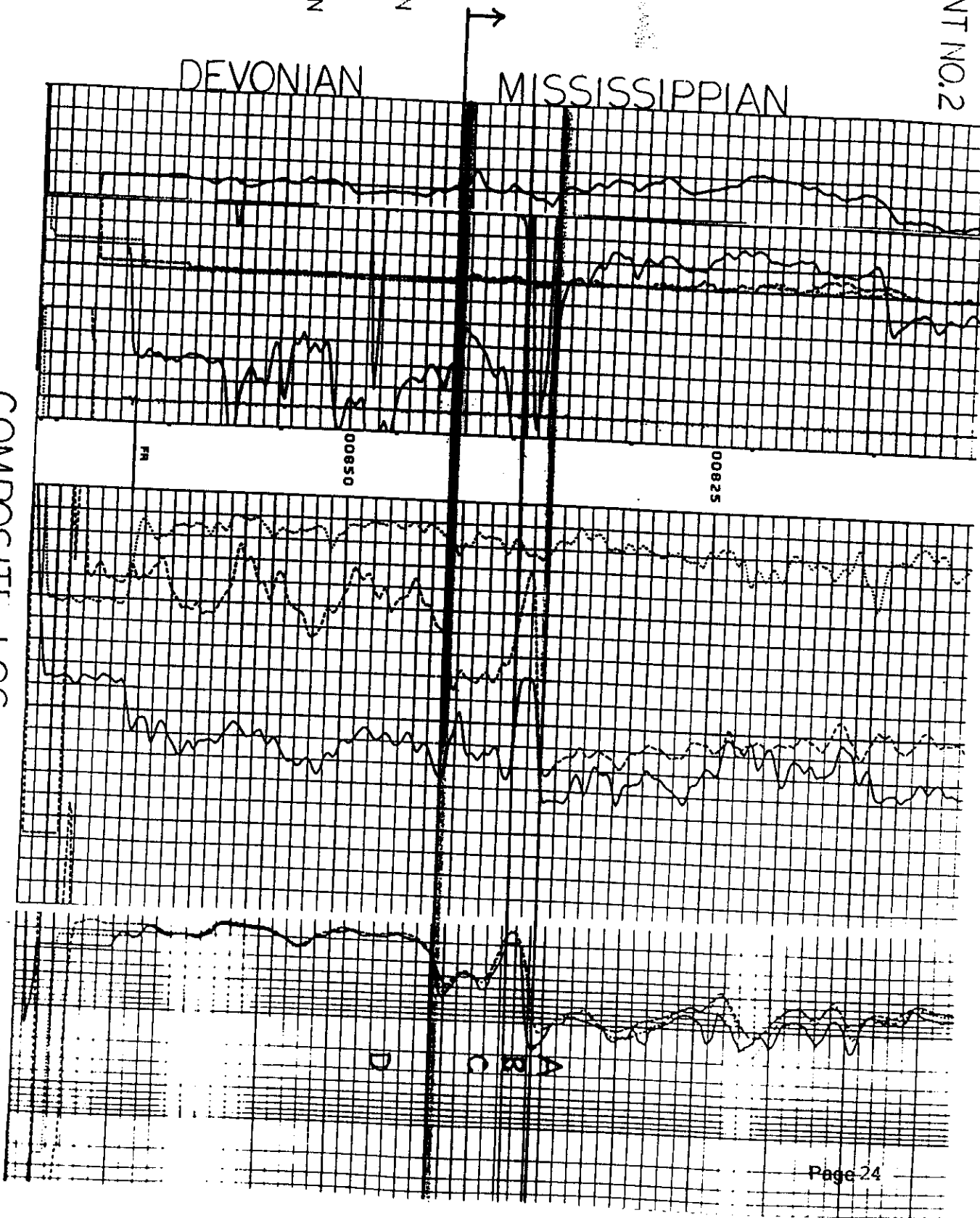


TWP 9 RGE 28 WPM

EXHIBIT 'C'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

LODGEPOLE FORMATION  
UPPER MEMBER BAKKEN  
MIDDLE MEMBER BAKKEN  
LYLETON FORMATION



COMPOSITE LOG

TUNDRA 11-14-09-28

INDUCTION LOG / CNL-DENSITY LOG



## Memorandum

Date May 29, 1998

To Garry Barnes  
A/Deputy Minister  
Energy and Mines

Subject **Cromer Unit No. 1 Unit Agreement**

From L. R. Dubreuil  
Director  
Petroleum & Energy Branch

Telephone

Tundra Oil and Gas Ltd. is proposing to unitize an area in the Daly Field, which includes eleven tracts. The proposed Cromer Unit No. 1 involves seven tracts for which the Crown is the royalty owner (i.e. mineral rights owner). Tundra has applied for approval to waterflood the unit area and has also submitted a copy of the proposed unit agreement for Cromer Unit No. 1 (attached) for execution by the Minister on behalf of the Crown as an affected royalty owner. Section 133 of The Oil and Gas Act provides for the Minister to enter such agreement on behalf of the Crown as a royalty owner.

### Recommendation:

It is recommended that the Minister enter into the Cromer Unit No. 1 Unit Agreement on behalf of the Crown with respect to Lsd's 9, 15 & 16 of Section 11, Lsd 12 of Section 12, and Lsd's 1, 2, 9, 10 & 15 and the NW/4 of Section 14 in Township 9, Range 28 WPM by signing two copies of the attached execution page for the Cromer Unit No. 1 Unit Agreement.

### Discussion:

The seven tracts in the proposed Cromer Unit No. 1 that contain Crown-owned mineral rights are highlighted in Attachment No. 1. Tundra Oil and Gas Ltd. holds all Crown leases. Currently the wells on the Crown tracts produce from the Daly Bakken I Pool at a combined rate of approximately 11 m<sup>3</sup>/d.

It is anticipated that waterflood operations will significantly increase the amount of oil recovered from the unit area and consequently increase royalty and production tax revenue to the Crown.

The proposed unit area is currently developed with a mix of 16 ha and 32 ha locations. Proposed tract factors are based on current productivity (Sep-Dec 1997). Upon review, Branch staff has found the proposed tract factors to be reasonable. On this basis, it is recommended that the Minister enter into the proposed Unit Agreement on behalf of the Crown as a royalty owner.

