



Area

1851

Machine Id

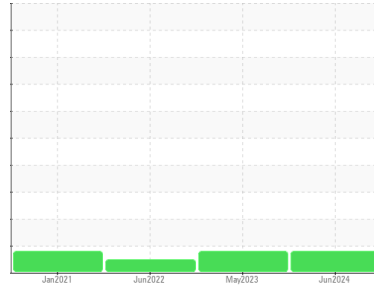
1851-5419-8002 - FIRE WATER DIESEL DRIVEN PUMP

Component

Pump

Fluid

{not provided} (15 LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 150 range, advise investigate. 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		PC0057843	PC0057690	PC0040006
Sample Date	Client Info		11 Jun 2024	16 May 2023	14 Jun 2022
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	N/A	N/A
Sample Status			ATTENTION	ATTENTION	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	0	---
Iron	ppm	ASTM D5185(m) >90	7	11	1
Chromium	ppm	ASTM D5185(m) >5	0	0	0
Nickel	ppm	ASTM D5185(m) >5	<1	0	0
Titanium	ppm	ASTM D5185(m) >3	0	0	0
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >7	<1	0	0
Lead	ppm	ASTM D5185(m) >12	0	0	0
Copper	ppm	ASTM D5185(m) >30	<1	<1	<1
Tin	ppm	ASTM D5185(m) >9	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	<1
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

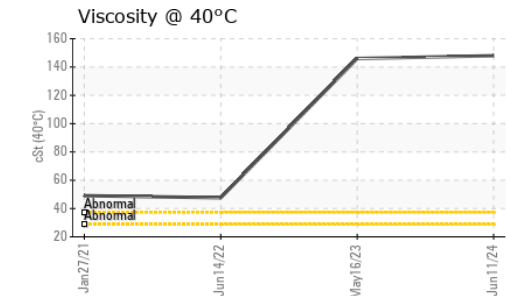
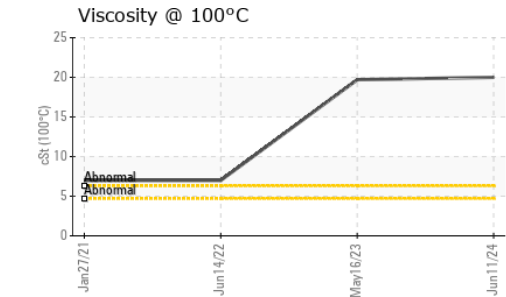
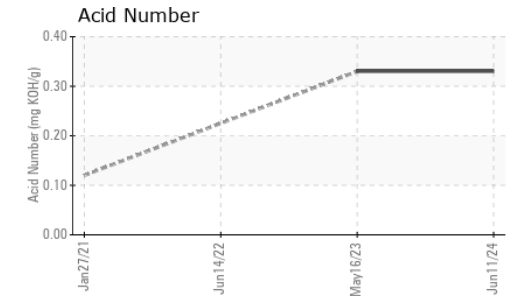
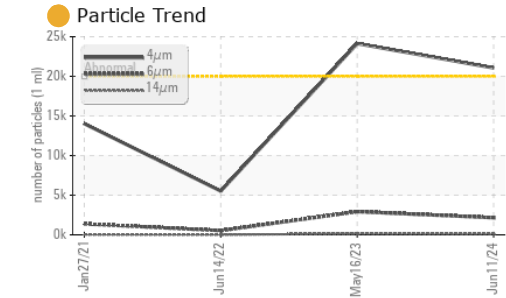
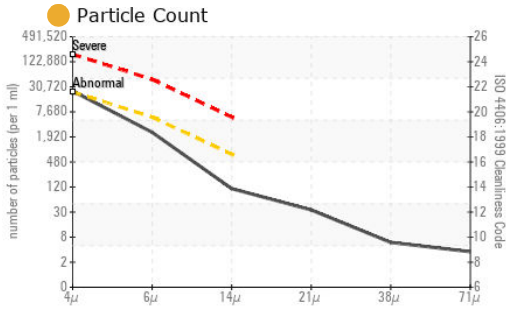
ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<1	<1	0
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	0	<1	0
Magnesium	ppm	ASTM D5185(m)	0	0	0
Calcium	ppm	ASTM D5185(m)	<1	0	4
Phosphorus	ppm	ASTM D5185(m)	82	83	19
Zinc	ppm	ASTM D5185(m)	3	2	8
Sulfur	ppm	ASTM D5185(m)	1807	1988	380
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >60	4	10	1
Sodium	ppm	ASTM D5185(m)	<1	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<1	0	<1

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0057843
Lab Number : 02645650
Unique Number : 5803189
Test Package : IND 2 (Additional Tests: KV100, PQ, PrtCount, TAN Man, VI)

Received : 04 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 08 Jul 2024 - Kevin Marson

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
 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

T:
 F: x:

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	21059	24136	5523
Particles >6µm	ASTM D7647	>5000	2160	2927	530
Particles >14µm	ASTM D7647	>640	97	133	15
Particles >21µm	ASTM D7647	>160	30	35	3
Particles >38µm	ASTM D7647	>40	5	2	1
Particles >71µm	ASTM D7647	>10	3	1	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	22/18/14	22/19/14	20/16/11

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*		0.33	0.33	---

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	VLITE	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*	>.1	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)		148	146	47.6
Visc @ 100°C	cSt ASTM D7279(m)		20.0	19.7	7
Viscosity Index (VI)	Scale ASTM D2270*		156	155	103

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

