

## **OIL ANALYSIS REPORT**

### Area EAST CRANE [14000590] 170832 AGG #2

Hydraulic System AW HYDRAULIC OIL ISO 32 (--- GAL)

#### Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. 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.

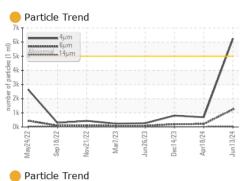
#### Fluid Condition

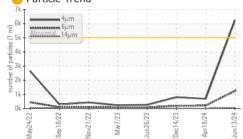
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. Sample Rating Trend ISO

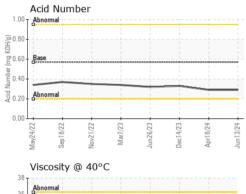
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PP	PP	PP
Sample Date		Client Info		13 Jun 2024	18 Apr 2024	14 Dec 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	2	2	2
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	0	0	<1
Lead	ppm	ASTM D5185(m)	>20	0	<1	<1
Copper	ppm	ASTM D5185(m)	>20	7	7	7
Tin	ppm	ASTM D5185(m)	>10	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
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 5	current <1	history1 <1	history2 1
	ppm ppm	ASTM D5185(m)				
Boron		ASTM D5185(m)	5	<1	<1	1
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	5 5	<1 0	<1 0	1 <1
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5	<1 0 0	<1 0 0	1 <1 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5	<1 0 0 0	<1 0 0 0	1 <1 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25	<1 0 0 0 6	<1 0 0 0 6	1 <1 0 0 5
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200	<1 0 0 0 6 65	<1 0 0 0 6 64	1 <1 0 0 5 65
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300	<1 0 0 0 6 65 229	<1 0 0 6 64 231	1 <1 0 0 5 65 233
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370	<1 0 0 6 65 229 272	<1 0 0 6 64 231 275	1 <1 0 0 5 65 233 279
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370	<1 0 0 6 65 229 272 2267	<1 0 0 6 64 231 275 2274	1 <1 0 5 65 233 279 2411
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370 2500	<1 0 0 6 65 229 272 2267 <1	<1 0 0 6 64 231 275 2274 <1	1 <1 0 5 65 233 279 2411 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370 2500	<1 0 0 6 65 229 272 2267 <1 <i>current</i>	<1 0 0 6 64 231 275 2274 <1 history1	1 <1 0 0 5 65 233 279 2411 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>Method</b> ASTM D5185(m)	5 5 25 200 300 370 2500	<1 0 0 6 65 229 272 2267 <1 current 2	<1 0 0 6 64 231 275 2274 <1 history1 1	1 <1 0 5 65 233 279 2411 <1 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 2500 <b>limit/base</b> >15	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1	<1 0 0 6 64 231 275 2274 <1 <b>history1</b> 1 0	1 <1 0 5 65 233 279 2411 <1 <b>history2</b> 3 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 2500 <b>limit/base</b> >15 >20	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1 2 2 4 1 2 2 4 1 4	<1 0 0 6 64 231 275 2274 <1 <u>history1</u> 1 0 <1	1 <1 0 0 5 65 233 279 2411 <1 history2 3 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 2500 <b>imit/base</b> >25 20	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 <21 2267 2267 2267 2267 2267 2267 2267 22	<1 0 0 6 64 231 275 2274 <1 <b>history1</b> 1 0 <1 <b>history1</b>	1 <1 0 0 5 65 233 279 2411 <1 history2 3 <1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 200 300 370 2500 2500 <b>imit/base</b> >20 <b>imit/base</b> >20	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <1 2267 <2 2 20 272 2267 <2 2 2267 <2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<1 0 0 6 64 231 275 2274 <1 <b>history1</b> 1 0 <1 <b>history1</b> 690	1 <1 0 0 5 65 233 279 2411 <1 history2 3 <1 0 history2 804
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 200 300 370 2500 2500 imit/base >15 >20 imit/base >5000 >1300 >160	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1 2 2 4 1 2 2 5 6 2 4 1 5 6 2 4 1 5 7 2 9 7 2 7 2 2 6 7 2 2 7 2 2 2 2 7 2 2 2 7 2 2 2 2 7 2 2 2 2 7 2 2 2 2 7 2 2 2 2 7 2 2 2 2 7 2 2 2 2 7 2	<1 0 0 0 6 64 231 275 2274 <1 history1 1 0 <1 history1 690 209	1 <1 0 0 5 65 233 279 2411 <1 history2 3 <1 0 history2 804 200
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIR Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000 >1300 >160 >40	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1 21 20 21 21 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 6 64 231 275 2274 <1 <b>history1</b> 1 0 <1 <b>history1</b> 690 209 18	1 <10 0 5 65 233 279 2411 <1 history2 3 <10 0 history2 804 200 12
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000 >1300 >160 >40 >10	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1 2 2 41 <1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 0 6 64 231 275 2274 <1 history1 1 0 <1 history1 690 209 18 5	1 <1 0 0 5 65 233 279 2411 <1 history2 3 <1 0 history2 804 200 12 3 <12 12 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >4µm Particles >14µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000 >1300 >160 >40 >10	<1 0 0 6 65 229 272 2267 <1 2267 <1 2267 <1 2267 <1 2 2 41 <1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 6 6 4 231 275 2274 <1 history1 1 0 <1 history1 690 209 18 5 1	1 <10 0 5 65 233 279 2411 <1 history2 3 <10 0 history2 804 200 12 3 1

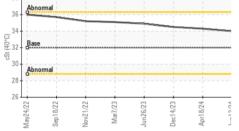


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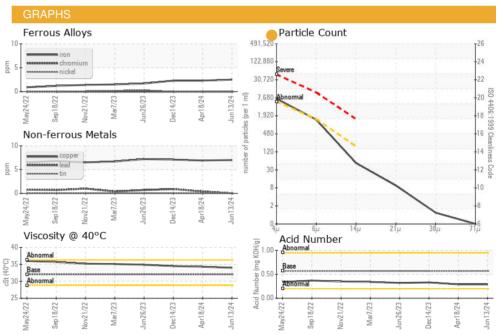


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.29	0.29	0.33
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	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*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	34.0	34.3	34.5
SAMPLE IMAGES	6	method	limit/base	current	history1	history2

Color

Bottom





Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **HIBERNIA MGMT & DEVELOPMENT CO. LTD** CALA Sample No. : PP Received : 14 Jun 2024 SUITE 1000,, 100 NEW GOWER STREET Lab Number : 02641968 Tested : 17 Jun 2024 ST.JOHNS, NL ISO 17025:2017 Accredited Unique Number : 5799507 Diagnosed : 17 Jun 2024 - Wes Davis CA A1C 6K3 Laboratory Test Package : IND 2 Contact: Sam Nash To discuss this sample report, contact Customer Service at 1-800-268-2131. samantha.m.nash@exxonmobil.com Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: Validity of results and interpretation are based on the sample and information as supplied. F: (709)722-3766

Report Id: HIBSTJ [WCAMIS] 02641968 (Generated: 06/17/2024 08:52:13) Rev: 1

Contact/Location: Sam Nash - HIBSTJ Page 2 of 2