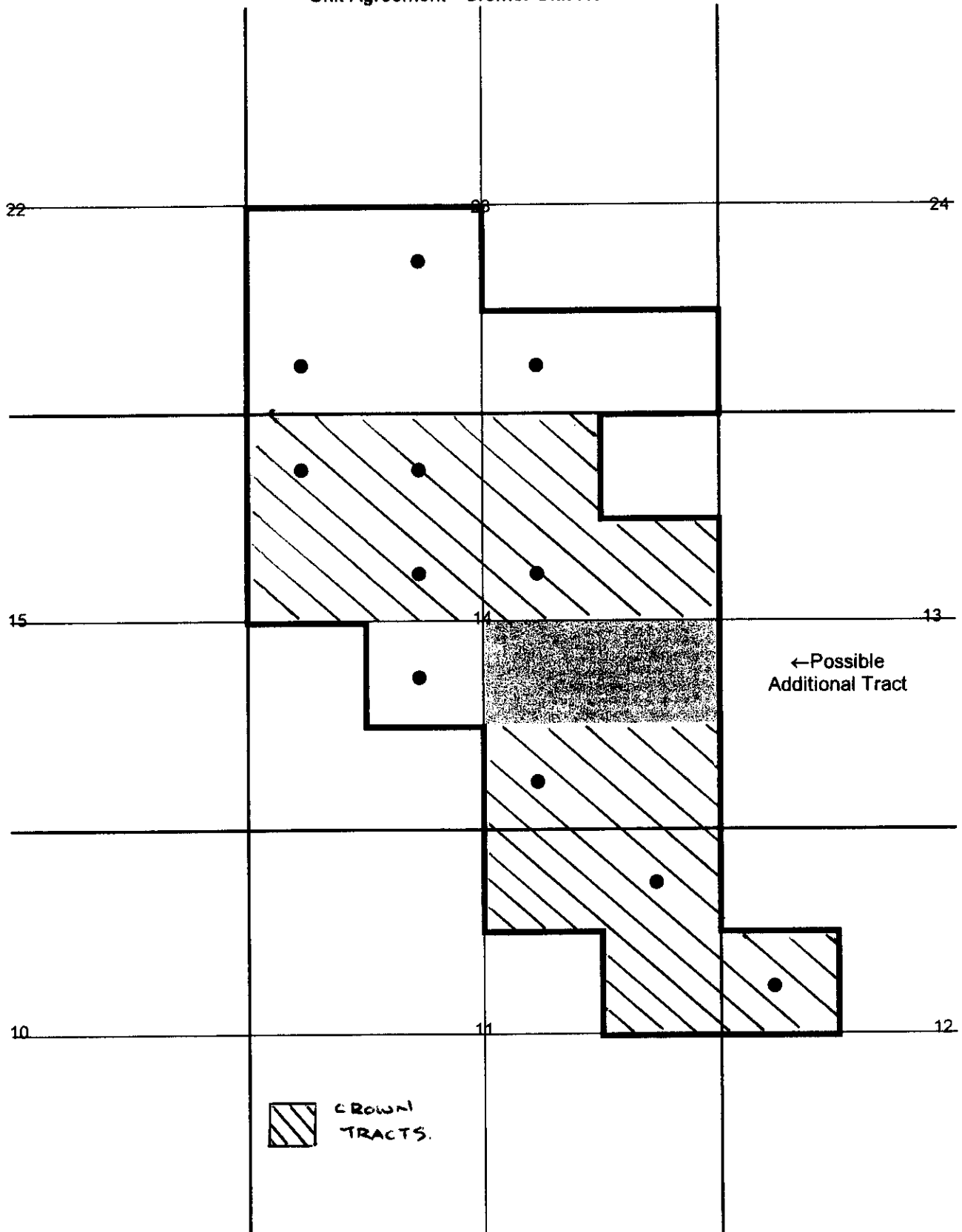
  
L. R. Dubreuil

JUN 01 1998

# ATTACHMENT No. 1

## EXHIBIT 'B'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1



TWP 9 RGE 28 WPM



1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 27, 1998

Doris Marie Gould  
2119 Agincourt Crescent  
Burlington, ON L7P 1P3

Sonia Helen Jacques  
P.O. Box 1375  
Virden, MB R0M 2C0

MANITOBA ENERGY & MINES

MAY 28 1998

PETROLEUM & ENERGY BRANCH

→ Manitoba Department of Energy & Mines  
360, 1395 Ellice Avenue  
Winnipeg, MB R3G 3P2

Montreal Trust Company  
600, 530 Eighth Avenue SW  
Calgary, AB T2P 3S8

Montreal Trust Company  
P.O. Box 369  
Winnipeg, MB R3C 2J1

Morris John Senkiw  
c/o P.O. Box 1960  
Virden, MB R0M 2C0

Irene Anne Yakobovich  
3406 Clover Place  
Regina, SK S4V 1J1

Ladies and Gentlemen:

RE: Proposed Unit Agreement - Cromer Unit No. 1

It has come to my attention that there was a misprint on Page 22 of the above agreement.

In this regard, you will find enclosed a replacement page for your copy of the Agreement. The change was made to Tract No. 4. Montreal Trust (CGY) share should be 75% and Montreal Trust (WPG) share should be 25%. Please replace the existing Exhibit "A" with this new copy.

I apologize for the inconvenience.

Sincerely,

TUNDRA OIL AND GAS LTD.

Suzanne R. Toews  
Land Administrator

/Enclosures

**EXHIBIT 'A': TRACT PARTICIPATION**

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

April 15, 1998

Tract No.	Land Description LSD	Working Interest		Royalty Interest		Tract Participation %
		Owner	Share (%)	Owner	Share (%)	
1	15 & 16-11-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.60075
2	9-11 & 12-12-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.87640
3	1 & 2-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	15.12404
4	6-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Montreal Trust (CGY) Montreal Trust (WPG)	75.000 25.000	9.13245
5	9 & 10-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	7.12317
6	11 & 12-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	9.49514
7	13-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	3.37289
8	14 & 15-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	11.19977
9	1 & 2-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	D.M. Gould S.H. Jacques M.J. Senkiw I.A. Yakobovich	25.000 25.000 25.000 25.000	1.58856
10	3 & 4-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd. Montreal Trust (CGY)	50.000 50.000	3.09735
11	5 & 6-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd. Montreal Trust (CGY)	50.000 50.000	12.38938



# **EXHIBIT 'A': TRACT PARTICIPATION**

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

April 15, 1998

Tract No.	Land Description LSD	Working Interest		Royalty Interest		Tract Participation %
		Owner	Share (%)	Owner	Share (%)	
1	15 & 16-11-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.60075
2	8-11 & 12-12-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.87640
3	1 & 2-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	15.12404
4	6-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Montreal Trust (CGY)	75.000	9.13245
				Montreal Trust (WPG)	25.000	
5	9 & 10-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	7.12317
6	11 & 12-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	9.49514
7	13-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	3.37299
8	14 & 15-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	11.19977
9	1 & 2-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	D.M. Gould	25.000	1.58856
				S.H. Jacques	25.000	
				M.J. Senkiw	25.000	
				I.A. Yakobovich	25.000	
10	3 & 4-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd.	50.000	3.09735
				Montreal Trust (CGY)	50.000	
11	5 & 6-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd.	50.000	12.38938
				Montreal Trust (CGY)	50.000	



1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 22, 1998

Manitoba Energy and Mines  
Petroleum and Energy Branch  
360 - 1395 Ellice Avenue  
Winnipeg, MB R3G 3P2

**Attention: John N. Fox, P. Eng.**  
**Chief Petroleum Engineer**

Dear John:

**Re: Cromer Unit No. 1 Unit Agreement**

Enclosed are two (2) copies of the above-noted Unit Agreement. You will note that the changes we discussed have been made. Please have the Minister of Energy and Mines sign all copies and return the attached signature page to my attention.

I am including copies of the cover letter for the packages I provided to the other royalty owners for your information. Thank you for your cooperation with this project.

Sincerely,

TUNDRA OIL AND GAS LTD.

A handwritten signature in black ink, appearing to read "Brad Thiessen".

Brad Thiessen  
Land Manager

BT/ps

Enclosure



---

1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 20, 1998

Irene Anne Yakobovich  
3406 Clover Place  
Regina, SK S4V 1J1

Dear Madame:

**RE: Cromer Unit No. 1  
Proposed Unit Agreement**

---

Enclosed is a package of information on the proposed Cromer Unit No. 1.

The Unit Agreement is the legal agreement required to unitize the Bakken Formation in the Cromer Area. The second document is the Pressure Maintenance Application that was submitted to Manitoba Energy and Mines. This document provided the technical justification for the proposed Unit Operation. I would draw your attention to the sixth page of this package which is a letter dated March 23, 1998 from Tundra Oil and Gas Ltd. to Manitoba Energy and Mines. This letter explains the basics of what is proposed.

