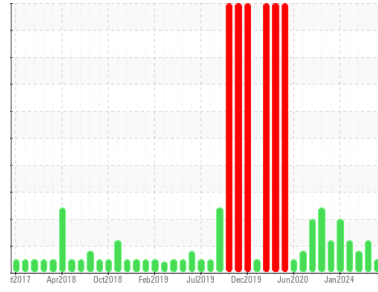


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Fwd Machinery Space [450356367]
 Machine Id
Thruster Fwd Aft - Seal Oil System (S/N Sample Tag CL-06004-S3)
 Component
Sealing System
 Fluid
PETRO CANADA ENERGOL GR-XP ISO 150 (65 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 fluid is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0080169	PC0076440	PC
Sample Date	Client Info			19 Jun 2024	21 May 2024	21 Apr 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	ATTENTION	ATTENTION

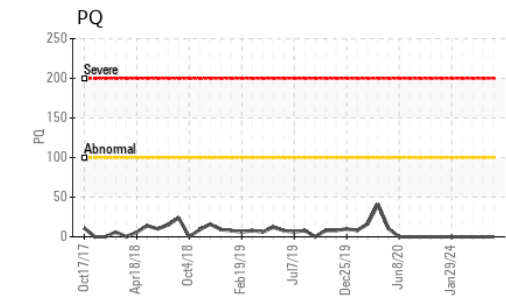
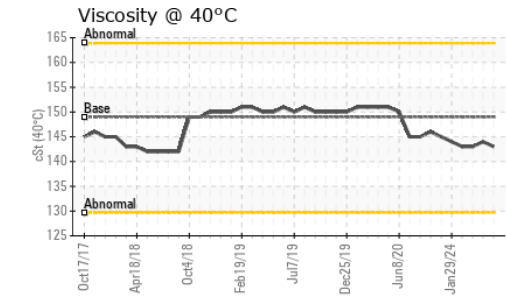
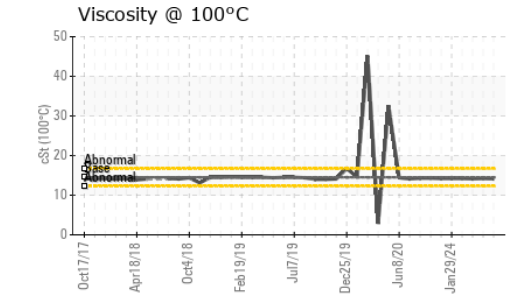
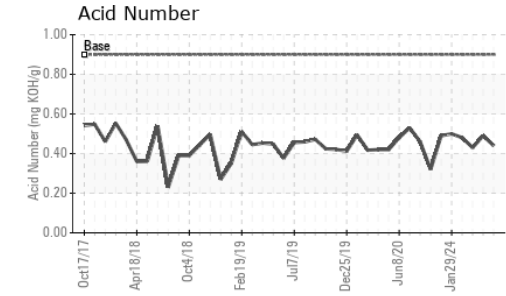
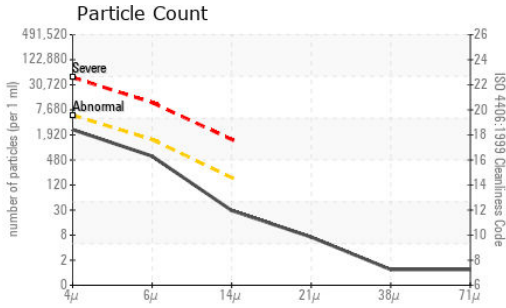
CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>100	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>3	0	0	0
Nickel	ppm	ASTM D5185(m)	>8	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>3	<1	0	0
Lead	ppm	ASTM D5185(m)		0	0	0
Copper	ppm	ASTM D5185(m)	>3	<1	0	0
Tin	ppm	ASTM D5185(m)		0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		13	16	14
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		<1	<1	<1
Calcium	ppm	ASTM D5185(m)		4	4	6
Phosphorus	ppm	ASTM D5185(m)		161	169	159
Zinc	ppm	ASTM D5185(m)		4	4	4
Sulfur	ppm	ASTM D5185(m)		7945	8021	7909
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	2	2	2
Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080169
Lab Number : 02645047
Unique Number : 5802586
Test Package : MAR 2 (Additional Tests: KV100, PQ, PrtCount, VI)
Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Kevin Marson

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	>5000	2253	● 8947	● 8655	
Particles >6µm	ASTM D7647	>1300	520	● 2017	1183	
Particles >14µm	ASTM D7647	>160	26	61	45	
Particles >21µm	ASTM D7647	>40	6	9	10	
Particles >38µm	ASTM D7647	>10	1	0	1	
Particles >71µm	ASTM D7647	>3	1	0	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	18/16/12	● 20/18/13	● 20/17/13	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.9	0.44	0.49	0.43

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	149	143	144	143
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	14.1	14.2	14.1
Viscosity Index (VI)	Scale	ASTM D2270*		95	95	95

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						