

Area
1851
Machine Id
1851-5419-8002
Component
Gearbox
Fluid
PETRO CANADA SYNDURO SHB ISO150 (15 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0070739	PC0070684	PC0070679
Sample Date		Client Info		20 Feb 2024	23 Jan 2024	26 Dec 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				NORMAL	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>200	6	6	5
Chromium	ppm	ASTM D5185(m)	>15	0	0	0
Nickel	ppm	ASTM D5185(m)	>15	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>100	0	0	0
Copper	ppm	ASTM D5185(m)	>200	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

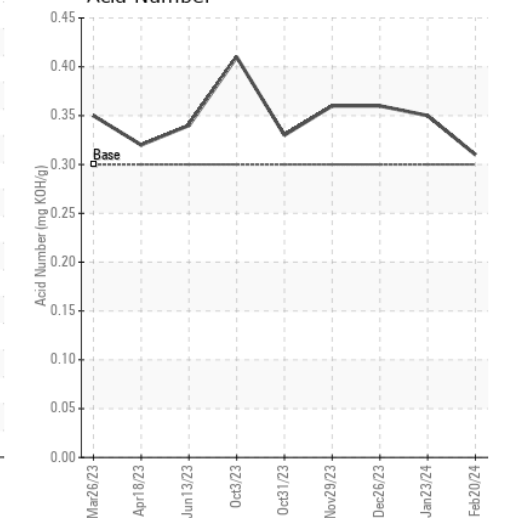
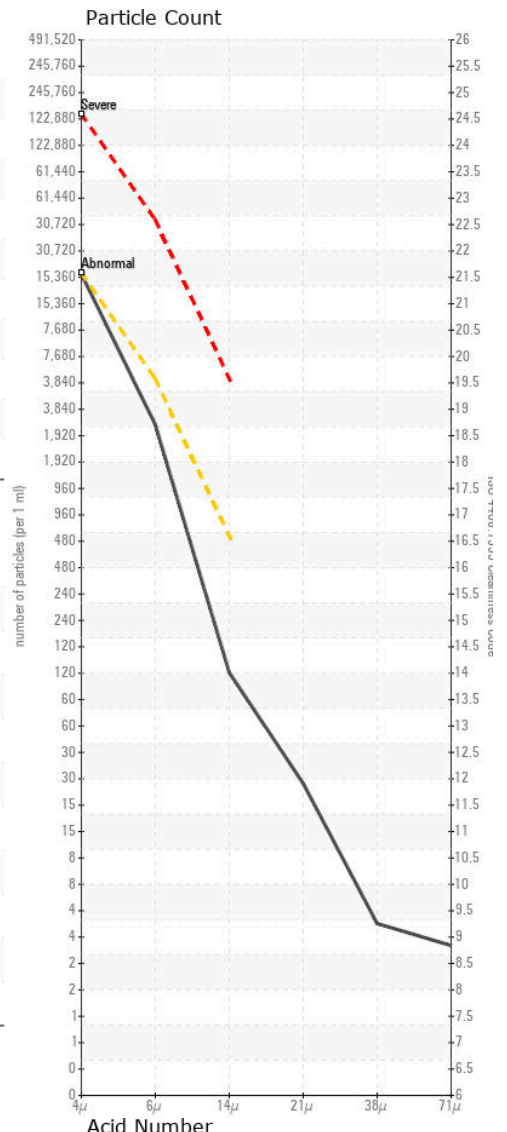
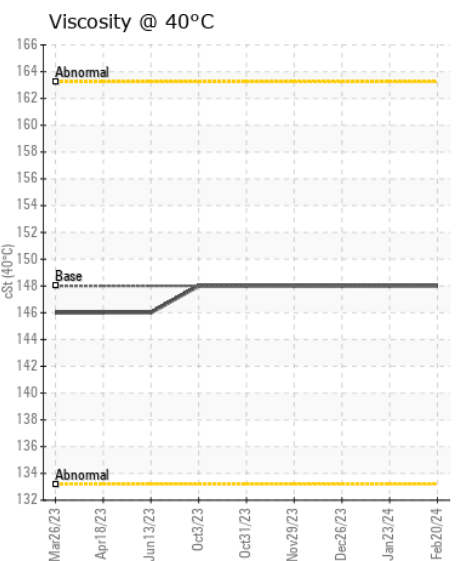
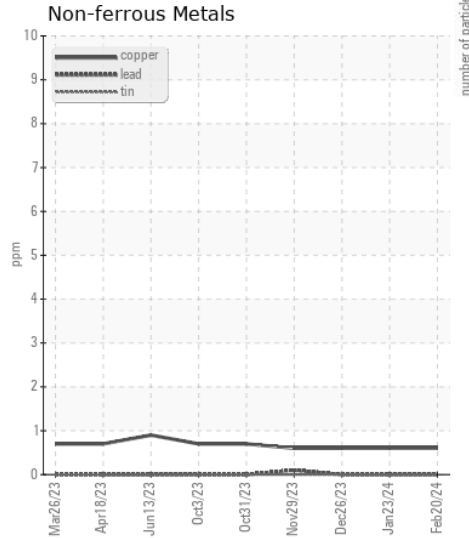
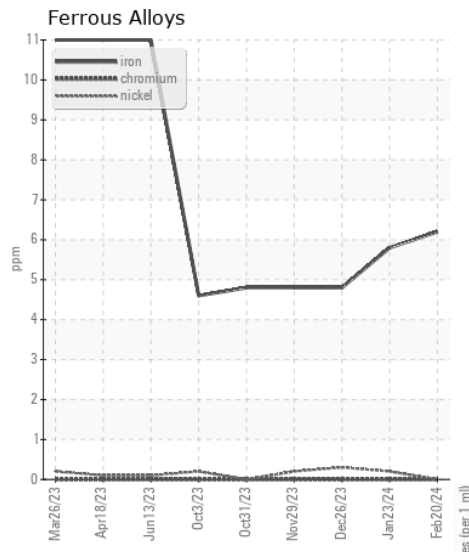
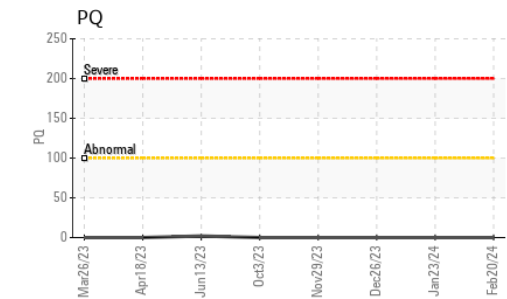
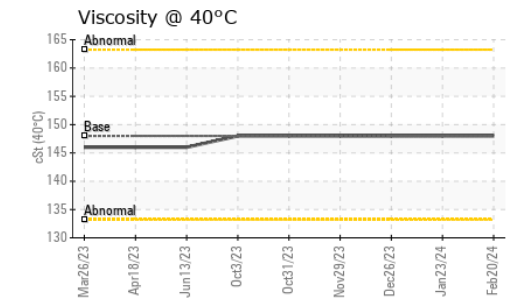
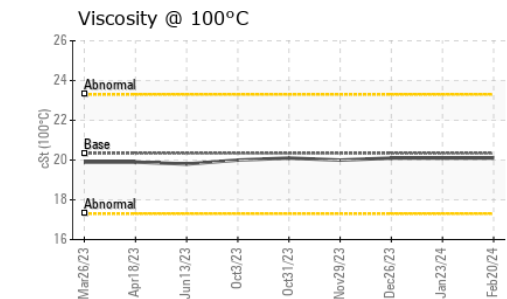
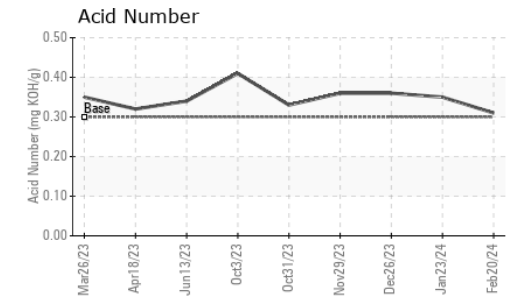
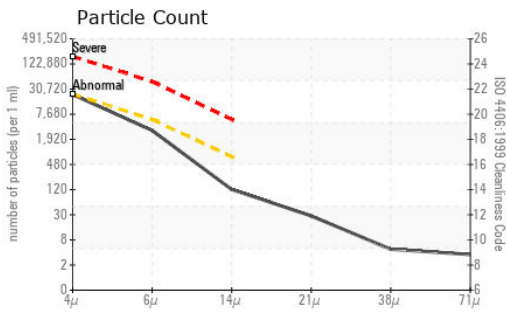
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>50	4	4	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	19716	39009	22547
Particles >6µm		ASTM D7647	>5000	2741	7315	3580
Particles >14µm		ASTM D7647	>640	107	502	186
Particles >21µm		ASTM D7647	>160	25	140	46
