



Josh Hutchings
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April 30, 2025

Natalie Lippa
Sahtu Land and Water Board
P.O. Box 1
Fort Good Hope, NT
X0E 0H0

**Re: Monthly Water Use Report for March 2025
Water Licence S13L1-007, Annex A, Part D, Condition 1
Imperial Oil Resources N.W.T. Limited (Imperial)**

Dear Ms. Lippa,

Imperial is submitting this report as per Water Licence S13L1-007, Annex A, Part D, Condition 1. All water license conditions were met during the month of March.

On March 8th, some small leaking on some tubing and fittings was detected in our cooling loop chlorine injection. Due to the leak, chlorine injection was halted until repairs could be made. As chlorine injection is primarily to protect plant equipment integrity, a small lapse in chlorine injection is not considered to introduce any significant risk. Repairs are expected to be completed by early May. Due to lack of chlorine injection, chlorine residual was not measured, and therefore is not shown on the report.

If you require further information, please contact 587-962-1131 or jacklyn.b.costley@esso.ca

Sincerely,

A handwritten signature in black ink, appearing to read "Jacki Costley".

Jacki Costley
Environment and Regulatory Advisor
Imperial

cc:

M. Larose	CIRNAC
E. Nissen	CIRNAC
B. Roy	SLWB

IMPERIAL - NORMAN WELLS OPERATIONS
WATER LICENCE S13L1-007
CPF DAILY VOLUMES
March 2025

Date	VOLUMES (m ³)					TEMP (C)		CHLORINE (mg/L)
	S13L1-007-1 CPF Intake Water	S13L1-007-2 CPF Effluent Water	Fresh Water Injection	Produced Water Injection	Total Water Injection	S13L1-007-1 CPF Intake Water	S13L1-007-2 CPF Effluent Water	S13L1-007-2 CPF Effluent Water
1	5600.50	5031.50	569.00	4006.33	4575.33	2.18	7.95	0.00
2	5600.49	5081.58	518.91	4135.00	4653.92	2.18	7.89	0.00
3	5600.04	4987.76	612.28	4092.44	4704.72	2.15	8.15	0.00
4	5600.51	4995.67	604.84	4024.73	4629.57	2.44	8.13	0.00
5	5600.52	4997.41	603.11	4286.51	4889.62	2.77	8.33	0.00
6	5600.41	4835.21	765.21	4173.60	4938.81	2.97	8.42	0.00
7	5600.43	4983.42	617.01	4167.59	4784.60	2.86	7.51	0.00
8	5600.52	5039.11	561.40	4145.70	4707.10	2.47	6.68	*
9	5600.44	5075.91	524.53	4155.04	4679.57	2.30	6.21	*
10	5600.52	4901.34	699.18	3918.10	4617.28	2.47	6.41	*
11	5600.45	5018.53	581.92	4009.53	4591.45	3.12	6.41	*
12	5600.44	5021.37	579.07	4116.44	4695.51	2.29	7.10	*
13	5600.44	5021.37	579.07	4116.44	4695.51	2.29	7.10	*
14	5670.09	5069.28	600.81	4131.56	4732.37	2.23	7.00	*
15	5751.25	5158.99	592.27	4179.54	4771.81	2.32	6.47	*
16	5800.51	5212.49	588.02	4083.10	4671.12	2.33	6.20	*
17	5800.37	5193.32	607.05	3959.74	4566.79	2.27	6.27	*
18	5666.39	5056.90	609.49	4007.03	4616.53	2.53	5.71	*
19	5484.25	4905.72	578.54	4079.20	4657.74	2.21	5.04	*
20	5400.51	4804.30	596.20	4021.66	4617.86	2.80	6.86	*
21	5790.00	5226.87	563.14	3933.89	4497.02	2.16	7.68	*
22	6000.45	5456.84	543.61	3947.98	4491.59	2.06	7.77	*
23	6000.50	5457.98	542.51	3986.30	4528.81	2.65	8.16	*
24	6000.43	5479.69	520.73	3936.77	4457.51	2.23	7.36	*
25	6000.41	5466.76	533.65	3984.01	4517.66	2.09	7.13	*
26	6000.42	5429.56	570.87	3998.17	4569.04	2.79	7.18	*
27	6000.47	5413.96	586.52	4032.73	4619.24	2.13	6.86	*
28	6000.41	5473.21	527.20	3964.33	4491.53	2.42	6.98	*
29	6000.50	5456.95	543.55	3978.16	4521.71	2.21	7.21	*
30	6000.34	5473.79	526.55	3946.41	4472.96	1.97	7.39	*
31	6000.53	5467.63	532.90	3999.59	4532.49	2.09	7.37	*
TOTAL	178,174	160,194	17,979	125,518	143,497			
AVG	5,748	5,168	580	4,049	4,629	2.4	7.1	0.00
HIGH	6,001	5,480	765	4,287	4,939	3.12	8.4	0.00

*Chlorine injection down

IMPERIAL - NORMAN WELLS OPERATIONS
WATER LICENCE S13L1-007
CPF MONTHLY VOLUMES SUMMARY
March 2025

Water Injection Volumes (m³)

Total fresh water injected	17,979	
Total produced water injected	125,518	
Total Monthly	143,497	Total Injected

CPF Water Volumes (m³)

Total CPF intake water S13L1-007-01	178,174	
Total CPF effluent water S13L1-007-02	160,194	
Highest daily water intake S13L1-007-01	6,001	Max. Allow. 16,000 m ³ /day.
YTD water intake S13L1-007	518,978	Max. Allow. 3,500,000 m ³ /yr.