Should you have any questions regarding the technical aspects of this project, please contact George Czyzewski of Tundra at (204) 934-5853. Should you wish to discuss this proposal on a more general level or would like an explanation of the Unit Agreement, please contact the undersigned at (204) 934-5856. Should you wish to discuss this with Manitoba Energy and Mines, please contact John Fox at (204) 945-6574.

If you approve of what is proposed, please sign the Signature Page to the Unit Agreement which is attached to this letter and return it to me.

Your early response would be appreciated.

Sincerely,

TUNDRA OIL AND GAS LTD.

A handwritten signature in black ink, appearing to be "BT" or a stylized "B" followed by a "T".

Brad Thiessen  
Land Manager

BT/ps

Enclosure



1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 20, 1998

Montreal Trust Company  
600, 530 Eighth Avenue S.W.  
Calgary, AB T2P 3S8

**Attention: Kathy Smith**

Dear Madame:

**RE: Cromer Unit No. 1  
Proposed Unit Agreement**

---

Enclosed is a package of information on the proposed Cromer Unit No. 1.

The Unit Agreement is the legal agreement required to unitize the Bakken Formation in the Cromer Area. The second document is the Pressure Maintenance Application that was submitted to Manitoba Energy and Mines. This document provided the technical justification for the proposed Unit Operation. I would draw your attention to the sixth page of this package which is a letter dated March 23, 1998 from Tundra Oil and Gas Ltd. to Manitoba Energy and Mines. This letter explains the basics of what is proposed.

Should you have any questions regarding the technical aspects of this project, please contact George Czyzewski of Tundra at (204) 934-5853. Should you wish to discuss this proposal on a more general level or would like an explanation of the Unit Agreement, please contact the undersigned at (204) 934-5856. Should you wish to discuss this with Manitoba Energy and Mines, please contact John Fox at (204) 945-6574.

If you approve of what is proposed, please sign the Signature Page to the Unit Agreement which is attached to this letter and return it to me.

Your early response would be appreciated.

Sincerely,

TUNDRA OIL AND GAS LTD.

A handwritten signature in black ink, appearing to be 'BT' or a stylized 'B' followed by a 'T'.

Brad Thiessen  
Land Manager

BT/ps

Enclosure



---

1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 20, 1998

Montreal Trust Company  
P.O. Box 369  
Winnipeg, MB R3C 2J1

Dear Sir/Madame:

**RE: Cromer Unit No. 1  
Proposed Unit Agreement**

---

Enclosed is a package of information on the proposed Cromer Unit No. 1.

The Unit Agreement is the legal agreement required to unitize the Bakken Formation in the Cromer Area. The second document is the Pressure Maintenance Application that was submitted to Manitoba Energy and Mines. This document provided the technical justification for the proposed Unit Operation. I would draw your attention to the sixth page of this package which is a letter dated March 23, 1998 from Tundra Oil and Gas Ltd. to Manitoba Energy and Mines. This letter explains the basics of what is proposed.

Should you have any questions regarding the technical aspects of this project, please contact George Czyzewski of Tundra at (204) 934-5853. Should you wish to discuss this proposal on a more general level or would like an explanation of the Unit Agreement, please contact the undersigned at (204) 934-5856. Should you wish to discuss this with Manitoba Energy and Mines, please contact John Fox at (204) 945-6574.

If you approve of what is proposed, please sign the Signature Page to the Unit Agreement which is attached to this letter and return it to me.

Your early response would be appreciated.

Sincerely,

TUNDRA OIL AND GAS LTD.

  
Brad Thiessen  
Land Manager

BT/ps

Enclosure



1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 20, 1998

Morris John Senkiw  
General Delivery  
Virden, MB R0M 2C0

Dear Sir:

**RE: Cromer Unit No. 1  
Proposed Unit Agreement**

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Your early response would be appreciated.

Sincerely,

TUNDRA OIL AND GAS LTD.

A handwritten signature in black ink, appearing to be "BT" or a stylized "B" followed by a "T".

Brad Thiessen  
Land Manager

BT/ps

Enclosure



1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 20, 1998

Sonia Helen Jacques  
P.O. Box 1375  
Virden, MB R0M 2C0

Dear Madame:

**RE: Cromer Unit No. 1  
Proposed Unit Agreement**

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Your early response would be appreciated.

Sincerely,

TUNDRA OIL AND GAS LTD.

A handwritten signature in black ink, appearing to be "BT", written over a horizontal line.

Brad Thiessen  
Land Manager

BT/ps

Enclosure



1111 One Lombard Place, Winnipeg, Manitoba R3B 0X4 TEL: (204) 934-5850 FAX: (204) 934-5820

May 20, 1998

Doris Marie Gould  
2119 Agincourt Crescent  
Burlington, ON L7P 1P3

Dear Madame:

**RE: Cromer Unit No. 1  
Proposed Unit Agreement**

---

Enclosed is a package of information on the proposed Cromer Unit No. 1.

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Your early response would be appreciated.

Sincerely,

TUNDRA OIL AND GAS LTD.

A handwritten signature in black ink, appearing to be "B. Thiessen", written in a cursive style.

Brad Thiessen  
Land Manager

BT/ps

Enclosure



BRANCH COMMENTS ON CROMER UNIT NO. 1  
UNIT AGREEMENT. DISCUSSED WITH BRAD THIESSEN  
(15-MAY-98).

① "UNITIZED ZONE"

- Tundra has only included a 2m interval at the base of the middle Bekken MM 841-843.
- note perforated interval is 839-843 m.
- recommend the "unitized zone" be enlarged to include the whole Bekken fm or as a minimum the whole middle m.Bk.

Branch Picks

Upper Bekken 836 -  
Middle Bekken 838 -  
Thick Fks 843 -

Tundra to  
revised to  
836-843 m

② see changes to Clause 906 refer to  
draft agreement

③ Exhibit B - reference should be made to  
the 7/14/8-14 tract as "Possible ADDITIONAL  
TRACT" refer to draft agreement



## FAX COVER PAGE

DATE: May 8, 1998  
TO: Petroleum Branch  
ATTN: John Fox  
FROM: Brad Thiessen

PAGE 1 OF 25  
(including cover page)

FAX #

FAX # (204) 934-5820  
TEL # (204) 934-5856

As we discussed,  
I would draw your attention  
to Clause 906.

Your comments would be  
appreciated.

Brad.

If you do not receive all the pages in this transmission, please notify the sender.