Particles >38µm		ASTM D7647	>40	4	17	5
Particles >71µm		ASTM D7647	>10	3	9	3
Oil Cleanliness		ISO 4406 (c)	>21/19/16	21/19/14	22/20/16	22/19/15
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	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*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<1	0	<1
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)	5.0	0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	5.0	<1	<1	0
Calcium	ppm	ASTM D5185(m)	5.0	<1	<1	<1
Phosphorus	ppm	ASTM D5185(m)	100	86	88	85
Zinc	ppm	ASTM D5185(m)	5.0	2	2	2
Sulfur	ppm	ASTM D5185(m)	1900	2000	2022	1953
Acid Number (AN)	mg KOH/g	ASTM D974*	0.3	0.31	0.35	0.36
Visc @ 40°C	cSt	ASTM D7279(m)	148	148	148	148
Visc @ 100°C	cSt	ASTM D7279(m)	20.34	20.1	20.1	20.1
Viscosity Index (VI)	Scale	ASTM D2270*	159	157	157	157



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0070739 **Received** : 06 Mar 2024
Lab Number : 02620284 **Tested** : 08 Mar 2024
Unique Number : 5737394 **Diagnosed** : 08 Mar 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: KV100, PQ, PrtCount, VI)

Vale - Voisey's Bay
 Voisey's Bay Mine Site, P.O. Box 7001, Stn. C Happy Valley
 Goose Bay, NL
 CA A0P 1C0
 Contact: Robert Feltham
 robert.feltham@vale.com

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.

T:
 F: x