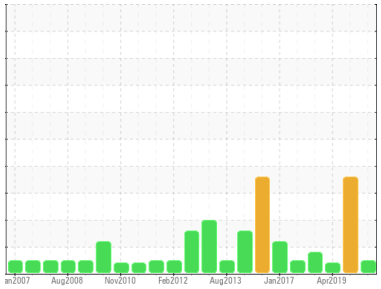
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
1623
Machine Id
1623-5433-6003 - RECLAIM TRANSFER TOWER AIR COMPRESSOR #1
Component
Air Compressor
Fluid
INGERSOLL-RAND SSR ULTRA COOLANT (30 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		**PC0070740**	PC0040350	PC411465
Sample Date		Client Info		**09 Feb 2024**	23 Feb 2023	03 Apr 2019
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**NORMAL**	ABNORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	19
Iron	ppm	ASTM D5185(m)	>50	**0**	<1	<1
Chromium	ppm	ASTM D5185(m)	>4	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>4	**<1**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>10	**<1**	<1	0
Lead	ppm	ASTM D5185(m)	>20	**0**	0	<1
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	0
Barium	ppm	ASTM D5185(m)	500	**957**	522	793
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	0	**5**	▲ 77	2
Phosphorus	ppm	ASTM D5185(m)	20	**5**	▲ 130	2
Zinc	ppm	ASTM D5185(m)	0	**9**	▲ 153	2
Sulfur	ppm	ASTM D5185(m)	200	**304**	488	259
Lithium	ppm	ASTM D5185(m)		**<1**	<1	0

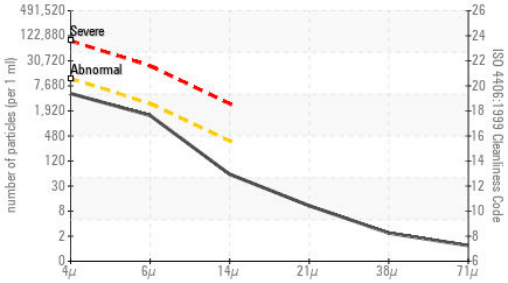
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**<1**	4	<1
Sodium	ppm	ASTM D5185(m)		**3**	6	5
Potassium	ppm	ASTM D5185(m)	>20	**1**	<1	0
Water	%	ASTM D6304*	>0.6	**0.089**	0.001	---
ppm Water	ppm	ASTM D6304*	>6000	**891**	13.6	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**4381**	▲ 70725	▲ 14444
Particles >6µm		ASTM D7647	>2500	**1306**	▲ 18716	2242
Particles >14µm		ASTM D7647	>320	**51**	▲ 500	66
Particles >21µm		ASTM D7647	>80	**9**	62	13
Particles >38µm		ASTM D7647	>20	**2**	1	0
Particles >71µm		ASTM D7647	>4	**1**	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**19/18/13**	▲ 23/21/16	▲ 21/18/13

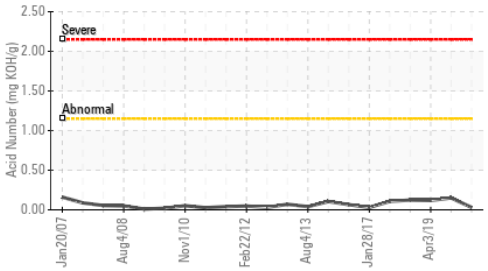
Report Id: INCVOS [WCAMIS] 02615976 (Generated: 02/20/2024 14:00:55) Rev: 1
Contact/Location: Robert Feltham - INCVOS

OIL ANALYSIS REPORT

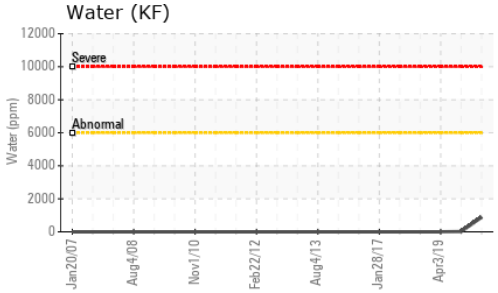
Particle Count



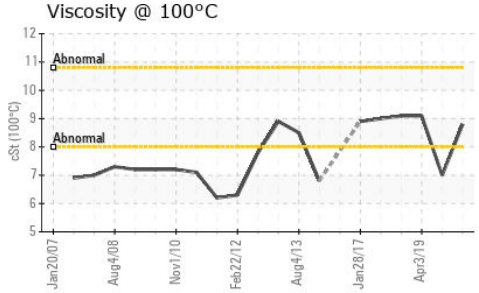
Acid Number



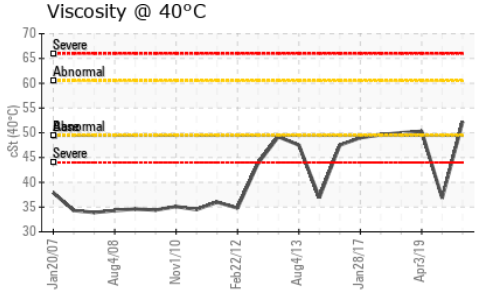
Water (KF)



Viscosity @ 100°C



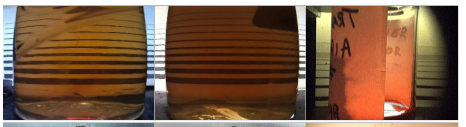
Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.03**	0.15	0.118

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	**VLITE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	▲ LAYRD	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	**52.2**	36.8	50.3
Visc @ 100°C	cSt	ASTM D7279(m)		**8.8**	7	9.1
Viscosity Index (VI)	Scale	ASTM D2270*	161	**147**	154	164

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0070740 **Received** : 15 Feb 2024
Lab Number : 02615976 **Tested** : 20 Feb 2024
Unique Number : 5733086 **Diagnosed** : 20 Feb 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, TAN Man, VI)

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.

Vale - Voisey`s Bay
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