**CROMER UNIT NO. 1**  
**UNIT AGREEMENT**

UNIT AGREEMENT  
CROMER UNIT NO. 1

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## UNIT AGREEMENT

## CROMER UNIT NO. 1

WHEREAS the Parties own Royalty Interests and Working Interests, or either of them, in the Unitized Zone;

AND WHEREAS the Parties desire that the Unitized Zone be developed, produced and operated as a Unit, as hereinafter provided;

NOW THEREFORE in consideration of the covenants herein contained, the Parties agree as follows:

## ARTICLE I: DEFINITIONS

101. Definitions

In this agreement:

- (a) "Effective Date" means the time and date referred to in Article XIV;
- (b) "Lease" means an instrument granting a Working Interest in any lands in the Unit Area;
- (c) "Outside Substances" means any substances initially obtained from any source other than the Unitized Zone or any Unitized Substances with respect to which royalty has been paid;
- (d) "Party" means a person who is bound by this Agreement;
- (e) "Petroleum Branch" means the Department of Energy and Mines, Petroleum Branch established under The Oil and Gas Act;
- (f) "Petroleum Substances" means petroleum, natural gas and related hydrocarbons (except coal) and all substances whether gaseous, liquid or solid, which are produced in association therewith, or any of them;
- (g) "Royalty Interest" means
  - i) an ownership, fee simple, or similar estate in Petroleum Substances in the Unitized Zone, or
  - ii) a right to a share of Petroleum Substances produced from the Unitized Zone, to a share of the proceeds from the sale of such Petroleum Substances, or to a payment based on the quantity or value of such Petroleum Substances, but does not include a Working Interest, the interest of a purchaser or such Petroleum Substances after production, or a mortgage, charge or like interest granted as security in a financial transaction;
- (h) "Royalty Owner" means a Party owning a Royalty Interest in or in respect of Unitized Substances;
- (i) "Spacing Unit" means the area allocated to a well by the Petroleum Branch with respect to the Unitized Zone for the purpose of drilling for or producing Petroleum Substances;
- (j) "Tract" means a parcel of land described and given a Tract number in Exhibit "A" and shown outlined on Exhibit "B";
- (k) "Tract Participation" means the Participation percentage allocated to a Tract pursuant to Article VI and set forth in Exhibit "A";
- (l) "Unit Area" means the lands described in Exhibit "A" and shown outlined on Exhibit "B";
- (m) "Unit Operations" means any operations or activities undertaken in connection with the Unitized Zone, the production or handling of Unitized Substances or the installation, operation, maintenance or removal of equipment or facilities, insofar as such operations or activities have been authorized or provided for under this agreement or the Unit Operating Agreement;
- (n) "Unit Operator" means the person who is so designated under the Unit Operating Agreement;
- (o) "Unit Operating Agreement" means the agreement entitled "Unit Operating Agreement - Cromer Unit No. 1" entered into by the Working Interest Owners;
- (p) "Unitized Zone" means the Bakken Formation of the Mississippian Age underlying the lands within the Unit Area as same is shown on the compensated neutron litho-density log of the Tundra Daly 11-14-9-28 WPM well in 11-14-9-28 WPM, in the Province of Manitoba between the intervals of 841.0

metres and 843.0 metres as measured from the kelly bushing at 11-14-9-28 WPM and shown on Exhibit "C";

- (q) "Unitized Substances" means Petroleum Substances in or obtained from the Unitized Zone;
- (r) "Working Interest" means any interest which entitles the owner thereof to produce and dispose of, or to participate in the production and disposition of, Petroleum Substances from the Unitized Zone, and with which is associated a responsibility to bear all or a portion of the costs of recovering such Petroleum Substances;
- (s) "Working Interest Owner" means a party owning a Working Interest in or in respect of Unitized Substances;
- (t) "Minister" means the member of the Executive Council charged by the Lieutenant Governor in Council with the administration of The Oil and Gas Act of Manitoba.

## ARTICLE II: EXHIBITS

### 201. Exhibits

The following exhibits are attached to and incorporated in this agreement:

- (a) Exhibit "A" which numbers and describes each Tract and sets forth its Tract Participation, the names of the Working Interest Owners and their respective shares of the Working Interest, together with the names of the Royalty Owners and their respective shares of the Royalty Interest;
- (b) Exhibit "B" which is a plan of the Unit Area identifying the Tracts;
- (c) Exhibit "C" which is a reproduction of a portion of the compensated neutron litho-density log referred to in Subclause 101(p) hereof.

### 202. Exhibits Correct

Each exhibit shall be deemed conclusively to be correct to the effective time of a revision or correction thereof as herein provided.

### 203. Correction of Exhibits

If any mistake or mechanical error occurs in an exhibit, Unit Operator may, or upon request of the Working Interest Owners shall, prepare a corrected exhibit but the data used in establishing Tract Participation shall not be re-evaluated.

### 204. Effective Time

Any corrected exhibit prepared on or before the Effective Date or within ninety (90) days thereafter shall be effective on the Effective Date. Any corrected exhibit prepared after the said ninety (90) days shall be effective at 8:00 a.m. on the first day of the calendar month next following its preparation or on such other date as is determined by the Working Interest Owners.

### 205. Supplying of Exhibits

Each time that an exhibit is revised or corrected pursuant to this agreement, Unit Operator shall supply the Petroleum Branch with two copies and shall supply each Working Interest Owner with the number of copies of the exhibit it requests. Each Working Interest Owner shall supply each of its Royalty Owners, excepting the Crown, with a copy thereof.

### 206. Form of Revised or Corrected Exhibits

Exhibits that are revised or corrected shall show the effective time of the revision or correction and shall be numbered consecutively.

**ARTICLE III: UNITIZATION AND EFFECT****301. Unitization**

On and after the Effective Date the interests of each Royalty Owner and of each Working Interest Owner in the Unitized Substances and in the Unitized Zone are hereby unitized, in accordance with the provisions of this agreement.

**302. Personal Property Excepted**

All lease and well equipment heretofore or hereafter placed by any of the Working Interest Owners on lands comprised in the Unit Area shall be deemed conclusively to be and shall remain personal property belonging to and may be removed by the Working Interest Owners. The Working Interest Owners' rights and interests therein are set forth in the Unit Operating Agreement.

**303. Continuation of Leases**

All Unit Operations and all production of Unitized Substances shall, except for the purpose of calculating payments to Royalty Owners, be deemed conclusively to be operations upon or production from all of the Unitized Zone in each Tract, and such operations or production shall continue in force and effect each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances as if such operations had been conducted on, or a well had been drilled and was producing from each Tract or Spacing Unit, or portion thereof, in the Unit Area.

If from time to time during the term of this Agreement the production of Unitized Substances and the conduct of other Unit Operations is temporarily interrupted or suspended:

- (a) for any period not exceeding ninety (90) consecutive days or
- (b) for any period during which an event of force majeure contemplated by Clause 1305 is in effect,

then, for the purposes of this Clause 303, Unitized Substances shall be deemed to have been produced throughout any such period.

**304. Leases Amended**

Each Lease and any other agreement or instrument relating to the Unitized Zone or Unitized Substances is hereby amended only to the extent necessary to make it conform to this agreement.

**305. Ratification of Leases**

Except for a Lease in respect of which a royalty Owner is involved in a court action which has been commenced and is pending on the Effective Date, each Royalty Owner hereby ratifies each Lease, as amended by this agreement, to which it is a party, and hereby confirms that no notice of default has been given and remains outstanding with respect to any such Lease, and that each Lease is in effect as of the Effective Date. The provisions of this Clause 305 do not constitute a waiver, and shall not give rise to an estoppel, of any right to pursue the enforcement of any outstanding obligation under any such Lease.

**306. Effect of Unitization on Titles**

Nothing in this agreement, nor the Unit Operating Agreement shall be construed as a transfer or exchange of any interest in the Leases, Tracts or Unitized Zone, or in the Unitized Substances before production thereof.

**307. Name**

The name of the Unit hereby constituted is "Cromer Unit No. 1".

**308. Equipment and Facilities**

All equipment and facilities used in connection with the Unit Operations and heretofore or hereafter installed, affixed or constructed by any of the Working Interest Owners on or in lands within the Unit Area are and shall remain the personal property of the Working Interest Owners, or such of them as may from time to time have an interest therein, and, except as otherwise provided in Clause 1503, no interest in any such equipment and facilities shall vest in the royalty Owners by virtue of the provisions of this Agreement.

