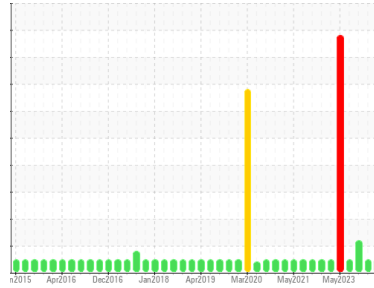


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Cranes [450255637]**  
Machine Id  
**Crane - Mid - Hydraulic System (Reservoir) (S/N Sample Tag MA-04002-S4)**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA ATF DEXRON III/MERCON (800 LTR)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

**Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC</b>	PC0076227	PC0052589
Sample Date	Client Info	<b>20 Jan 2024</b>	04 Oct 2023	12 Aug 2023
Machine Age	hrs	Client Info	<b>0</b>	0
Oil Age	hrs	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL

**CONTAMINATION**

method	limit/base	current	history1	history2
Water	WC Method >0.05	<b>NEG</b>	NEG	NEG

**WEAR METALS**

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>0</b>	0	0
Iron	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	2
Chromium	ppm ASTM D5185(m) >10	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m) >10	<b>&lt;1</b>	<1	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185(m) >10	<b>&lt;1</b>	0	<1
Lead	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	2
Copper	ppm ASTM D5185(m) >20	<b>1</b>	1	3
Tin	ppm ASTM D5185(m) >10	<b>0</b>	0	<1
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

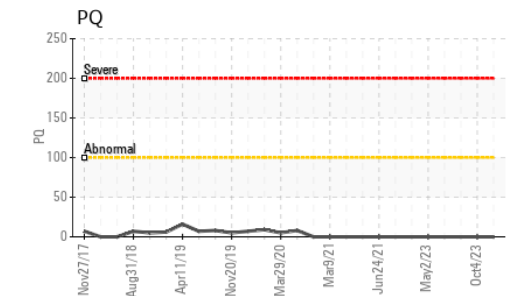
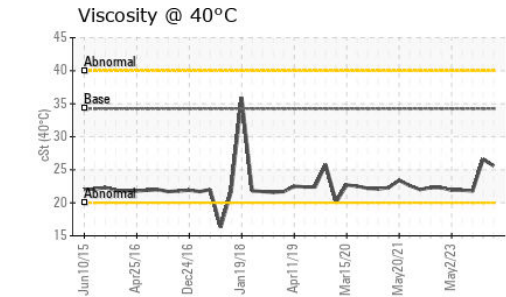
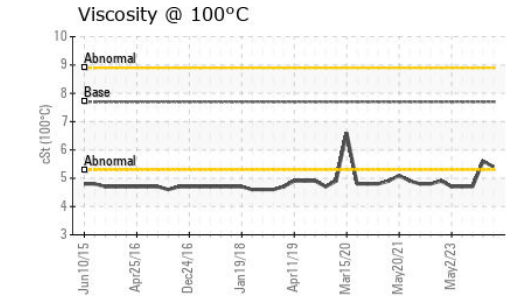
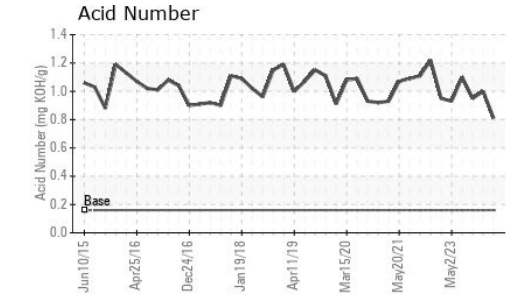
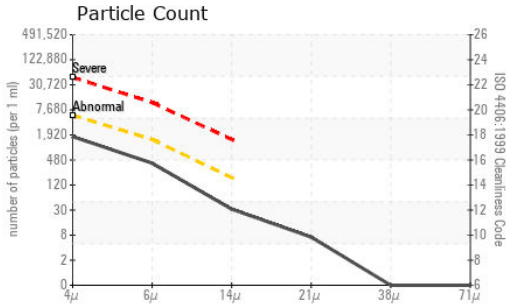
**ADDITIVES**

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 130	<b>94</b>	103	82
Barium	ppm ASTM D5185(m) 1.0	<b>2</b>	2	8
Molybdenum	ppm ASTM D5185(m) 0.0	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm ASTM D5185(m) 1.0	<b>2</b>	1	<1
Calcium	ppm ASTM D5185(m) 20	<b>66</b>	66	35
Phosphorus	ppm ASTM D5185(m) 280	<b>238</b>	239	318
Zinc	ppm ASTM D5185(m) 10	<b>46</b>	45	140
Sulfur	ppm ASTM D5185(m) 440	<b>759</b>	734	814
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

**CONTAMINANTS**

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<b>2</b>	2	2
Sodium	ppm ASTM D5185(m)	<b>1</b>	1	2
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	1

# OIL ANALYSIS REPORT



FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>1531</b>	1979	▲ 10892	
Particles >6µm	ASTM D7647	>1300	<b>354</b>	501	▲ 2456	
Particles >14µm	ASTM D7647	>160	<b>28</b>	36	126	
Particles >21µm	ASTM D7647	>40	<b>6</b>	8	26	
Particles >38µm	ASTM D7647	>10	<b>0</b>	1	0	
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>18/16/12</b>	18/16/12	▲ 21/18/14	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.16	<b>0.81</b>	1.00	0.95

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	34.26	<b>25.6</b>	26.6	21.8
Visc @ 100°C	cSt	ASTM D7279(m)	7.7	<b>5.4</b>	5.6	4.7
Viscosity Index (VI)	Scale	ASTM D2270*	210	<b>152</b>	156	138

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						
PrtFilter				no image	no image	



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC  
**Lab Number** : **02614506**  
**Unique Number** : 5723601  
**Test Package** : MAR 2 ( Additional Tests: KV100, PQ, VI )  
**Received** : 09 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Kevin Marson

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshhynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.