



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
1420
Machine Id
1420-5671-4001 - SAG MILL TRUNNION/PINION LUBE
Component
Bulk Fluid Tank
Fluid
PETRO CANADA ENDURATEX EP 320 (1000 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0077287	PC0070746	PC0058533
Sample Date		Client Info		01 Jun 2024	31 Jan 2024	14 Nov 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	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)		4	4	4
Chromium	ppm	ASTM D5185(m)		0	0	0
Nickel	ppm	ASTM D5185(m)		0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)		0	<1	0
Lead	ppm	ASTM D5185(m)		0	<1	<1
Copper	ppm	ASTM D5185(m)		1	1	2
Tin	ppm	ASTM D5185(m)		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

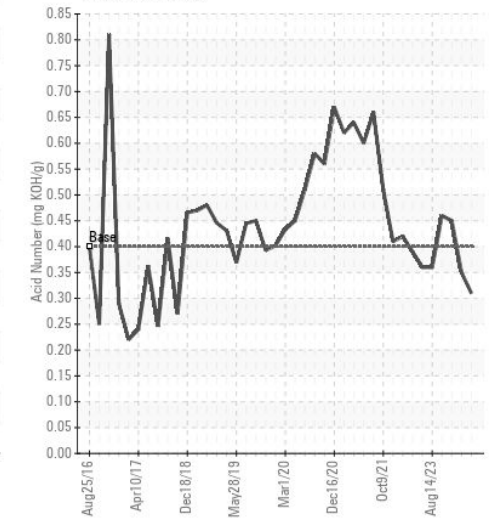
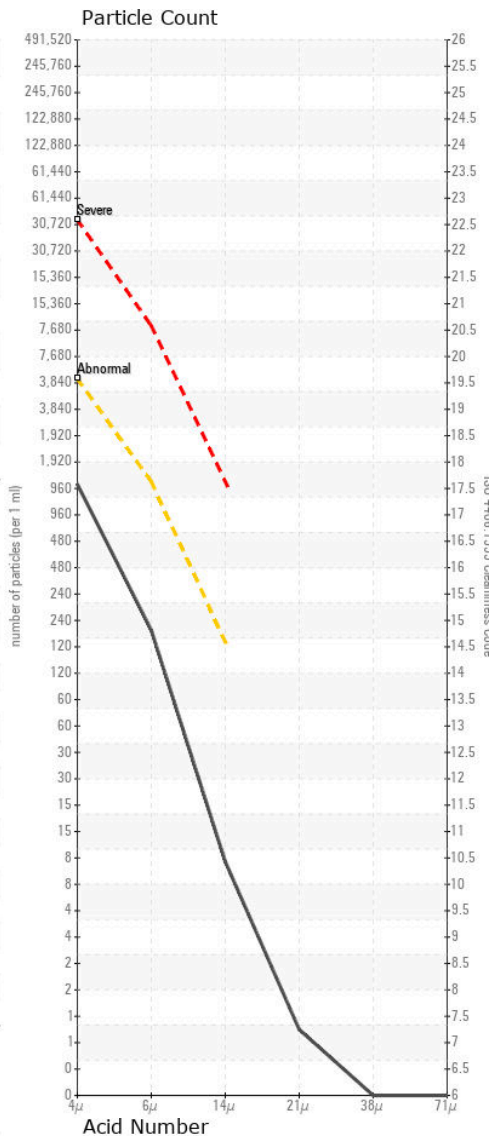
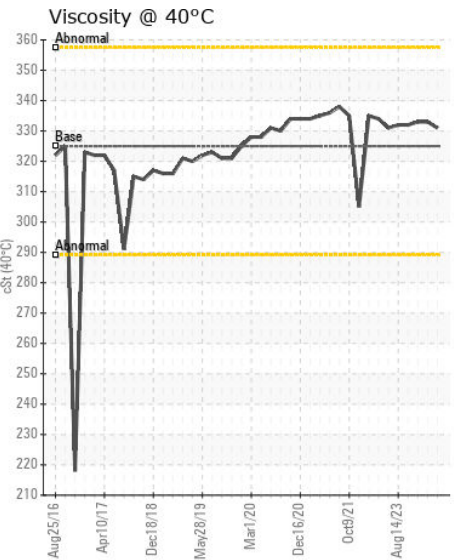
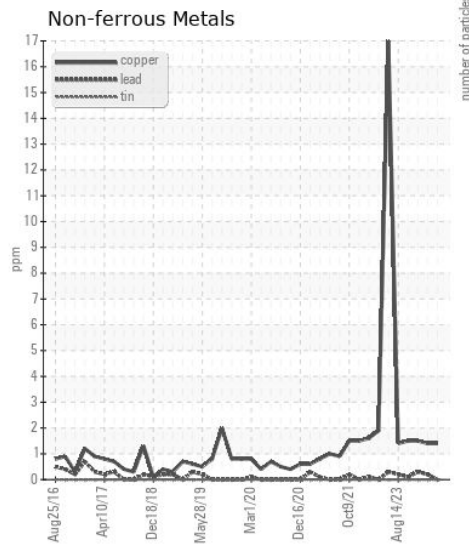
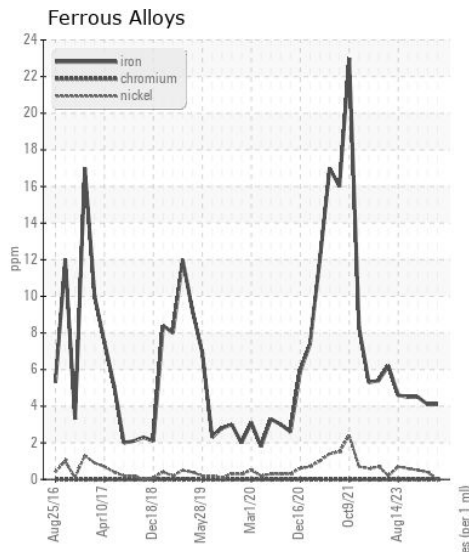
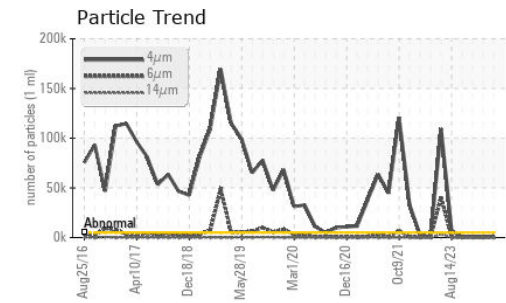
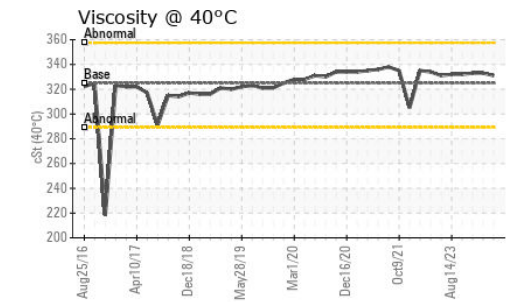
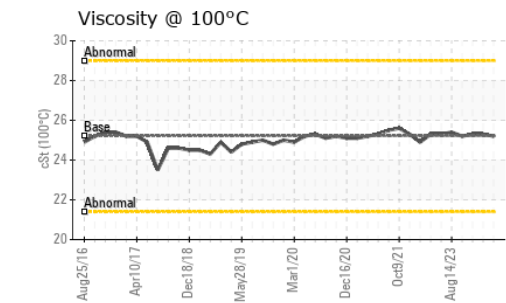
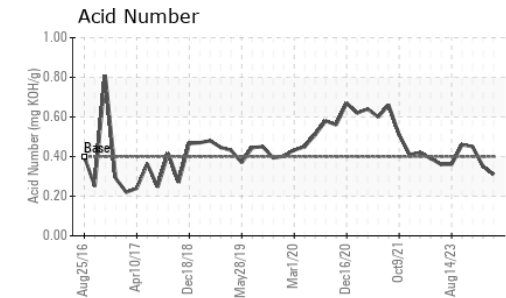
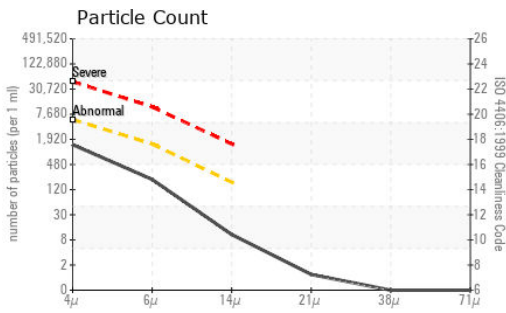
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)		1	2	1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method		NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	1255	418	1149
