



Area  
**DANIEL P MECKLENBORG**  
Machine Id  
**[DANIEL P MECKLENBORG] 011 - FLANKING 608409-11**  
Component  
**Hydraulic System**  
Fluid  
**CHEVRON RANDO HDZ 68 (--- GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW06221816</b>	MW0058572	MW0053479
Sample Date		Client Info		<b>01 Jun 2024</b>	04 Dec 2023	06 Jun 2023
Machine Age	hrs	Client Info		<b>65000</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>2</b>	<1	1
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m	>20	<b>1</b>	1	<1
Copper	ppm	ASTM D5185m	>20	<b>▲ 24</b>	▲ 23	▲ 23
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

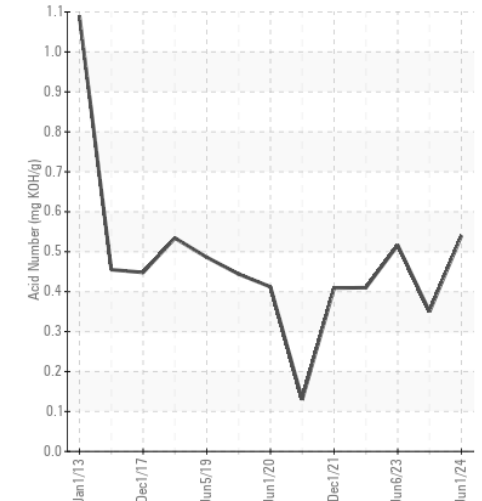
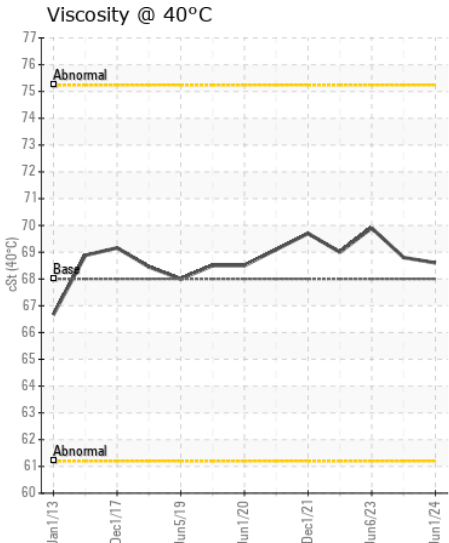
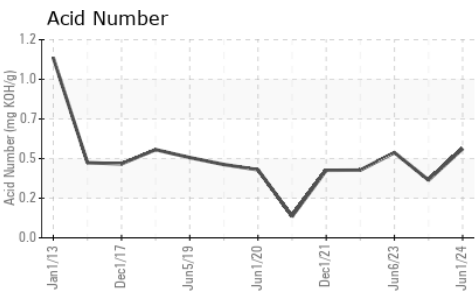
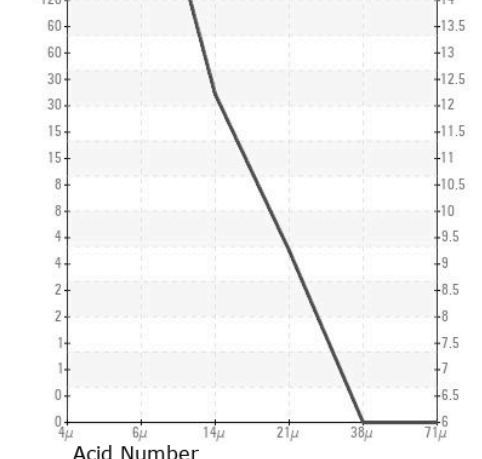
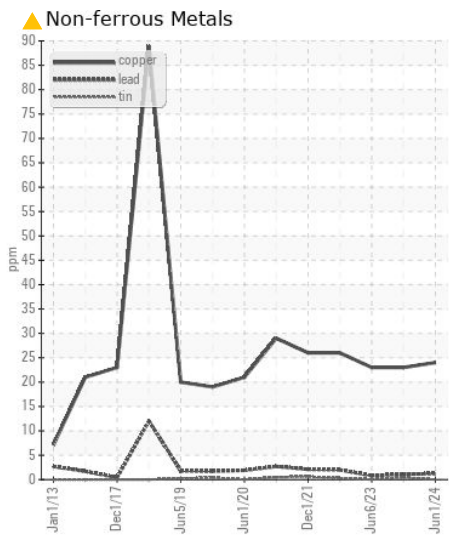
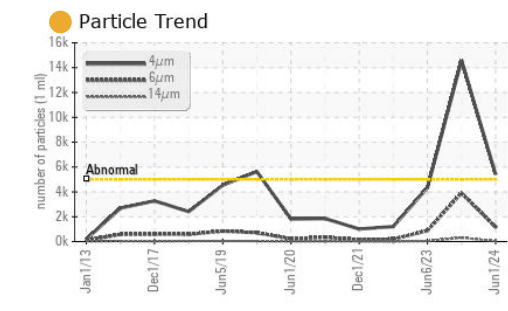
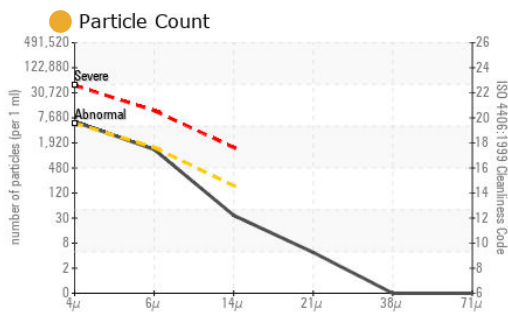
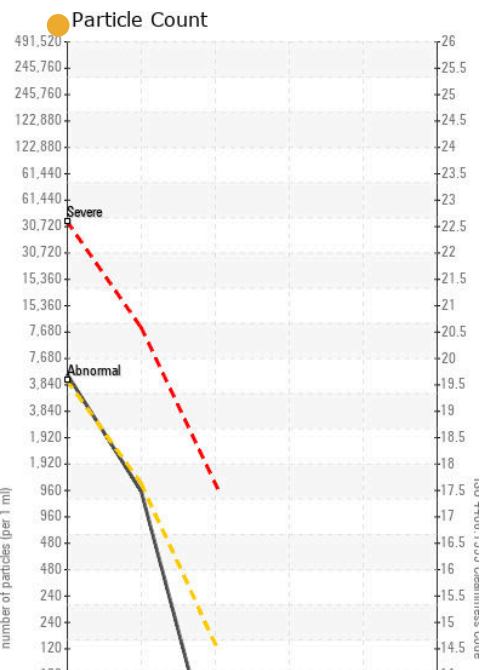
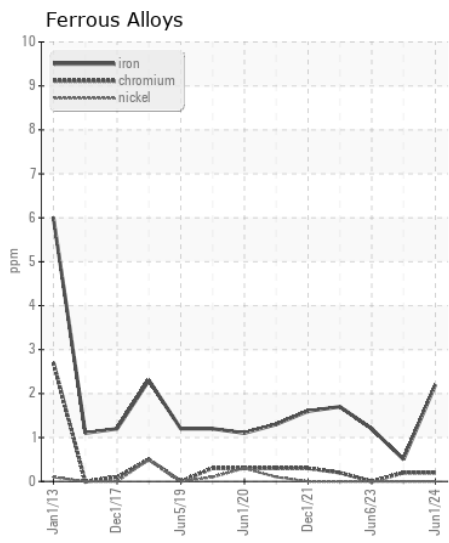
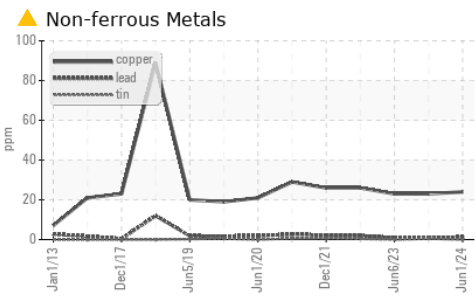
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Water		WC Method	>0.05	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>● 5417</b>	▲ 14583	4336
