

GREASE ANALYSIS

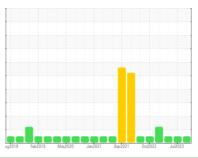
Sample Rating Trend

NORMAL

Materials Handling/NE Pedestal Crane WPD471231 CRANE PEDESTAL NORTH EAST

Component 270° Grease

MOBIL MOBILGREASE XHP 222 (--- GAL)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Grease Condition

The condition of the grease is acceptable for the time in service.

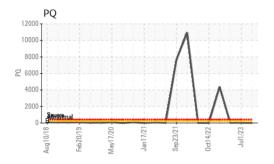
Contaminants

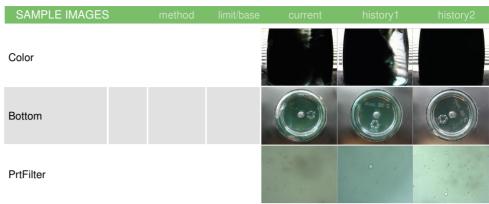
There is no indication of any contamination in the grease.

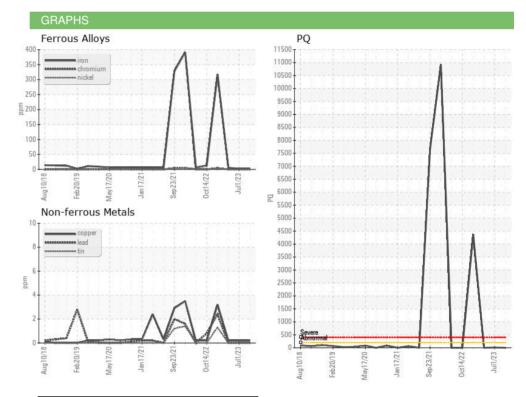
Sample Number				b2019 May2020 Ja	n2021 Sep2021 Oct2022	Jul2023	
Sample Date Client Info 27 Mar 2024 01 Jul 2023 03 May 2022	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 Grease Serviced Client Info 0 0 0 Grease Serviced Client Info N/A N/A N/A N/A Sample Status NoRMAL NORMAL NORMAL NORMAL NORMAL 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 D5185/m >20.0 0 10 0 Iron ppm ASTM D5185/m >20.0 0 0 0 Nickel ppm ASTM D5185/m >10 0 0 0 Cadmium ppm ASTM D5185/m >10 0 0 0 Cadmium ppm ASTM D5185/m >25 0 0 0 Cadadium ppm <	Sample Number		Client Info		PP	PP13897519	PP13891525
Grease Age hrs Client Info N/A N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A 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 D5185m 20.0 0 10 0 Iron ppm ASTM D5185m 20.0 0 10 0 Iron ppm ASTM D5185m 25.0 3 2 5 Chromium ppm ASTM D5185m 25.0 0 0 0 Chromium ppm ASTM D5185m 25.0 0 0 0 Chromium ppm ASTM D5185m 25.0 0 0 0 Vanadium ppm ASTM D5185m 25.0 0 0 0	Sample Date		Client Info		27 Mar 2024	01 Jul 2023	03 May 2023
Grease Serviced Sample Status	Machine Age	hrs	Client Info		0	0	0
Sample Status	Grease Age	hrs	Client Info		0	0	0
Water	Grease Serviced		Client Info		N/A	N/A	N/A
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* >200 0 10 0 Iron ppm ASTM D8185(m) >250 3 2 5 Chromium ppm ASTM D8185(m) >10 0 0 0 Cadmium ppm ASTM D8185(m) >5 0 0 0 Cadmium ppm ASTM D8185(m) 0 0 0 0 Vanadium ppm ASTM D5185(m) 0 0 0 0 Lead ppm ASTM D5185(m) >25 0 0 0 0 Lead ppm ASTM D5185(m) >55 0 0 0 0 Copper ppm ASTM D5185(m) >5 0 0 0 0 Silver ppm ASTM D5185(m) 7 6	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* >200 0 10 0 Iron ppm ASTM D5185(m) >250 3 2 5 Chromium ppm ASTM D5185(m) >10 0 0 0 Nickel ppm ASTM D5185(m) >5 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 1 1 Vanadium ppm ASTM D5185(m) >25 0 0 0 0 1 Lead ppm ASTM D5185(m) >25 0	CONTAMINATION		method	limit/base	current	history1	history2
PQ	Water		WC Method	>0.1	NEG	NEG	NEG
Iron	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >10 0 0 0 Nickel ppm ASTM D5185(m) >5 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 1 Vanadium ppm ASTM D5185(m) 0 0 0 0 Lead ppm ASTM D5185(m) >25 0 0 0 Copper ppm ASTM D5185(m) >5 0 0 0 Copper ppm ASTM D5185(m) >5 0 0 0 Silver ppm ASTM D5185(m) >5 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 7 6 8 Magnesium ppm ASTM D5185(m) 0 0 <1 Molybdenum ppm ASTM D5185(m) 19 119 119 136	PQ		ASTM D8184*	>200	0	10	0
Nickel	Iron	ppm	ASTM D5185(m)	>250	3	2	5