Particles >6µm		ASTM D7647	>1300	186	124	308
Particles >14µm		ASTM D7647	>160	9	17	24
Particles >21µm		ASTM D7647	>40	1	6	6
Particles >38µm		ASTM D7647	>10	0	1	2
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/10	16/14/11	17/15/12
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
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

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)		4	2	2
Boron	ppm	ASTM D5185(m)	55	17	17	15
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	1	<1
Calcium	ppm	ASTM D5185(m)	0	2	2	2
Phosphorus	ppm	ASTM D5185(m)	240	225	229	225
Zinc	ppm	ASTM D5185(m)	1	5	5	5
Sulfur	ppm	ASTM D5185(m)	13700	4754	5150	5002
Acid Number (AN)	mg KOH/g	ASTM D974*	0.4	0.31	0.35	0.45
Visc @ 40°C	cSt	ASTM D7279(m)	325	331	333	333
Visc @ 100°C	cSt	ASTM D7279(m)	25.22	25.2	25.3	25.3
Viscosity Index (VI)	Scale	ASTM D2270*	100	98	98	98



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0077287 **Received** : 07 Jun 2024
Lab Number : 02640586 **Tested** : 11 Jun 2024
Unique Number : 5789748 **Diagnosed** : 11 Jun 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: KV100, VI)

Vale - Voisey's Bay
 Voisey's Bay Mine Site, P.O. Box 7001, Str. 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