Alternate Water Usage Volumes (m³)

Alternate surface water usage	0
YTD Alternate surface water usage	0

Surface Runoff Water Release Volumes (m³)

Refinery Impound Basin	0
LT 11 Impound Basin	0
Refinery Water flood Basin	0
CPF Impound Basin	0
Misc. Mainland Impound Areas	0
Misc. Bear Island Impound Areas	0
Misc. Goose Island Impound Areas	0
Total - YTD Surface Runoff	0

IMPERIAL - NORMAN WELLS OPERATIONS
WATER LICENCE S13L1-007-1
QUARTERLY CPF WATER INLET DATA
March 2025

SNP S13L1-007-1 (Intake Water)					
Parameter	Q1 2025 (mg/L)	Q2 2025 (mg/L)	Q3 2025 (mg/L)	Q4 2025 (mg/L)	YTD Avg. (mg/L)
pH	6.41	-	-	-	6.4
Phenols	<0.0015	-	-	-	<0.0015
Dissolved Sodium	11.0	-	-	-	11.0
Total Sodium	9.6	-	-	-	9.6
Dissolved Potassium	1	-	-	-	1.0
Total Potassium	0.83	-	-	-	0.8
Dissolved Sulphate	33	-	-	-	33.0
Dissolved Chloride	13	-	-	-	13.0
Dissolved Calcium	32	-	-	-	32.0
Total Calcium	27	-	-	-	27.0
Dissolved Magnesium	11	-	-	-	11.0
Total Magnesium	9.1	-	-	-	9.1
Total Alkalinity	88	-	-	-	88.0
Specific Conductivity (uS/cm)	270	-	-	-	270.0
Total Suspended Solids	<1.0	-	-	-	<1.0
Total Dissolved Solids	160	-	-	-	160.0
Total Petroleum	<2.0	-	-	-	<2.0
Total Phosphorus	<.1	-	-	-	<.1
Total Hardness	130	-	-	-	130.0

IMPERIAL - NORMAN WELLS OPERATIONS
WATER LICENCE S13L1-007-2
QUARTERLY CPF WATER EFFLUENT DATA
March 2025

SNP S13L1-007-2 (Effluent Water)					
Parameter	Q1 2025 (mg/L)	Q2 2025 (mg/L)	Q3 2025 (mg/L)	Q4 2025 (mg/L)	YTD Avg. (mg/L)
pH	6.3	-	-	-	6.3
Phenols	<0.0015	-	-	-	<0.0015
Dissolved Sodium	11	-	-	-	11.0
Total Sodium	9.9	-	-	-	9.9
Dissolved Potassium	1.0	-	-	-	1.0
Total Potassium	0.85	-	-	-	0.9
Dissolved Sulphate	36	-	-	-	36.0
Dissolved Chloride	14	-	-	-	14.0
Dissolved Calcium	33	-	-	-	33.0
Total Calcium	28	-	-	-	28.0
Dissolved Magnesium	11	-	-	-	11.0
Total Magnesium	9.4	-	-	-	9.4
Total Alkalinity	90	-	-	-	90.0
Specific Conductivity (uS/cm)	270	-	-	-	270.0
Total Suspended Solids	<0.10	-	-	-	<0.10
Total Dissolved Solids	160	-	-	-	160.0
Total Petroleum	<0.20	-	-	-	<0.20
Total Phosphorus	<0.10	-	-	-	<0.10
Total Hardness	130	-	-	-	130.0

IMPERIAL - NORMAN WELLS OPERATIONS
WATER LICENCE S13L1-007-2
QUARTERLY ACUTE LETHALITY
March 2025

SNP S13L1-007-2 (Effluent Water)		
Date	Rainbow Trout (% Survival)	Daphnia Magna (% Survival)
Licence Criteria	> 50% Survival	> 50% Survival
Q1		
Q2		
Q3		
Q4		

**IMPERIAL - NORMAN WELLS OPERATIONS
WATER LICENCE S13L1-007
SURFACE WATER RUNOFF RELEASE REPORT
March 2025**

Discharge Where Contamination Suspected										
	Date	Start/ Middle/ End	Total Discharge Volume (m ³)	Total Petroleum Hydrocarbons (mg/L)	Phenols (mg/L)	Chlorides (mg/L)	pH	Suspend Solids (mg/L)	Total Dissolved Solids (mg/L)	Specific Conduct. (uS/cm)
Max Grab Sample Limit				5	0.14	<500	6.0-9.0			
Mainland Areas										
	N/A		0							
Misc. Mainland Impound Areas										
	N/A		0							

**IMPERIAL - NORMAN WELLS OPERATIONS
WATER LICENCE S13L1-007
SURFACE WATER RUNOFF RELEASE REPORT
March 2025**

Discharge Where No Contamination Suspected					
	Date	Total Discharge Volume (m ³)	Chlorides (mg/L)	pH	Sheen Y/N
Sample Limits			< 500	6.0-9.0	N
Mainland					
	N/A	0			
Bear Island					
	N/A	0			
Goose Island					
	N/A	0			