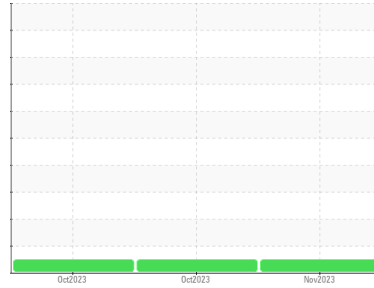




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Bernardsville**  
 Machine Id  
**ISUZU 3465**

Component  
**Diesel Engine**  
 Fluid  
**GIBRALTAR 15W/40 SUPER S-3 LX (11)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0875357</b>	WC0864898	WC0864905
Sample Date	Client Info			<b>14 Nov 2023</b>	25 Oct 2023	19 Oct 2023
Machine Age	hrs	Client Info		<b>3598</b>	3447	3405
Oil Age	hrs	Client Info		<b>0</b>	0	3405
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>15</b>	13	23
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>4</b>	4	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>25</b>	32	23
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	66	<b>62</b>	63	66
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1000	<b>677</b>	668	491
Calcium	ppm	ASTM D5185m	1050	<b>1379</b>	1399	1511
Phosphorus	ppm	ASTM D5185m	1150	<b>1032</b>	976	930
Zinc	ppm	ASTM D5185m	1270	<b>1238</b>	1183	1139
Sulfur	ppm	ASTM D5185m		<b>3323</b>	3241	3168

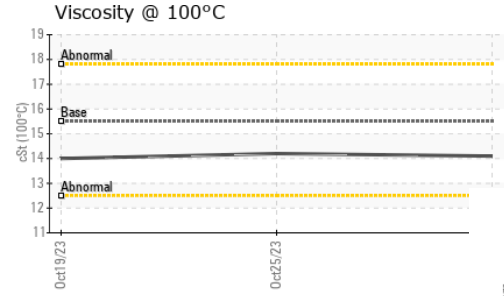
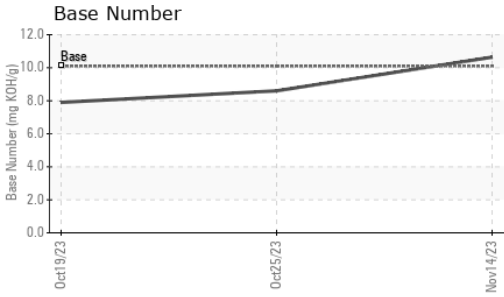
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	7
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	3
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.5	1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	7.0	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	18.5	19.5

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	13.8	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>10.64</b>	8.6	7.9



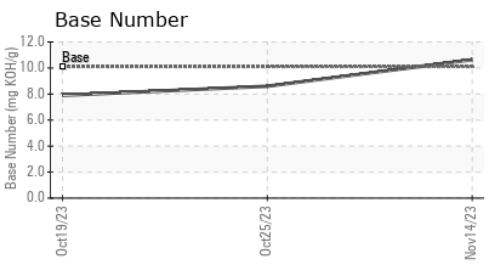
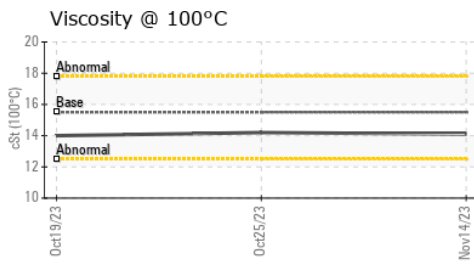
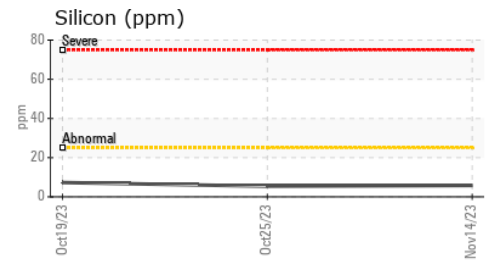
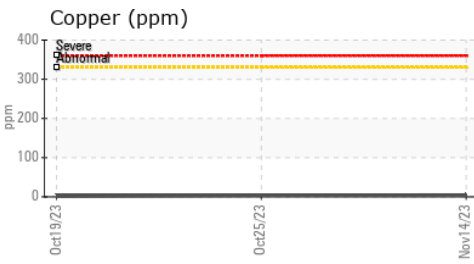
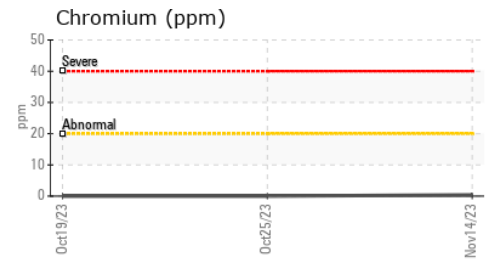
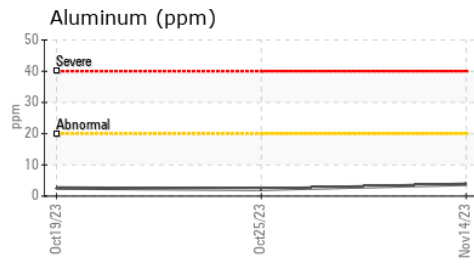
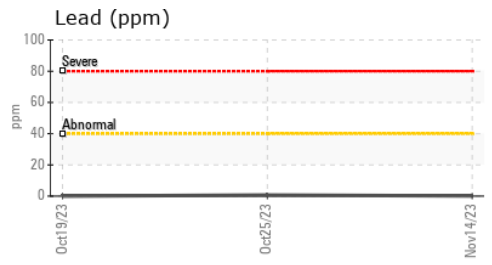
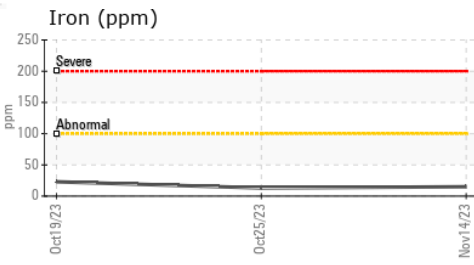
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	14.1	14.2

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0875357 **Received** : 21 Nov 2023  
**Lab Number** : 06014181 **Diagnosed** : 22 Nov 2023  
**Unique Number** : 10753325 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**INTERSTATE WASTE-BERNARDSVILLE**  
 33 OLD QUARRY ROAD  
 BERNARDSVILLE, NJ  
 US 07924  
 Contact: Pablo Chardon  
 PChardon@interstatewaste.com  
 T:  
 F:

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)