Cadmium ppm ASTM D5185(m) 0 0 0 Titanium ppm ASTM D5185(m) 0 0 <1	Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Titanium	Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium ppm ASTM D5185(m) 0 0 0 Lead ppm ASTM D5185(m) >25 0 0 0 Copper ppm ASTM D5185(m) >75 <1	Cadmium	ppm	ASTM D5185(m)		0	0	0
Lead	Titanium	ppm	ASTM D5185(m)		0	0	<1
Copper ppm ASTM D5185(m) >75 <1	Vanadium	ppm					0
Tin ppm ASTM D5185(m) >5 0 0 0 Silver ppm ASTM D5185(m) >5 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 7 6 8 Magnesium ppm ASTM D5185(m) 0 0 <1	Lead	ppm	()	>25	0		0
Silver		ppm	. ,	>75			
ADDITIVES		ppm	(/	>5			
Boron	Silver	ppm	ASTM D5185(m)	>5	0	0	0
Magnesium ppm ASTM D5185(m) 2 2 3 Manganese ppm ASTM D5185(m) 0 0 <1 Molybdenum ppm ASTM D5185(m) 3 4 5 Phosphorus ppm ASTM D5185(m) 119 119 119 136 Zinc ppm ASTM D5185(m) 198 184 184 Antimony ppm ASTM D5185(m) 6 6 8 THICKENER/SOAP method limit/base current history1 history2 Aluminum ppm ASTM D5185(m) 0 <1 0 Barium ppm ASTM D5185(m) 7 6 9 Sodium ppm ASTM D5185(m) 7 6 9 Sodium ppm ASTM D5185(m) 210 191 148 Sulfur ppm ASTM D5185(m) >776 687 765 CONTAMINANTS method limit/base current	ADDITIVES		method	limit/base	current	history1	history2
Manganese ppm ASTM D5185(m) 0 0 <1	Boron	ppm	ASTM D5185(m)		7	6	8
Molybdenum ppm ASTM D5185(m) 3 4 5 Phosphorus ppm ASTM D5185(m) 119 119 136 Zinc ppm ASTM D5185(m) 198 184 184 Antimony ppm ASTM D5185(m) 6 6 8 THICKENER/SOAP method limit/base current history1 history2 Aluminum ppm ASTM D5185(m) 0 <1 0 Barium ppm ASTM D5185(m) 7 6 9 Sodium ppm ASTM D5185(m) 14 8 14 Lithium ppm ASTM D5185(m) 210 191 148 Sulfur ppm ASTM D5185(m) 776 687 765 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m)	Magnesium	ppm	ASTM D5185(m)		2	2	3
Phosphorus ppm ASTM D5185(m) 119 119 136 Zinc ppm ASTM D5185(m) 198 184 184 Antimony ppm ASTM D5185(m) 6 6 8 THICKENER/SOAP method limit/base current history1 history2 Aluminum ppm ASTM D5185(m) 0 <1 0 Barium ppm ASTM D5185(m) 7 6 9 Sodium ppm ASTM D5185(m) 7 6 9 Sodium ppm ASTM D5185(m) 14 8 14 Lithium ppm ASTM D5185(m) 210 191 148 Sulfur ppm ASTM D5185(m) 776 687 765 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m)	Manganese	ppm	ASTM D5185(m)				
Zinc ppm ASTM D5185(m) 198 184 184 Antimony ppm ASTM D5185(m) 6 6 8 THICKENER/SOAP method limit/base current history1 history2 Aluminum ppm ASTM D5185(m) 0 <1	•	ppm	,				
Antimony ppm ASTM D5185(m) 6 6 8 THICKENER/SOAP method limit/base current history1 history2 Aluminum ppm ASTM D5185(m) 0 <1 0 Barium ppm ASTM D5185(m) <1 <1 <1 Calcium ppm ASTM D5185(m) 7 6 9 Sodium ppm ASTM D5185(m) 14 8 14 Lithium ppm ASTM D5185(m) 210 191 148 Sulfur ppm ASTM D5185(m) 776 687 765 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m) >150 0 <1 <1 GREASE CONDITION method limit/base current history1 history2 Grease Color Visual* </th <th></th> <th>ppm</th> <th>. ,</th> <th></th> <th>_</th> <th></th> <th></th>		ppm	. ,		_		
THICKENER/SOAP method limit/base current history1 history2 Aluminum ppm ASTM D5185(m) 0 <1	-	ppm	, ,				
Aluminum ppm ASTM D5185(m) 0 <1	Antimony	ppm	ASTM D5185(m)		6	6	8
Barium ppm ASTM D5185(m) <1	THICKENER/SOAI	Р	method	limit/base	current	history1	history2
