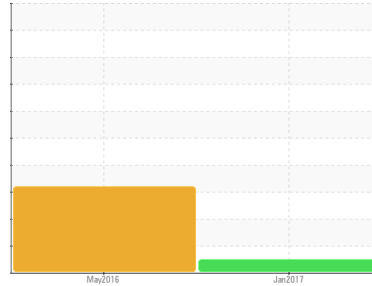




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**KM3301 MOTOR ELECT AC**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## DIAGNOSIS

### 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. 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

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### Fluid Condition

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			<b>PP2391057</b>	WC	---
Sample Date	Client Info			<b>25 Jan 2017</b>	02 May 2016	---
Machine Age	cyc	Client Info		<b>0</b>	0	---
Oil Age	cyc	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	0	---
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	0	---
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185(m)	>10	<b>1</b>	1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	<1	---
Barium	ppm	ASTM D5185(m)	5	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	0	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185(m)	25	<b>0</b>	0	---
Calcium	ppm	ASTM D5185(m)	200	<b>56</b>	56	---
Phosphorus	ppm	ASTM D5185(m)	300	<b>329</b>	340	---
Zinc	ppm	ASTM D5185(m)	370	<b>436</b>	435	---
Sulfur	ppm	ASTM D5185(m)	2500	<b>3632</b>	3739	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

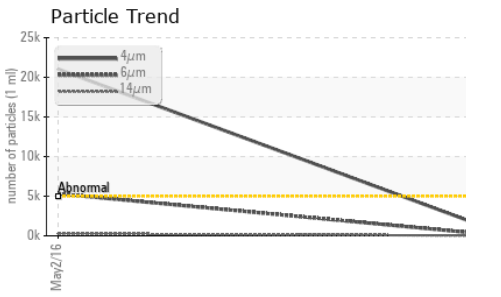
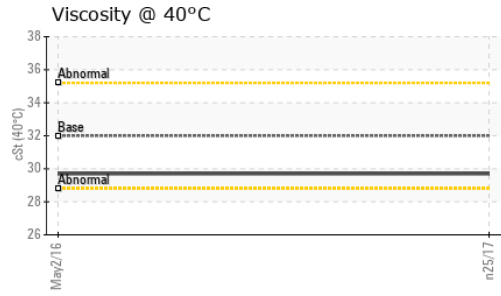
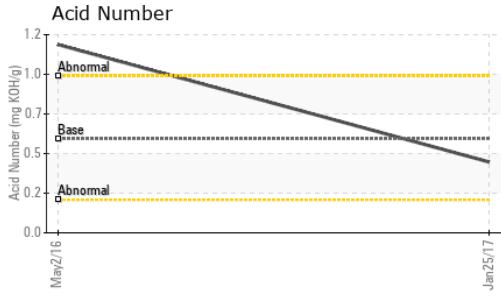
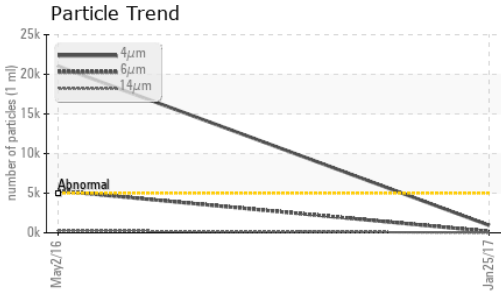
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>1</b>	2	---
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>943</b>	▲ 21037	---
Particles >6µm		ASTM D7647	>1300	<b>180</b>	▲ 5304	---
Particles >14µm		ASTM D7647	>160	<b>14</b>	▲ 276	---
Particles >21µm		ASTM D7647	>40	<b>4</b>	▲ 76	---
Particles >38µm		ASTM D7647	>10	<b>0</b>	10	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>17/15/11</b>	▲ 22/20/15	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	<b>0.429</b>	1.14	---



# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	▲ VLITE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>VLITE</b>	▲ VLITE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	---
Free Water	scalar	Visual*		<b>NEG</b>	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32	<b>29.7</b>	29.7	---

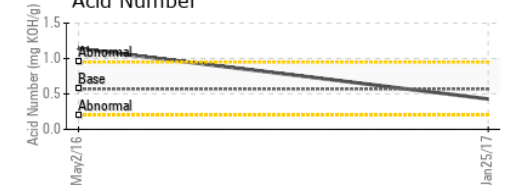
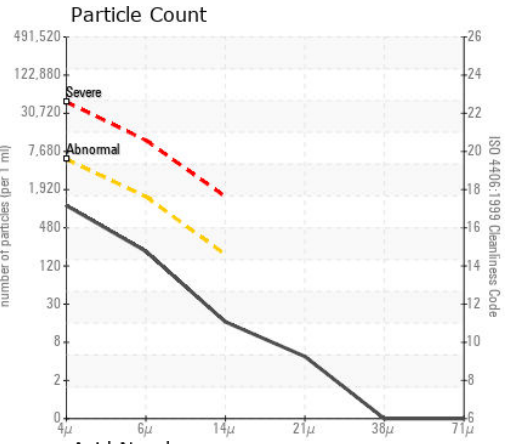
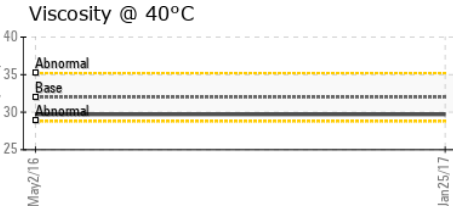
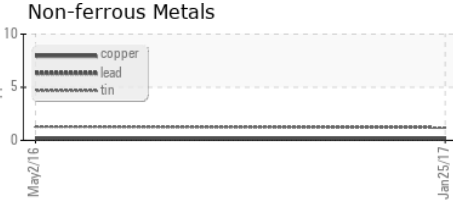
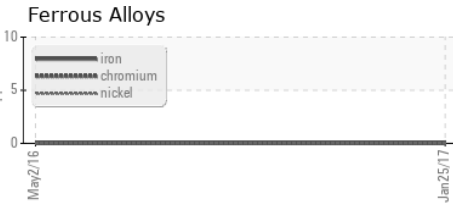
SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

**Color**

**Bottom**

**PrtFilter**

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HIBERNIA MGMT & DEVELOPMENT CO. LTD  
**Sample No.** : PP2391057 **Received** : 10 Feb 2017 SUITE 1000,, 100 NEW GOWER STREET  
**Lab Number** : 02126781 **Diagnosed** : 10 Feb 2017 ST.JOHNS, NL  
**Unique Number** : 4457166 **Diagnostician** : Wes Davis CA A1C 6K3  
**Test Package** : MAR 2 ( Additional Tests: TAN Man ) Contact: Sam Nash

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. T: samantha.m.nash@exxonmobil.com  
 F: (709)722-3766