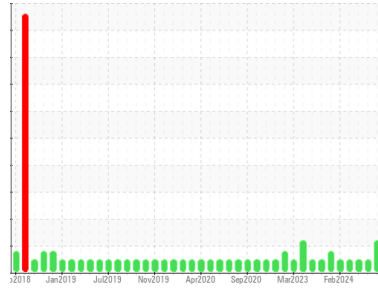


Area  
**Aft Machinery Space [450339560]**  
 Machine Id  
**Thruster Aft Port - Lubrication System (S/N Sample Tag CL-06002-S1)**  
 Component  
**Lube System**  
 Fluid  
**PETRO CANADA ENERGOL GR-XP ISO 150 (5000 LTR)**



**DIAGNOSIS**

● **Recommendation**  
 We recommend you service the filters on this component. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

**Wear**  
 Component wear rates appear to be normal (unconfirmed).

● **Contamination**  
 There is a light amount of silt (particulates < 14 microns in size) present in the oil.

● **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>PC0080187</b>	PC	PC0080963
Sample Date	Client Info			<b>21 May 2024</b>	30 Apr 2024	21 Apr 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

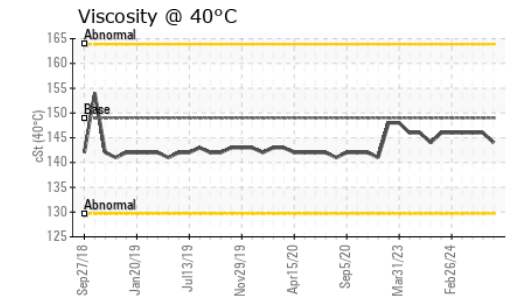
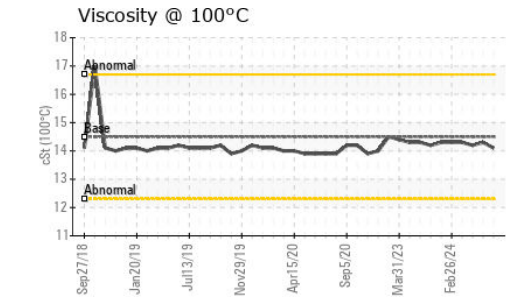
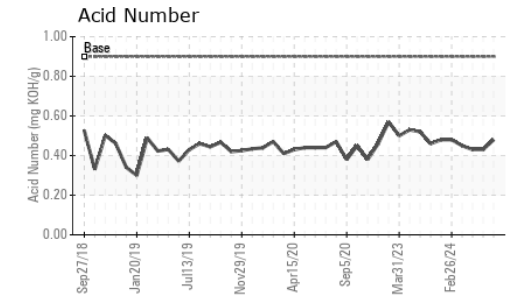
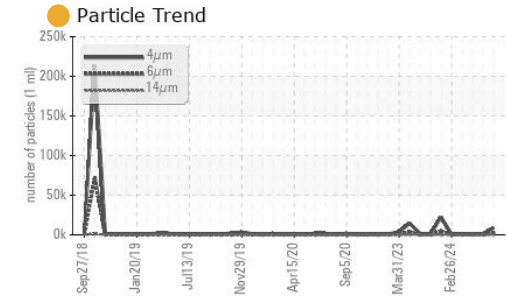
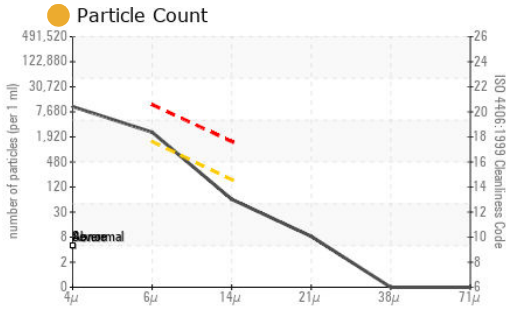
CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m)	>20	<b>4</b>	4	4
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
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)		<b>13</b>	5	5
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)		<b>&lt;1</b>	2	3
Phosphorus	ppm	ASTM D5185(m)		<b>167</b>	153	149
Zinc	ppm	ASTM D5185(m)		<b>3</b>	10	11
Sulfur	ppm	ASTM D5185(m)		● <b>7981</b>	12961	12954
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>	0	<1
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1

# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0080187  
**Lab Number** : 02640343  
**Unique Number** : 5789505  
**Test Package** : MAR 2 ( Additional Tests: KV100, PQ, TAN Man, VI )

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshynes@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.

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>8942</b>	886	269
Particles >6µm	ASTM D7647	>1300	<b>2176</b>	226	66
Particles >14µm	ASTM D7647	>160	<b>54</b>	19	10
Particles >21µm	ASTM D7647	>40	<b>7</b>	4	3
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/14	<b>20/18/13</b>	17/15/11	15/13/10

FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.9	<b>0.48</b>	0.43	0.43

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>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
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)	149	<b>144</b>	146	146
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	<b>14.1</b>	14.3	14.2
Viscosity Index (VI)	Scale	ASTM D2270*		<b>94</b>	95	94

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