Calcium ppm ASTM D5185(m) 7 6 9 Sodium ppm ASTM D5185(m) 14 8 14 Lithium ppm ASTM D5185(m) 210 191 148 Sulfur ppm ASTM D5185(m) 776 687 765 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m) <1 <1 <1 GREASE CONDITION method limit/base current history1 history2 Grease Color Visual* Dk Blue Green Green Green Texture In-house* Short fiber Short fiber Stringy	Aluminum	ppm	. ,		0		0
Sodium ppm ASTM D5185(m) 14 8 14 Lithium ppm ASTM D5185(m) 210 191 148 Sulfur ppm ASTM D5185(m) 776 687 765 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m) <1 <1 <1 GREASE CONDITION method limit/base current history1 history2 Grease Color Visual* Dk Blue Green Green Green Texture In-house* Short fiber Short fiber Stringy	Barium	ppm	ASTM D5185(m)		<1		
Lithium ppm ASTM D5185(m) 210 191 148 Sulfur ppm ASTM D5185(m) 776 687 765 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m) <1 <1 <1 GREASE CONDITION method limit/base current history1 history2 Grease Color Visual* Dk Blue Green Green Green Texture In-house* Short fiber Short fiber Stringy	Calcium	ppm	ASTM D5185(m)		7	6	9
Sulfur ppm ASTM D5185(m) 776 687 765 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m) <1 <1 <1 GREASE CONDITION method limit/base current history1 history2 Grease Color Visual* Dk Blue Green Green Green Texture In-house* Short fiber Short fiber Stringy		ppm	, ,				
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >150 0 <1 <1 Potassium ppm ASTM D5185(m) <1 <1 <1 GREASE CONDITION method limit/base current history1 history2 Grease Color Visual* Dk Blue Green Green Green Texture In-house* Short fiber Short fiber Stringy			. ,				
Silicon ppm ASTM D5185(m) >150 0 <1	Sulfur	ppm	ASTM D5185(m)		776	687	765
Potassium ppm ASTM D5185(m) <1	CONTAMINANTS		method	limit/base	current	history1	history2
GREASE CONDITION method limit/base current history1 history2 Grease Color Visual* Dk Blue Green Green Green Texture In-house* Short fiber Short fiber Stringy	Silicon	ppm	ASTM D5185(m)	>150	0	<1	<1
Grease Color Visual* Dk Blue Green Green Green Texture In-house* Short fiber Short fiber Stringy	Potassium	ppm	ASTM D5185(m)		<1	<1	<1
Texture In-house* Short fiber Short fiber Stringy	GREASE CONDIT	ION	method	limit/base	current	history1	history2
	Grease Color		Visual*	Dk Blue	Green	Green	Green
NLGI Consistency NLGI Scale SKF Method* 2 1-2 2	Texture		In-house*		Short fiber	Short fiber	Stringy
	NLGI Consistency	NLGI Scale	SKF Method*	2	1-2	2	2



GREASE ANALYSIS











CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: PP Lab Number : 02625483 Unique Number : 5750602

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Tested Diagnosed Test Package: GRS 1 (Additional Tests: BottomAnalysis)

Received : 28 Mar 2024 : 03 Apr 2024

: 03 Apr 2024 - Bill Quesnel

Hebron-Materials and Repair Coordin, Suite 1000, 100 New Gow St. John's, NL

CA A1C 6K3 Contact: Liam Maher liam.m.maher@exxonmobil.com

ExxonMobil Canada East Ltd.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

T: (709)273-3729

Validity of results and interpretation are based on the sample and information as supplied.