



Area
PATRICIA I HART
Machine Id
[PATRICIA I HART] 001 590874-1
Component
Port Main Engine
Fluid
CHEVRON DELO 710 LE (200 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		MW0605518	MW0059886	MW0038726
Sample Date		Client Info		01 Oct 2023	01 Sep 2023	07 Jul 2023
Machine Age	hrs	Client Info		23565	22048	21653
Oil Age	hrs	Client Info		11158	10441	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				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	26	33	39
Chromium	ppm	ASTM D5185m	>8	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	<1	2
Lead	ppm	ASTM D5185m	>18	11	13	10
Copper	ppm	ASTM D5185m	>80	33	37	35
Tin	ppm	ASTM D5185m	>14	8	10	10
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

The high sodium (Na) level indicates the possible presence of salt water. Elemental level of silicon (Si) above normal.

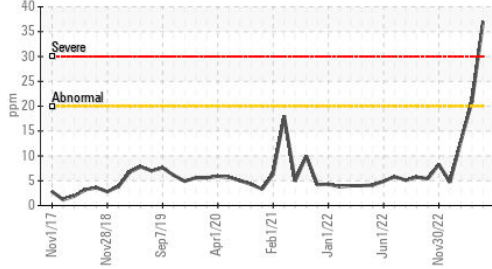
Silicon	ppm	ASTM D5185m	>20	▲ 37	▲ 21	13
Potassium	ppm	ASTM D5185m	>20	3	2	1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.7	9.2	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	17.3	17.4
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

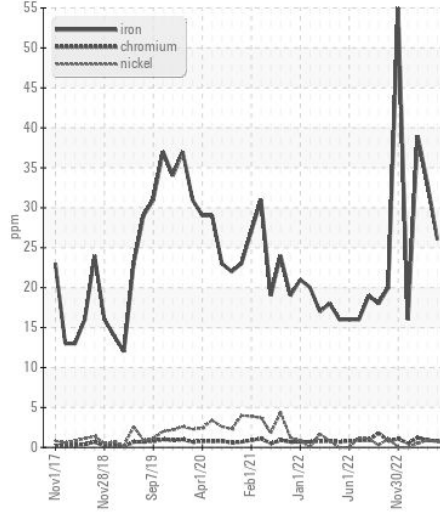
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	▲ 293	▲ 160	▲ 100
Boron	ppm	ASTM D5185m		75	62	65
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		44	49	48
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		16	12	19
Calcium	ppm	ASTM D5185m		3334	3787	3796
Phosphorus	ppm	ASTM D5185m		7	5	8
Zinc	ppm	ASTM D5185m	10	0	0	0
Sulfur	ppm	ASTM D5185m		2330	2807	3060
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	9.1	9.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.2	9.19	8.59	8.52
Visc @ 100°C	cSt	ASTM D445	15.5	14.7	14.8	14.8

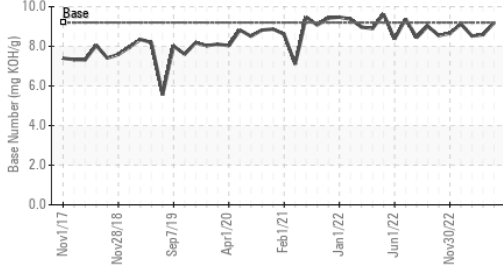
▲ Silicon (ppm)



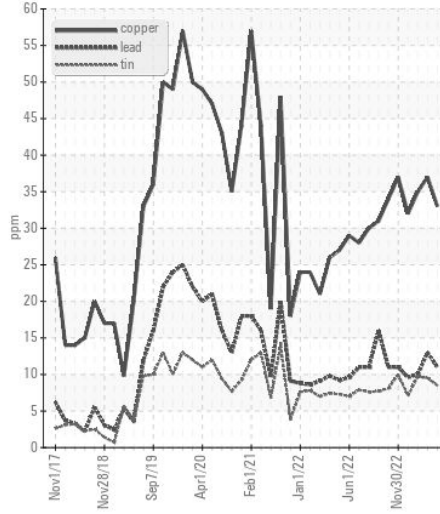
Ferrous Alloys



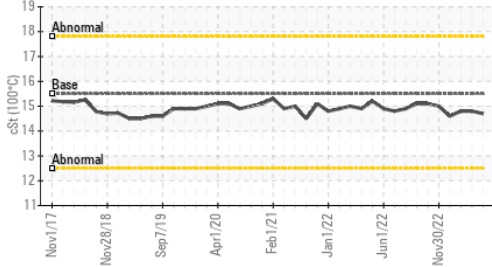
Base Number



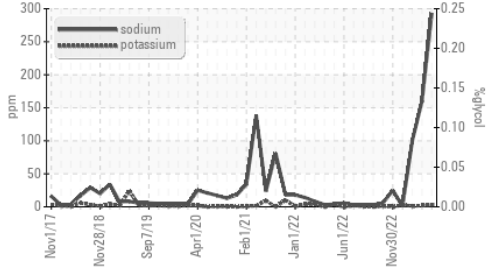
Non-ferrous Metals



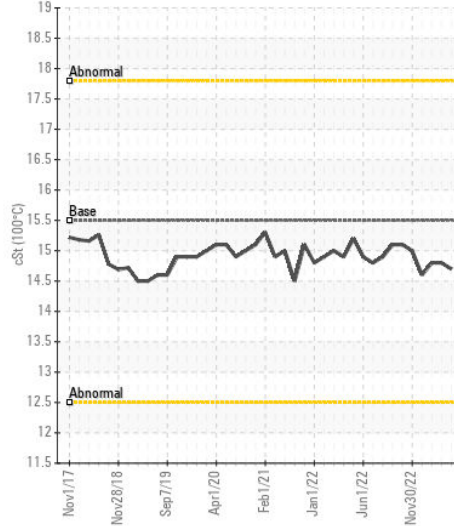
Viscosity @ 100°C



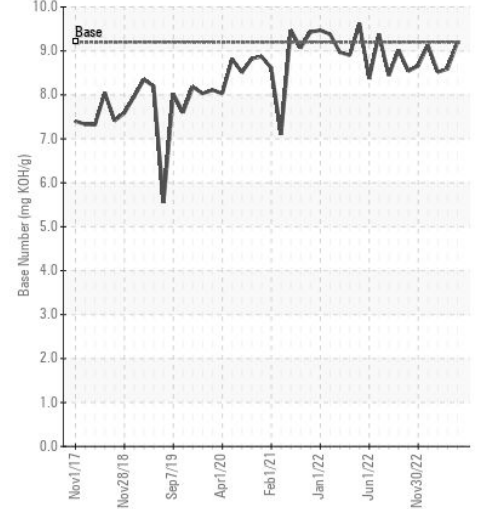
Glycol Contamination



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06055518 **Received** : 09 Jan 2024
Lab Number : 06055518 **Diagnosed** : 10 Jan 2024
Unique Number : 10821467 **Diagnostician** : Don Baldrige
Test Package : MAR 2 (Additional Tests: Glycol)

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)

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