**ARTICLE IV: AUTHORITY TO WORKING INTEREST OWNERS****401. Operations**

The Working Interest Owners are hereby granted the right to develop and operate the Unitized Zone without regard to the provisions of the Leases or the boundary lines of the Tract or Spacing Units in such manner and by such means and methods as the Working Interest Owners consider appropriate. Without limiting the generality of the foregoing, the Working Interest Owners shall have the right to inject any substance or combination of substances into the Unitized Zone and to convert and use as injection wells any wells now existing or hereafter drilled into the Unitized Zone.

**402. Delegation**

The Working Interest Owners may delegate to Unit Operator any of the rights and powers herein or otherwise granted to them.

**403. Vote of Working Interest Owners**

Any matter to be determined under this agreement by the Working Interest Owners may be determined by vote of the parties to the Unit Operating Agreement as prescribed therein.

**ARTICLE V: INCLUSION AND QUALIFICATION OF TRACTS****501. Tracts Included on Effective Date**

The Tracts included in the Unit Area as of the Effective Date are those Tracts which are qualified under Clause 502:

- (a) before the Effective Date; or
- (b) on or within ninety (90) days after the Effective Date.

**502. Qualification of Tracts**

A Tract is qualified for inclusion in the Unit Area when its title has been approved by the Working Interest Owners under Clause 1102 and when:

- (a) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of one hundred percent (100%) of the Royalty Interest therein have become Parties; or
- (b) owners of one hundred percent (100%) of the Working Interests therein have become Parties and parties to the Unit Operating Agreement and owners of less than one hundred percent (100%) of the Royalty Interest therein have become Parties, and such owners of Working Interests agree, if required by the other Working Interest Owners, to indemnify the other Working Interest Owners in a form and manner satisfactory to them for any loss or damages that may be suffered by such other Working Interest Owners in respect of claims and demands that, because of the inclusion of the Tract in the Unit Area, may be made by those owners of Royalty Interests in the Tract who have not become Parties; or
- (c) owners of the Working Interests therein have agreed with the owners of Working Interests then Parties and parties to the Operating Agreement as to the basis on which the Tract shall become qualified, where the Tract cannot be qualified pursuant to Subclause (a) or (b) of this Clause.

**503. Revision of Exhibits**

Within one hundred twenty (120) days after the Effective Date the exhibits shall be revised, if necessary, to set out only those Tracts included in the Unit Area under this Article. The revised Exhibit "A" shall set forth the Tract Participation of the Tracts recalculated on the same basis and using the same data as that used in the calculation of Tract Participation in the original Exhibit "A" and so that their summation is one hundred percent (100%). The exhibits as so revised shall be effective as of the Effective Date.



**ARTICLE VI: TRACT PARTICIPATION****601. Tract Participation**

Each Tract has the Tract Participation ascribed to it in Exhibit "A".

**ARTICLE VII: ALLOCATION OF UNITIZED SUBSTANCES PRODUCED****701. Allocation to Tracts**

Subject to Clauses 801 and 802 the Unitized Substances when produced shall be allocated to the Tracts in accordance with their Tract Participation. The amount of Unitized Substances allocated to each Tract, and only that amount, regardless of whether it be more or less than the amount of actual production of Unitized Substances from the well or wells, if any, on the Tract, shall be deemed conclusively to have been produced from the Tract.

**702. Allocation Among Parties**

The Unitized Substances allocated to a Tract shall be further allocated among the Working Interest Owners thereof in accordance with their respective percentage Working Interests in the Tract as set forth in Exhibit "A", and the Working Interest Owners of each Tract shall account to the Royalty Owners of such Tract for any royalty payable or deliverable to such Royalty Owners in respect of the Unitized Substances allocated to such Tract.

**703. Calculation of Royalty**

The Working Interest Owners of each Tract shall calculate royalty on the Unitized Substances allocated to the Tract at the applicable rate under the Lease, other agreement or instrument relating to the Tract. The Royalty Owners of each Tract agree to accept payment of royalty so calculated in satisfaction of the obligation of a Working Interest Owner to make royalty payments on Unitized Substances under the Lease, agreement or other instrument covering such Tract; but a lessee under a Lease shall not be relieved from making payment of royalty to its lessor if payment is not made by the Working Interest Owner as aforesaid. In calculating royalty on residue gas, sulphur and fluid hydrocarbons, or any of them, obtained by processing Unitized Substances, other than crude oil, by compression, absorption or other plant extraction or stabilization, proper allowances shall be made for costs, expenses and charges, including a reasonable return on investment, incurred in or attributable to gathering and processing the Unitized Substances.

**704. Taking Unitized Substances in Kind**

The Unitized Substances allocated to a Tract shall be delivered in kind at the time and place of production to the Working Interest Owners entitled thereto who may, if there is no interference with Unit Operations by them, construct, maintain and operate in the Unit Area all necessary facilities for taking delivery in kind.

**705. Failure to Take in Kind**

To the extent that a Party entitled to take in kind any of the Unitized Substances fails to take or otherwise dispose of them at the time and place of production, then so long as such failure continues, Unit Operator, as agent and for the account and at the expense of such Party may sell, store, inject or otherwise dispose of them. Where there is a sale the "net proceeds" remaining from the sale shall be paid to the Party. Unit Operator may contract for the sale thereof only for the minimum term obtainable which in no event shall exceed one (1) year. When Unit Operator has so contracted, the Party may take its share of the Unitized Substances in kind upon the expiration of the current sales contract. The "net proceeds" for the purpose of this Clause shall mean the proceeds from the sale of the non-taking Party's share of production, less all direct costs of the sale, including processing and shipping costs.

**706. Royalty on Outside Substances**

If an Outside Substance is injected into the Unitized Zone, the first like substance contained in the Unitized Substances subsequently produced and sold or used other than for operations hereunder shall be deemed conclusively to be that Outside Substance until a quantity equal to the quantity of the Outside Substance injected into the Unitized Zone is recovered. No royalty shall be payable on any substance which is deemed conclusively to be an Outside Substance.

**707. Several Royalty Liability**

Without limiting the generality of the provisions of Clauses 702 and 1304, nothing in this Agreement shall be construed as giving rise to any right entitling the Royalty Owners of a Tract to look to any Working Interest Owners other than the Working Interest Owners of such Tract for the satisfaction of royalty obligations in respect of such Tract; provided, however, that in the event that the Working Interest Owners of a Tract are not the same persons as the lessee under a Lease relating to the Tract, the provisions of this Clause 707 shall not be construed as relieving such lessee of any obligation to account for royalty payable or deliverable to the lessor under such Lease if the Working Interest Owners fail to comply with their obligations in that respect.

**ARTICLE VIII: USE, LOSS AND RE-INJECTION OF UNITIZED SUBSTANCES****801. Use or Loss**

The Working Interest Owners may use as much of the Unitized Substances, other than crude oil, as they deem necessary for Unit Operations. Unitized Substances so used or injected and Unitized Substances lost shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof.

**802. Re-Injection**

The Working Interest Owners are hereby granted the right to re-inject Unitized Substances into the Unitized Zone for any purpose related to the Unit Operations. Unitized Substances so injected shall be excluded in allocating Unitized Substances to Tracts, and no royalty or other payment shall be payable in respect thereof until they are recovered for sale or for use other than for Unit Operations.