Particles >6µm		ASTM D7647	>1300	<b>1172</b>	▲ 3906	871
Particles >14µm		ASTM D7647	>160	<b>31</b>	▲ 312	35
Particles >21µm		ASTM D7647	>40	<b>4</b>	▲ 90	6
Particles >38µm		ASTM D7647	>10	<b>0</b>	5	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>● 20/17/12</b>	▲ 21/19/15	19/17/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>1</b>	<1	<1
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	0	<b>7</b>	11	10
Calcium	ppm	ASTM D5185m	75	<b>116</b>	102	107
Phosphorus	ppm	ASTM D5185m	275	<b>372</b>	351	370
Zinc	ppm	ASTM D5185m	350	<b>474</b>	451	451
Sulfur	ppm	ASTM D5185m	550	<b>1432</b>	1238	1483
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.54</b>	0.35	0.516
Visc @ 40°C	cSt	ASTM D445	68.0	<b>68.6</b>	68.8	69.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW06221816 **Received** : 26 Jun 2024  
**Lab Number** : 06221816 **Tested** : 28 Jun 2024  
**Unique Number** : 11100013 **Diagnosed** : 28 Jun 2024 - Don Baldrige  
**Test Package** : MAR 2

**INGRAM BARGE**  
 900 S 3RD ST  
 PADUCAH, KY  
 US 42003  
 Contact: DALE MORIE  
 dale.morie@ingrambarga.com  
 T: (270)415-4467  
 F: (615)695-3697

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)