

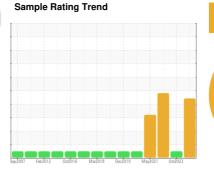
GREASE ANALYSIS

Cranes

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

Forward Grease

PETRO CANADA PRECISION XL EP2 (--- LTR)





DIAGNOSIS

Recommendation

Confirm the source of the grease being utilized for re-greasing. Resample at the next service interval to monitor.

Aluminum and antimony ppm levels are noted. All other component wear rates are normal.

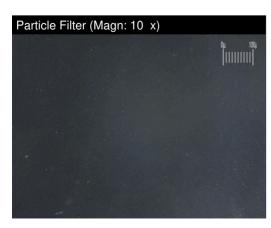
Grease Condition

Additive levels indicate the addition of a different brand, or type of grease. The condition of the grease is acceptable for the time in service.

Contaminants

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

-in)		Sep2007 Fe	b2012 Oct2016 Ma	2018 Dec2019 May2021	0ct2023	
SAMPLE INFOF	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC	PC	PC0061552
Sample Date		Client Info		20 Mar 2024	04 Oct 2023	12 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Grease Age	hrs	Client Info		0	0	0
Grease Serviced		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	ABNORMAL
CONTAMINAT	TION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	_S	method	limit/base	current	history1	history2
PQ		ASTM D8184*	>200	3600	6310	700
Iron	ppm	ASTM D5185(m)	>250	534	281	401
Chromium	ppm	ASTM D5185(m)	>10	4	<1	4
Nickel	ppm	ASTM D5185(m)	>5	2	<1	<1
Cadmium	ppm	ASTM D5185(m)		0	0	0
Titanium	ppm	ASTM D5185(m)		3	0	2
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Lead	ppm	ASTM D5185(m)	>25	<1	<1	3
Copper	ppm	ASTM D5185(m)	>75	1	1	1
Tin	ppm	ASTM D5185(m)	>5	1	0	<u>4</u>
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)		32	6	28
Manganese	ppm	ASTM D5185(m)		3	4	4
Molybdenum	ppm	ASTM D5185(m)		423	34	230
Phosphorus	ppm	ASTM D5185(m)		51	68	35
Zinc	ppm	ASTM D5185(m)		74	83	50
Antimony	ppm	ASTM D5185(m)		<u>25</u>	13	<u> </u>
THICKENER/S	SOAP	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)		<u> </u>	1	162
Barium	ppm	ASTM D5185(m)		2	2	2
Calcium	ppm	ASTM D5185(m)		689	125	560
Sodium	ppm	ASTM D5185(m)		28	57	19
Lithium	ppm	ASTM D5185(m)		181	187	104
Sulfur	ppm	ASTM D5185(m)		980	655	724
CONITANAINIAN	ITO				and the second	



CONTAMINANTS

GREASE COND

ASTM D5185(m)

ASTM D5185(m)

Visual*

NLGI Scale SKF Method* 2

Brown

In-house* Stringy

ppm

ppm

Silicon

Texture

Potassium

Grease Color

NLGI Consistency

Short fiber

3

Brown

1-2

533

Black

2-3

Stringy

462

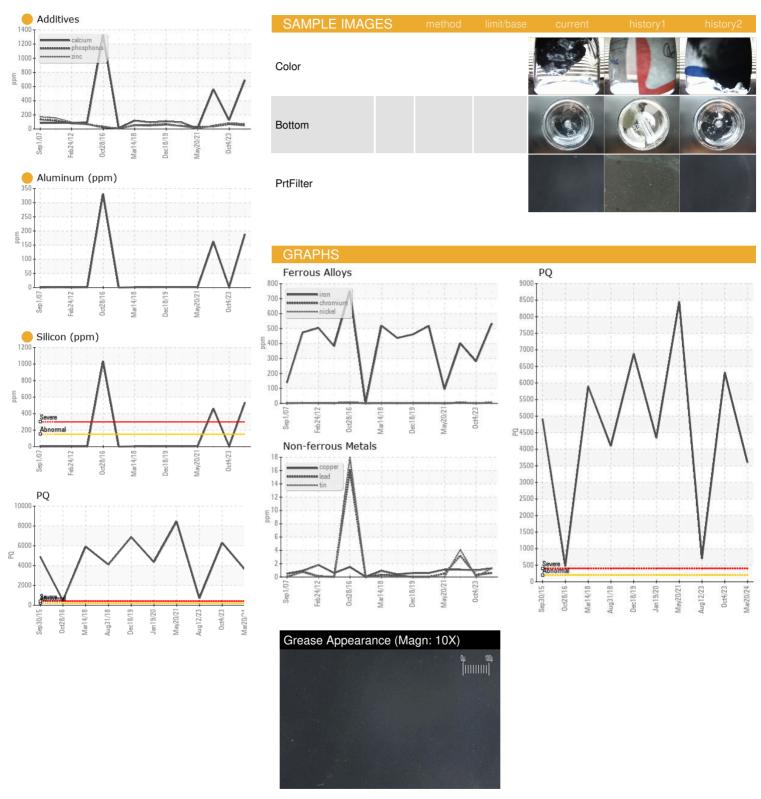
Black

2

Stringy



GREASE ANALYSIS





ISO 17025:2017
Accredited
Laboratory

Laboratory: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Sample No.**: PC **Received**: 02 Apr 2024

Test Package : GRS 1 (Additional Tests: BottomAnalysis, PrtCount, PrtFilter)

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.

Suncor - Terra Nova Projects Scotia Centre, 235 Water Strret

St. John`s, NL CA A1C 1B6 Contact: Josh Hynes

joshynes@suncor.com T: (709)778-3575 F: (709)724-2835

1. (700

Contact/Location: Josh Hynes - TERHAM