**ARTICLE IX: ENLARGEMENT OF UNIT AREA****901. Enlargement**

After the expiration of ninety (90) days following the Effective Date, if an owner of a Working Interest in lands adjoining the Unit Area makes application to enlarge the Unit Area to include such adjoining lands which appear to be potentially productive of Petroleum Substances from the Unitized Zone the Working Interest Owners may approve the enlargement of the Unit Area to include such adjoining lands on such terms and conditions as the Working Interest Owners may consider appropriate, and, if such adjoining lands qualify for inclusion in the Unit Area under Clause 502, the Unit Area shall be enlarged to include such adjoining lands. Notwithstanding that any owner of a Working Interest or a Royalty Interest in such adjoining lands is already a Party, such owner shall not, for the purposes of the qualification of such adjoining lands under Clause 502, be considered to have executed and delivered this agreement until it executes and delivers to the Unit Operator an additional counterpart of this agreement incorporating exhibits which reflect the proposed enlargement and which are stated to be effective as of the effective date of such enlargement.

**902. Adjustment of Tract Participation**

The Tract Participation of each Tract added pursuant to Clause 901 shall be determined by the Working Interest Owners. The Tract Participation shall then be adjusted in order that:

- (a) the ratios of the Tract Participation of Tracts shown on Exhibit "A" immediately prior to the enlargement remain the same to each other; and
- (b) the total of the Tract Participation for all Tracts of the enlarged Unit Area and Unitized Zone is one hundred percent (100%).

**903. Exhibits**

Unit Operator shall revise Exhibits "A" and "B" as required by the enlargement.

904. Effective Time of Enlargement

An enlargement pursuant to Clause 901 and an adjustment of Tract Participation under this Article shall become effective at 8:00 a.m. on the first day of the first calendar month following approval of admission under Clause 901, Tract qualification under Clause 502 and the date the Unit Agreement is registered by the Petroleum Branch. ✓

905. No Retroactive Adjustment

There shall never be any retroactive adjustment of the allocation of Unitized Substances by reason of an enlargement under this Article.

906. Possible Additional Tract

A possible additional tract comprising of LSD's 7-14/8-14-28 WPM has been identified. While development has not proceeded due to economic factors, the possibility exists that this tract will be developed prior to the expiry of current lease for this tract. Notwithstanding the other Clauses of Article IX, should this well be drilled, the following methodology will be used to redetermine the Unit Tract Factors: - Tract Participation ✓

- (a) Six (6) months of production will be required from tract 7-14/8-14 with the last 90 operating days used in the Tract Participation redetermination. ✓
- (b) Similarly, the production during the last 90 days, referenced to the same time period as tract 7-14/8-14, will be used in the redetermination of Tract Participation in the unitized wells. ✓
- (c) The Tract Participation assigned to the 7-14/8-14 tract will be calculated on the basis of the production (refer to (a)) from the 7-14/8-14 tract as a percentage of the total Unit production during the same time period (last 90 operating days). ✓
- (d) The Tract Participation of the remaining Tracts in the Unit will be adjusted in proportion to their percentage in the Unit prior to the development of tract 7-14/8-14, to reflect the change in tract 7-14/8-14. ✓

*a well be drilled on the tract*  
*(e) the conditions of clause 902, will apply to the addition of the 7-14/8-14 tract*  
*1904*

ARTICLE X: DISPUTES

1001. Disputes

If the title or right of a Party to receive in kind all or any portion of the Unitized Substances allocated to a Tract, or any share of the proceeds from the sale thereof, is in dispute, the Party concerned shall forthwith give notice thereof to Unit Operator. If Unit Operator is so notified or if Unit Operator is directed to do so by the Working Interest Owners in the event that it is otherwise informed of the dispute, Unit Operator shall withhold and sell the portion of the Unitized Substances the title or right to which is in dispute, and hold in trust the proceeds from the sale thereof until:

- (a) the Party concerned furnishes security in a form and manner satisfactory to the Working Interest Owners for the proper accounting thereof to the rightful owner or owners if the title or right of the Party shall fail in whole or in part, whereupon the proceeds shall be paid to the party; or
- (b) the title or right thereto is established by a final judgment of a Court or otherwise to the satisfaction of the Working Interest Owners, whereupon such proceeds shall be paid to the person rightfully entitled.

If Unit Operator does not comply with this Clause because it is not notified of a dispute by a Party concerned, that Party hereby agrees to indemnify and save harmless Unit Operator from any loss or damage suffered because of anything done or omitted to be done by Unit Operator because it was not notified.

ARTICLE XI: APPROVAL OF TITLES

1101. Titles Committee

The Working Interest Owners shall appoint a Titles Committee which shall investigate the ownership of all Tracts. Each Working Interest Owner shall submit to the Title Committee such title data and information as the titles Committee may reasonably require from time to time. The Titles Committee shall report the result of its investigation to the Working Interest Owners specifying the titles to Tracts which it unanimously recommends for approval.

**1102. Approval of Titles by Working Interest Owners**

The Working Interest Owners may approve:

- (a) the titles of Working Interest Owners to Tracts which have been unanimously recommended for approval by the Titles Committee; and
- (b) the titles of Working Interest Owners to Tracts which have not been unanimously recommended for approval by the Titles Committee but with respect to which such Working Interest Owners have agreed to indemnify the other Working Interest Owners, in a form and manner satisfactory to them, from loss or damage that may be suffered by them in respect of claims and demands made because of subsequent failure of the Working Interest Owners' title.

Notwithstanding the foregoing, the Working Interest Owners may approve any title that has not been unanimously recommended for approval by the Titles Committee.

**1103. Subsequent Failure of Title**

If the title of a Working Interest Owner to a Tract fails, the Tract shall be excluded from this agreement and the Unit Operating Agreement as of 8:00 a.m. on the first day of the calendar month in which the failure of title is finally determined unless:

- (a) any other Party is held or declared to own the title in which event that Party shall be bound by this agreement and the Unit Operating Agreement in respect of the Tract; or
- (b) by the last day of the next following calendar month the Tract qualifies for inclusion in the Unit Area pursuant to Clause 502.

**1104. Revision of Exhibits**

Unit Operator shall revise the exhibits to reflect any change in ownership in or exclusion from this agreement of a Tract pursuant to Clause 1103. Where a Tract is excluded, the Tract Participation of the other Tracts shall each be increased, without changing their ratios to each other, so that their summation is one hundred percent (100%). The revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month in which the failure of title referred to in Clause 1103 is finally determined.

## ARTICLE XII: TRANSFER OF INTEREST

**1201. Disposition**

In this Clause "disposition" means a sale, assignment, transfer, lease, sublease, conveyance, parting with possession, or any transaction of a similar nature, whether by trust or otherwise. A disposition of an interest owned by a Party in a Tract shall cover the whole or an undivided interest in the Party's interest in such Tract. A disposition shall not be binding on Unit Operator until the acquiring parties who are not Parties have executed and delivered to Unit Operator counterparts of this agreement, and at least one of the parties thereto has given notice thereof to the Unit Operator. Unit Operator shall revise the exhibits to reflect each disposition of an interest in a Tract and the revised exhibits shall be effective as of 8:00 a.m. on the first day of the calendar month next following the calendar month in which the notice is received by Unit Operator.

**1202. Multiple Disposition Not to Increase Costs**

If any disposition of an interest by a Party in a Tract should be made to multiple parties so that the expense or duties of Unit Operator are thereby increased, the Unit Operator may require the assignee parties (and Party if it retains an interest) to appoint one of their number as representing all of them for the purpose of this agreement, unless arrangements satisfactory to the Unit Operator are made to compensate the Unit Operator for the increased expenses or duties.

