



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**INGERSOLL RAND SD 100D ROLLER 54228 (S/N 147753)**

Component  
**Diesel Engine**

Fluid  
**CHEVRON 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0913779</b>	WC0822775	WC0671554
Sample Date		Client Info		<b>09 Apr 2024</b>	16 Aug 2023	11 May 2022
Machine Age	hrs	Client Info		<b>4393</b>	0	2685
Oil Age	hrs	Client Info		<b>0</b>	4393	434
Filter Age	hrs	Client Info		<b>0</b>	250	434
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>18</b>	55	85
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	4	10
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	5	21
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	10
Copper	ppm	ASTM D5185m	>330	<b>0</b>	2	4
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

There is no indication of any contamination in the oil.

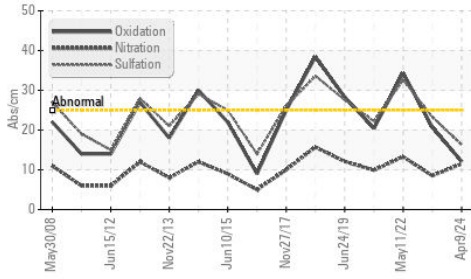
Silicon	ppm	ASTM D5185m	>25	<b>12</b>	15	35
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.5</b>	8.5	13.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.3</b>	23.3	32.6
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	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

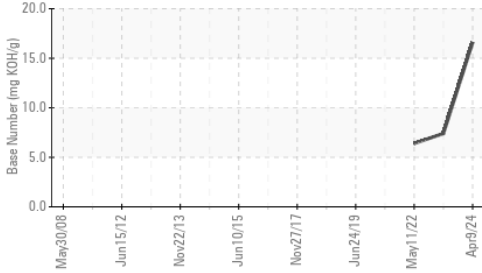
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>50	<b>2</b>	2	4
Boron	ppm	ASTM D5185m		<b>278</b>	270	264
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>5</b>	96	117
Manganese	ppm	ASTM D5185m		<b>0</b>	1	2
Magnesium	ppm	ASTM D5185m		<b>57</b>	496	636
Calcium	ppm	ASTM D5185m		<b>4347</b>	1855	1950
Phosphorus	ppm	ASTM D5185m		<b>1085</b>	1151	1125
Zinc	ppm	ASTM D5185m		<b>1177</b>	1452	1486
Sulfur	ppm	ASTM D5185m		<b>3255</b>	4024	2755
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.1</b>	20.7	34.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>16.6</b>	7.4	6.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.6</b>	14.9	15.7

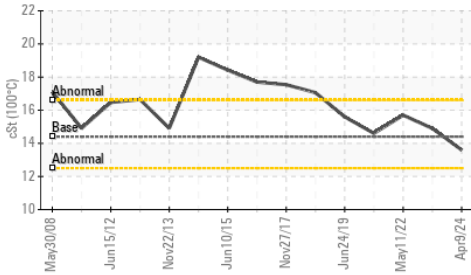
**FT-IR (Direct Trend)**



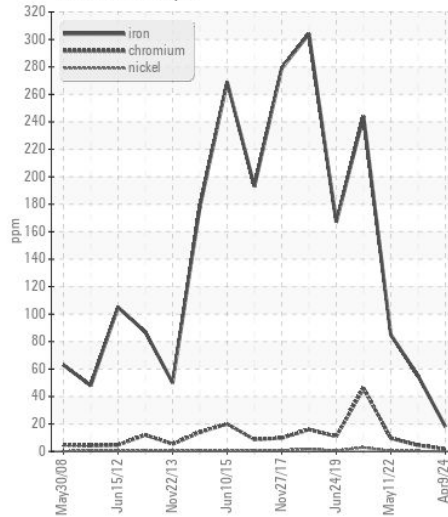
**Base Number**



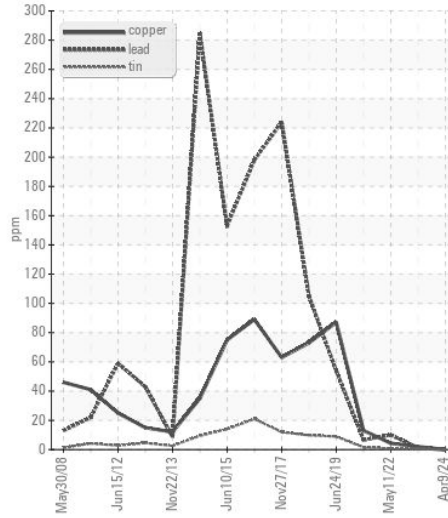
**Viscosity @ 100°C**



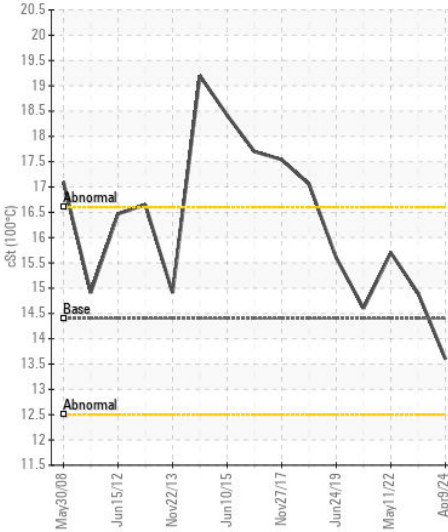
**Ferrous Alloys**



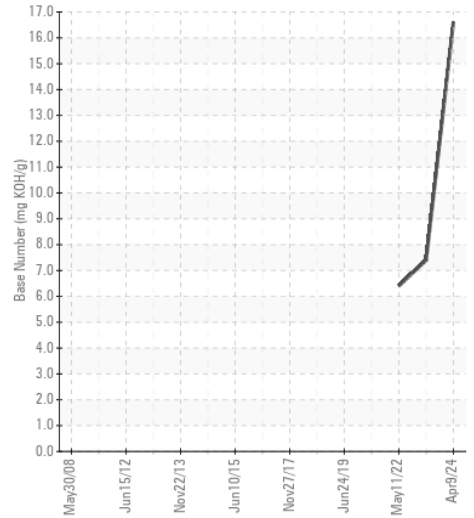
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0913779 **Received** : 15 Apr 2024  
**Lab Number** : 06148228 **Tested** : 16 Apr 2024  
**Unique Number** : 10978306 **Diagnosed** : 16 Apr 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

**SULLIVAN EASTERN INC**  
 2860 C SLATER RD  
 MORRISVILLE, NC  
 US 27560

Contact: SCOTT SULLIVAN  
 ssullivan@sullivaneastern.com

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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