



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KAWASAKI 90ZV F-62 (S/N 90C4-5231)
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 SDE SAE 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0879492	WC0828398	WC0869342
Sample Date		Client Info		29 Jan 2024	12 Dec 2023	25 Oct 2023
Machine Age	hrs	Client Info		41074	40804	40532
Oil Age	hrs	Client Info		958	40804	416
Filter Age	hrs	Client Info		958	272	416
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				NORMAL	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	2	3	5
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	76	66	40
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	1	2
Lead	ppm	ASTM D5185m	>40	1	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	4	1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

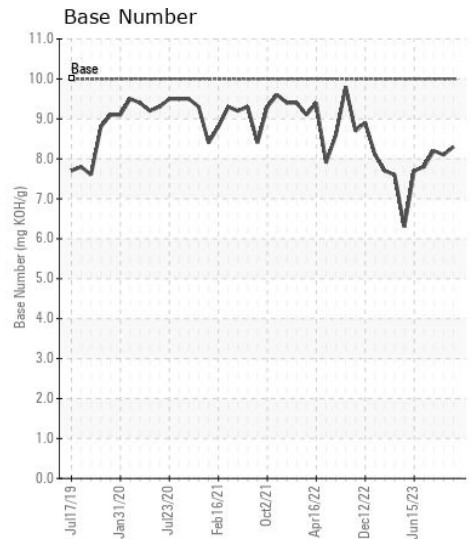
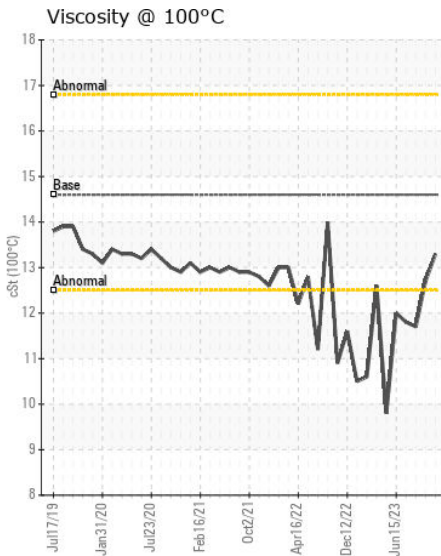
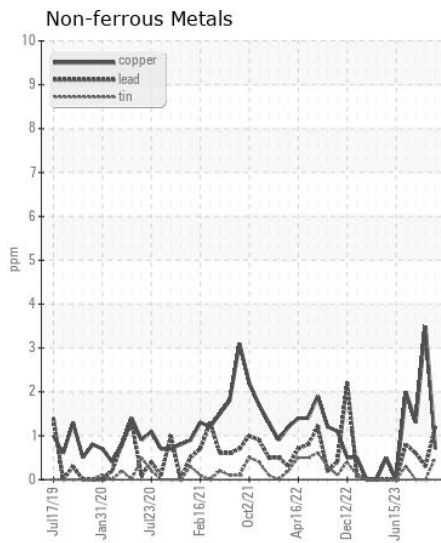
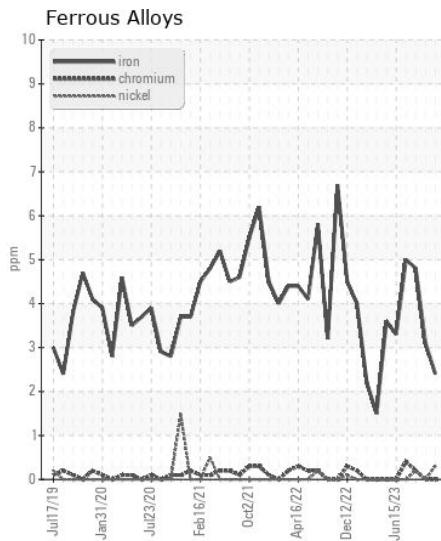
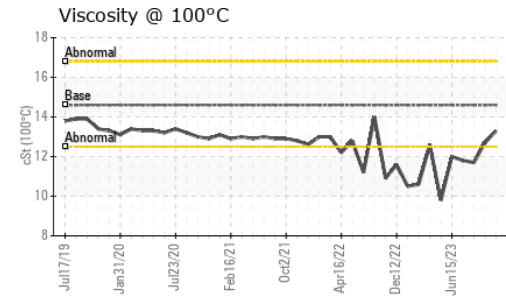
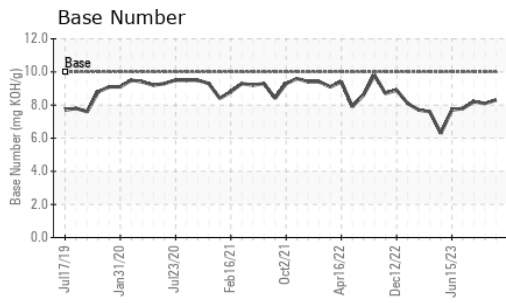
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	6	4
Potassium	ppm	ASTM D5185m	>20	4	18	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.6	7.2	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	18.9	18.0
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		2	26	0
Boron	ppm	ASTM D5185m		137	120	63
Barium	ppm	ASTM D5185m		0	0	5
Molybdenum	ppm	ASTM D5185m		2	6	21
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		380	379	449
Calcium	ppm	ASTM D5185m		1715	1714	1679
Phosphorus	ppm	ASTM D5185m	760	1072	1025	972
Zinc	ppm	ASTM D5185m	800	1206	1202	1142
Sulfur	ppm	ASTM D5185m	3000	3938	3740	3452
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	13.5	12.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.3	8.1	8.2
Visc @ 100°C	cSt	ASTM D445	14.6	13.3	12.7	▲ 11.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0879492 **Received** : 31 Jan 2024
Lab Number : 06075557 **Diagnosed** : 01 Feb 2024
Unique Number : 10857648 **Diagnostician** : Angela Borella
Test Package : CONST (Additional Tests: TBN)

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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)