



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
EILEEN BIGELOW
Machine Id
[EILEEN BIGELOW] 002 588445-2
Component
Center Main Engine
Fluid
CHEVRON DELO 710 LE (300 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW06221853	MW06149599	MW06120328
Sample Date		Client Info		01 Jun 2024	01 Apr 2024	16 Mar 2024
Machine Age	hrs	Client Info		8371	6919	0
Oil Age	hrs	Client Info		8371	6919	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	27	20	24
Chromium	ppm	ASTM D5185m	>8	3	2	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	1	2
Lead	ppm	ASTM D5185m	>18	6	4	7
Copper	ppm	ASTM D5185m	>80	17	16	15
Tin	ppm	ASTM D5185m	>14	10	9	10
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

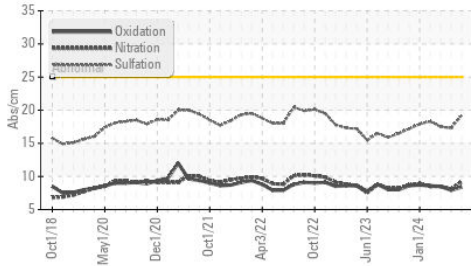
Silicon	ppm	ASTM D5185m	>20	12	5	5
Potassium	ppm	ASTM D5185m	>20	2	0	0
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.6	1	1
Nitration	Abs/cm	*ASTM D7624	>20	9.2	8.1	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	17.3	17.5
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

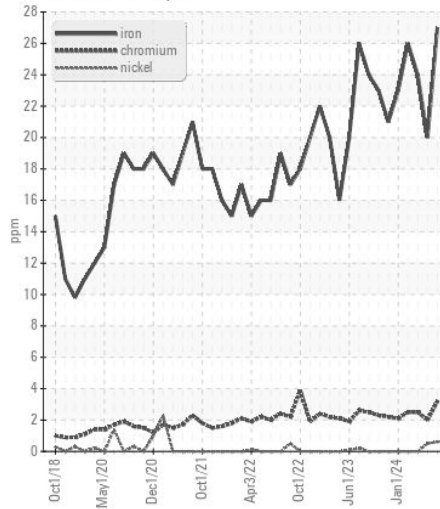
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	0	2	1
Boron	ppm	ASTM D5185m		38	39	39
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		51	44	50
Manganese	ppm	ASTM D5185m		3	2	2
Magnesium	ppm	ASTM D5185m		11	10	26
Calcium	ppm	ASTM D5185m		3698	3480	3782
Phosphorus	ppm	ASTM D5185m		26	4	13
Zinc	ppm	ASTM D5185m	10	16	0	18
Sulfur	ppm	ASTM D5185m		2322	2504	2838
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.4	7.9	8.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.2	10.13	9.62	9.94
Visc @ 100°C	cSt	ASTM D445	15.5	15.3	15.1	15.2

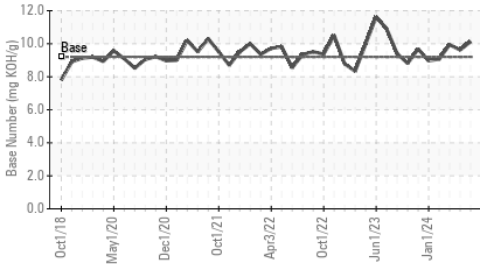
FT-IR (Direct Trend)



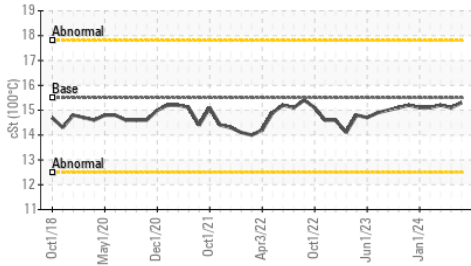
Ferrous Alloys



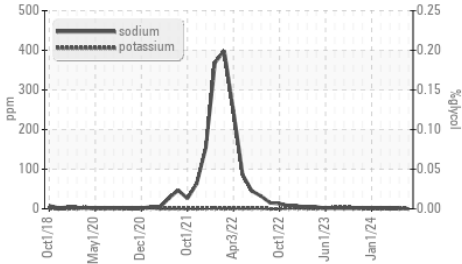
Base Number



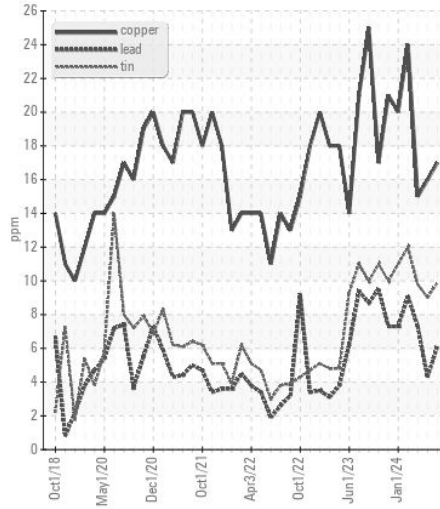
Viscosity @ 100°C



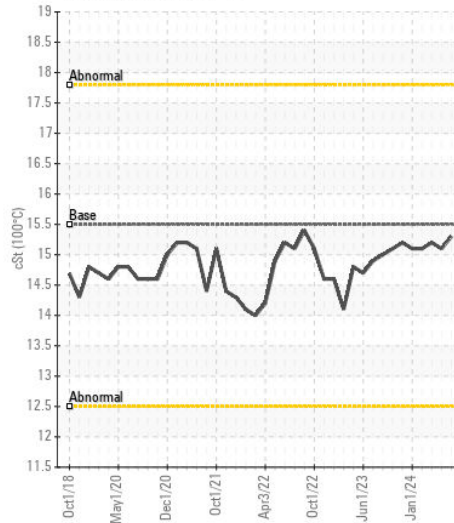
Glycol Contamination



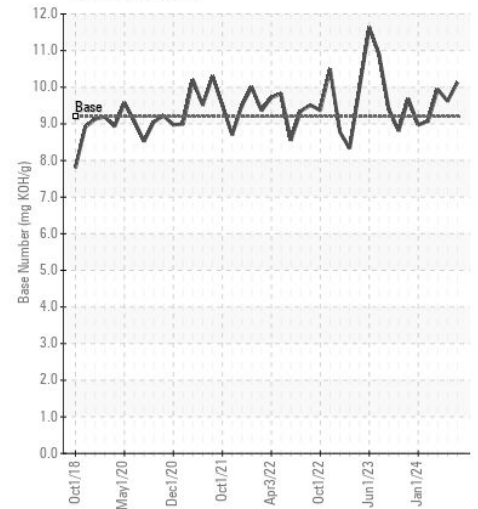
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06221853 **Received** : 26 Jun 2024
Lab Number : 06221853 **Tested** : 29 Jun 2024
Unique Number : 11100050 **Diagnosed** : 29 Jun 2024 - Don Baldrige
Test Package : MAR 2 (Additional Tests: Glycol)

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003

Contact: TONY HUCKABEE
 tony.huckabee@ingrambarge.com
 T: (270)415-4467
 F: (615)695-3697

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)