**ARTICLE XIII: IN GENERAL****1301. Execution in Counterpart**

This agreement may be executed in separate counterparts and all the executed counterparts together shall constitute one agreement. Execution of this agreement by the Minister shall be on behalf of the Crown only as owner of Royalty Interest.

**1302. Dual Capacity**

If a Party owns a Working Interest and a Royalty Interest, its execution of this agreement shall constitute execution in both capacities.

**1303. Subsequent Execution**

An owner of an interest in a Tract who has not become a Party as of the date the Tract was included in the Unit Area under Article V or IX, may become a Party with respect to that interest only on such terms and conditions as may be prescribed by the Working Interest Owners.

**1304. No Partnership**

The duties and obligations of the Parties shall be separate and not joint or collective. Nothing contained in this agreement shall be construed to create a partnership or association.

**1305. Force Majeure**

Neither Unit Operator nor any Party shall be deemed to be in default with respect to non-performance including delay or failure to partially perform any or all of its obligations hereunder, other than financial, if and so long as its non-performance is due, in whole or in part, to any cause beyond its reasonable control, but lack of funds shall not be a cause beyond a Party's reasonable control. The performance of such obligations shall begin or be resumed within a reasonable time after such cause has been removed. Neither this agreement nor any Lease or any other agreement or instrument relating to the Unitized Zone or Unitized Substances shall terminate by reason of suspension of Unit Operations for the cause set forth in this Clause.

**1306. Taxes**

Each Party shall be separately liable to the extent of its ownership for all taxes on Unitized Substances and with respect to the production or sale of Unitized Substances. A Working Interest Owner may, at any time and from time to time, pay said taxes on behalf of its Royalty Owner and deduct the amount of the payment from the Royalty Owner's royalty. Those taxes with respect to the production or sale of Unitized Substances shall be adjusted so that they are borne as if the basis of taxation was the allocation of Unitized Substances hereunder.

**1307. Right of Redemption**

A Working Interest Owner may, at any time and from time to time, with full rights of subrogation, redeem for its Royalty Owner any agreement for sale, mortgage, or other lien or encumbrance of any kind or nature affecting any interest in the Unit Area in the event of default of payment by the Royalty Owner and deduct the amount of any payment made hereunder from the Royalty Owner's royalty.

**1308. Interpretation**

The Clause Headings in this agreement shall not be considered in interpreting the text.

**1309. Number and Gender**

In this agreement words importing the singular include the plural and vice versa; words importing the masculine gender include the feminine and vice versa; and words importing persons include firms or corporations and vice versa.

1310. Time

In this agreement all times are "official times" as defined in The Official Time Act of the Province of Manitoba.

1311. Compliance with Legislation


The provisions of The Oil and Gas Act and regulations of Manitoba thereunder, as amended from time to time, take precedence over this agreement.

1312. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Manitoba, and each of the Parties submits to the jurisdiction of the courts of the Province of Manitoba for the interpretation and enforcement hereof.

**ARTICLE XIV: EFFECTIVE DATE**1401. Effective Date

The unitization provided for herein shall become effective at 8:00 a.m. on the first day of the first calendar month following:

- (a) the date of the qualification under Clause 502 of Tracts having a combined Tract Participation of one hundred percent (100%) as originally set out in Exhibit "A"; and
  - (b) the date the Unit Agreement is registered by the Petroleum Branch.
- 

1402. Notice of Effective Date

As soon as possible after the Effective Date Unit Operator shall notify all Working Interest Owners of the Effective Date and each of the Tracts qualified as of the Effective Date, and each Working Interest Owner shall advise each of its Royalty Owners of the Effective Date.

1403. Release of Parties

This agreement shall cease to bind the Parties if the unitization provided for herein has not become effective on or before the first day of December, 1998.

**ARTICLE XV: TERM**1501. Effect of Execution and Delivery

Subject to Clause 1403 this agreement is binding upon a person who executes and delivers a counterpart thereof to Unit Operator, and that person is bound by this agreement as of the time of such delivery. This agreement inures to the benefit of and is binding upon the heirs, executors, administrators, successors and assigns of the Parties.

1502. Termination

This agreement terminates ninety (90) calendar days after all wells for the production of Unitized Substances in the Unit Area have been abandoned, plugged or disposed of or upon the termination of the Unit Operating Agreement, and thereafter the Parties shall be governed by the terms and provisions of their Leases and other agreements or instruments relating to the Unitized Zone or Unitized Substances.

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of six (6) months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within thirty (30) calendar days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

DORIS MARIE GOULD

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*2119 Agincourt Crescent*

*Burlington, ON L7P 1P3*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1



IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

SONIA HELEN JACQUES

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

P.O. Box 1375

Virden, MB R0M 2C0

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MONTREAL TRUST COMPANY

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

600, 530 Eighth Avenue SW

Calgary, AB T2P 3S8

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MONTREAL TRUST COMPANY

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

P.O. Box 369

Winnipeg, MB R3C 2J1

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

MORRIS JOHN SENKIW

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

*General Delivery*

*Virden, MB R0M 2C0*

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

TUNDRA OIL AND GAS LTD.

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
ADDRESS FOR SERVICE:

1111 One Lombard Place

Winnipeg, MB R3B 0X4

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

HER MAJESTY THE QUEEN IN RIGHT OF  
THE PROVINCE OF MANITOBA

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
MINISTER, ENERGY AND MINES.  
\_\_\_\_\_

ADDRESS FOR SERVICE:

