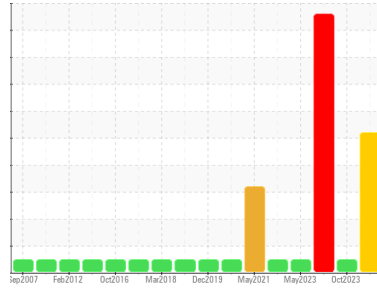


GREASE ANALYSIS

Sample Rating Trend



Area

Cranes

Machine Id
Crane - Mid Ship Slew Brg Grease (S/N Sample Tag MA-04002)

Component

Aft Grease

Fluid

PETRO CANADA PRECISION XL EP2 (--- LTR)

DIAGNOSIS

Recommendation

We recommend that you re-grease the component if this has not already been done. Confirm the source of the grease being utilized for re-greasing. We recommend an early resample to monitor this condition.

Wear

Tin ppm levels are abnormal. Aluminum and antimony ppm levels are noted.

Grease Condition

Additive levels indicate the addition of a different brand, or type of grease. The grease is no longer serviceable as a result of the abnormal and/or severe wear.

Contaminants

Elemental levels of silicon (Si) and aluminum (Al) indicate this is an aluminum-based grease.

Particle Filter (Magn: 10 x)



SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC	PC	PC0061563
Sample Date	Client Info	20 Mar 2024	04 Oct 2023	12 Aug 2023
Machine Age	hrs	0	0	0
Grease Age	hrs	0	0	0
Grease Serviced	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2		
PQ	ASTM D8184*	>200	2760	6910	390	
Iron	ppm	ASTM D5185(m)	>250	569	315	▲ 648
Chromium	ppm	ASTM D5185(m)	>10	5	1	▲ 7
Nickel	ppm	ASTM D5185(m)	>5	2	<1	▲ 2
Cadmium	ppm	ASTM D5185(m)		0	0	0
Titanium	ppm	ASTM D5185(m)		3	0	4
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Lead	ppm	ASTM D5185(m)	>25	10	<1	2
Copper	ppm	ASTM D5185(m)	>75	1	<1	2
Tin	ppm	ASTM D5185(m)	>5	▲ 12	0	1
Silver	ppm	ASTM D5185(m)	>5	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)		2	2	2
Magnesium	ppm	ASTM D5185(m)		● 43	3	● 42
Manganese	ppm	ASTM D5185(m)		4	4	5
Molybdenum	ppm	ASTM D5185(m)		● 269	43	● 122
Phosphorus	ppm	ASTM D5185(m)		37	58	27
Zinc	ppm	ASTM D5185(m)		52	66	54
Antimony	ppm	ASTM D5185(m)		● 16	6	9

THICKENER/SOAP

method	limit/base	current	history1	history2		
Aluminum	ppm	ASTM D5185(m)		● 266	<1	● 218
Barium	ppm	ASTM D5185(m)		2	3	6
Calcium	ppm	ASTM D5185(m)		● 929	99	● 889
Sodium	ppm	ASTM D5185(m)		27	19	21
Lithium	ppm	ASTM D5185(m)		113	172	● 45
Sulfur	ppm	ASTM D5185(m)		● 850	646	664

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>150	● 753	3	▲ 675
Potassium	ppm	ASTM D5185(m)		5	<1	5

GREASE CONDITION

method	limit/base	current	history1	history2		
Grease Color	Visual*	Brown	Black	Brown	Black	
Texture	In-house*	Stringy	Stringy	Long fiber	Stringy	
NLGI Consistency	NLGI Scale	SKF Method*	2	2-3	1-2	2

