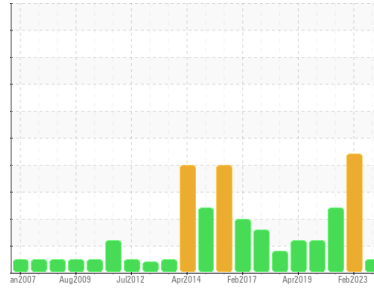


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
1621
Machine Id
1621-5433-6001 - CONCENTRATE RECEIVING STATION AIR COMPRESSOR
Component
Air Compressor
Fluid
INGERSOLL-RAND SSR ULTRA COOLANT (13 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 water content is negligible. 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	PC0077261	PC0040351	PC0040010
Sample Date	Client Info	09 Feb 2024	24 Feb 2023	30 May 2022
Machine Age	yrs Client Info	0	0	0
Oil Age	yrs Client Info	0	0	0
Oil Changed	Client Info	Not Chngd	N/A	N/A
Sample Status		NORMAL	SEVERE	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm ASTM D5185(m) >50	<1	1	<1
Chromium	ppm ASTM D5185(m) >4	0	0	0
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >10	<1	0	<1
Lead	ppm ASTM D5185(m) >20	0	0	0
Copper	ppm ASTM D5185(m) >40	<1	<1	<1
Tin	ppm ASTM D5185(m) >5	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) 0	0	<1	1
Barium	ppm ASTM D5185(m) 500	965	980	984
Molybdenum	ppm ASTM D5185(m) 0	0	0	0
Manganese	ppm ASTM D5185(m)	0	0	0
Magnesium	ppm ASTM D5185(m) 0	<1	0	0
Calcium	ppm ASTM D5185(m) 0	2	<1	2
Phosphorus	ppm ASTM D5185(m) 20	0	0	1
Zinc	ppm ASTM D5185(m) 0	26	2	1
Sulfur	ppm ASTM D5185(m) 200	301	310	286
Lithium	ppm ASTM D5185(m)	<1	<1	0

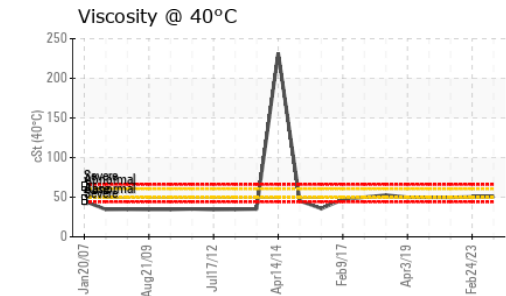
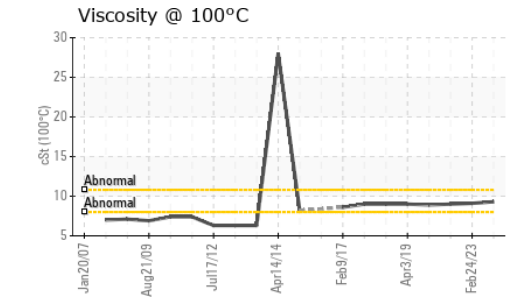
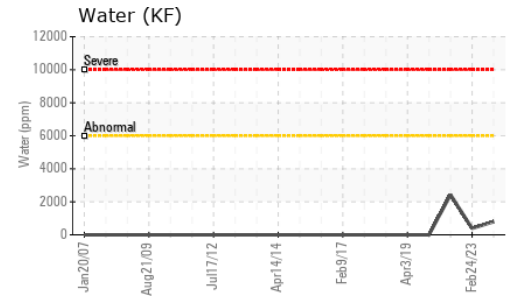
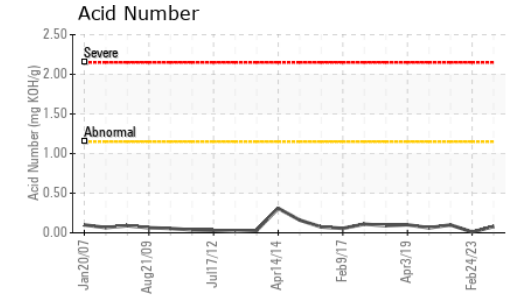
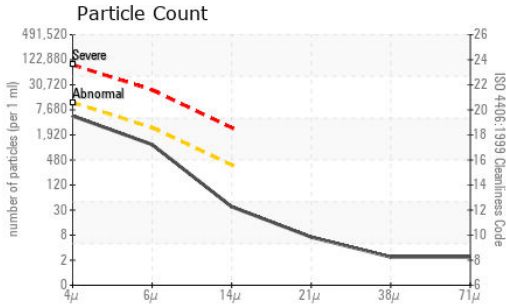
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<1	<1	4
Sodium	ppm ASTM D5185(m)	10	4	3
Potassium	ppm ASTM D5185(m) >20	1	<1	<1
Water	% ASTM D6304* >0.6	0.079	0.039	0.242
ppm Water	ppm ASTM D6304* >6000	795	390.6	2427.6

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	4774	82261	47338
Particles >6µm	ASTM D7647 >2500	985	30488	10744
Particles >14µm	ASTM D7647 >320	32	1770	336
Particles >21µm	ASTM D7647 >80	6	248	31
Particles >38µm	ASTM D7647 >20	2	3	1
Particles >71µm	ASTM D7647 >4	2	1	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	19/17/12	24/22/18	23/21/16

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0077261
Lab Number : 02615974
Unique Number : 5733084
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, TAN Man, 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.

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.08	0.01	0.10

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	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*	>0.6	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)	49.4	50.9	50.4	▲ 49.8
Visc @ 100°C	cSt	ASTM D7279(m)		9.3	9.1	▲ 9
Viscosity Index (VI)	Scale	ASTM D2270*	161	167	163	163

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						