MANITOBA DEPARTMENT OF ENERGY AND MINES

360 - 1395 Ellice Avenue

Winnipeg, MB R3G 3P2

Execution Page forming part of the Unit Agreement - Cromer Unit No. 1

**EXHIBIT 'A': TRACT PARTICIPATION**

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

April 15, 1998

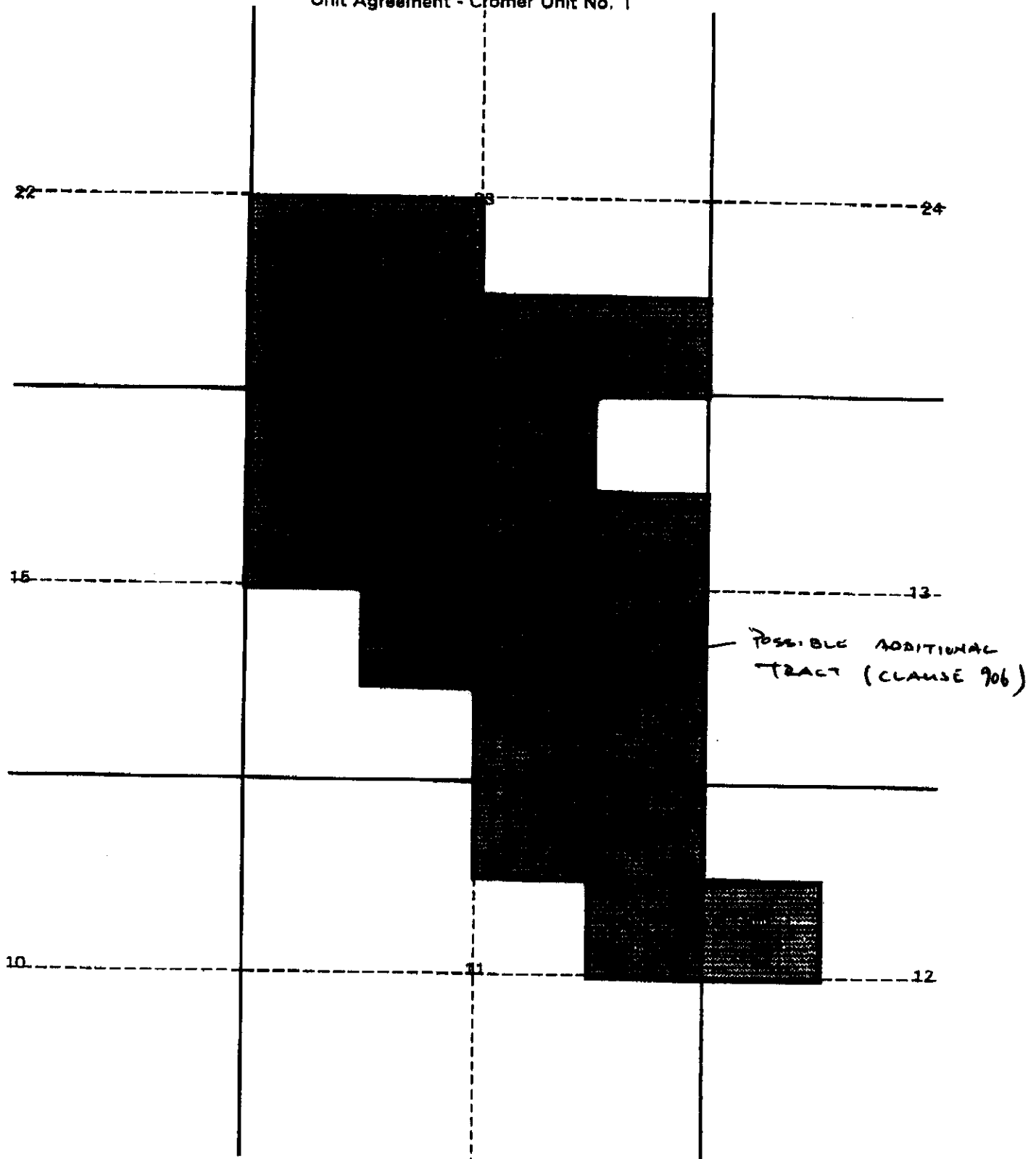
Tract No.	Land Description LSD	Working Interest		Royalty Interest		Tract Participation %
		Owner	Share (%)	Owner	Share (%)	
1	15 & 16-11-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba ✓	100.000	13.80075
2	9-11 & 12-12-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	13.87840
3	1 & 2-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	15.12404
4	8-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Montreal Trust (CGY) ✓ Montreal Trust (WPG) ✓	25.000 75.000	9.13245
5	9 & 10-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	7.12317
6	11 & 12-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	9.49514
7	13-14-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	3.37299
8	14 & 15-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Crown Province of Manitoba	100.000	11.19977
9	1 & 2-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	D.M. Gould ✓ S.H. Jacques ✓ M.J. Senkiw ✓ I.A. Yakobovich	25.000 25.000 25.000 25.000	1.58856
10	3 & 4-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd. ✓ Montreal Trust (CGY) ✓	50.000 50.000	3.09735
11	5 & 6-23-9-28 WPM	Tundra Oil and Gas Ltd.	100.000	Tundra Oil and Gas Ltd. ✓ Montreal Trust (CGY) ✓	50.000 50.000	12.38938

100 %

CROWN SHARE - 73.79 %

## EXHIBIT 'B'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1



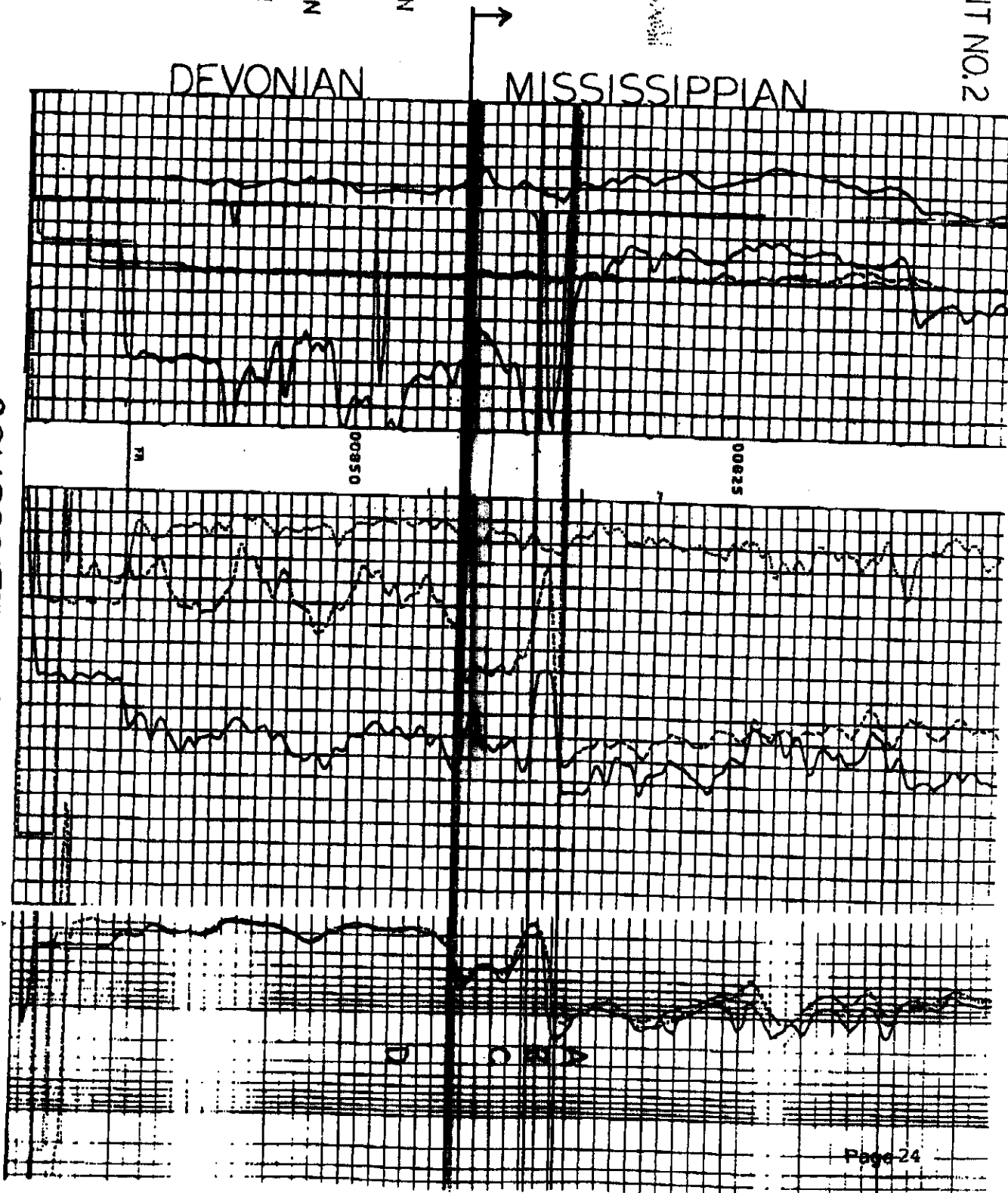
TWP 9 RGE 28 WPM



EXHIBIT 'C'

Attached to and made part of an Agreement Entitled  
Unit Agreement - Cromer Unit No. 1

LODGEPOLE FORMATION  
UPPER MEMBER BAKKEN  
MIDDLE MEMBER BAKKEN  
LYLETON FORMATION



COMPOSITE LOG

TUNDRA 11-14-09-28

INDUCTION LOG / CNL-DENSITY LOG