



CHALMERS
Lubrication Service
(704) 660-LUBE(5823)

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INGERSOLL RAND SD77DX 2001 (S/N 192709)

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CL0005086	CL0004577	CLMC145748
Sample Date		Client Info		10 Mar 2024	07 Aug 2023	03 Aug 2018
Machine Age	hrs	Client Info		265	265	1903
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	4	6	23
Chromium	ppm	ASTM D5185m	>20	<1	<1	3
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	4	2	4
Lead	ppm	ASTM D5185m	>40	<1	2	4
Copper	ppm	ASTM D5185m	>330	<1	3	9
Tin	ppm	ASTM D5185m	>15	<1	1	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

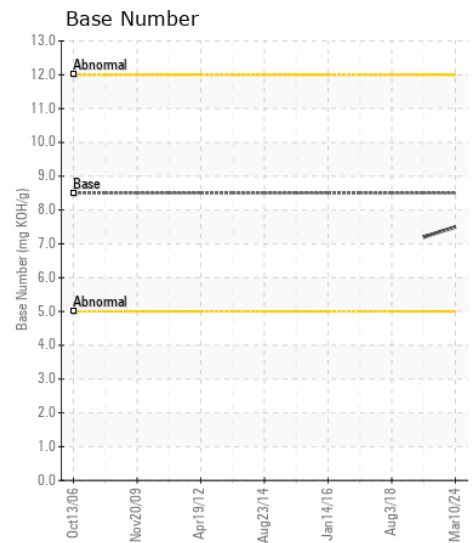
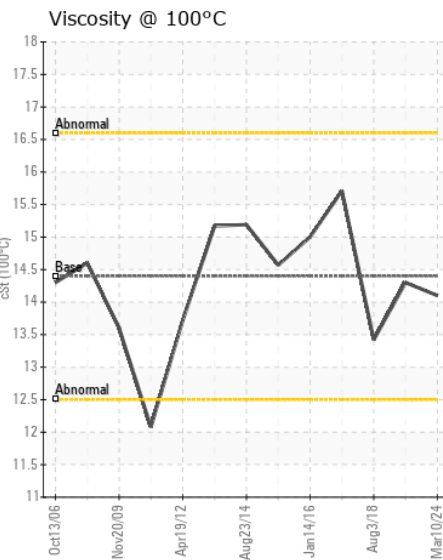
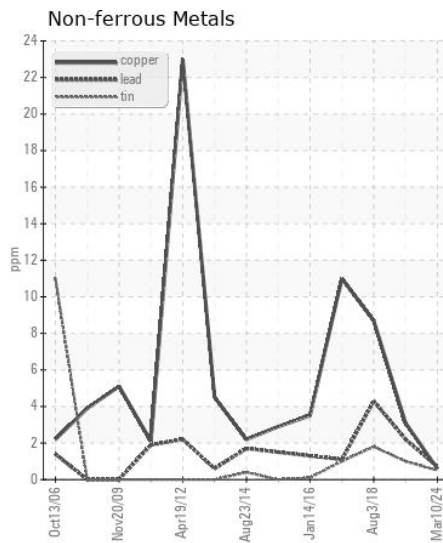
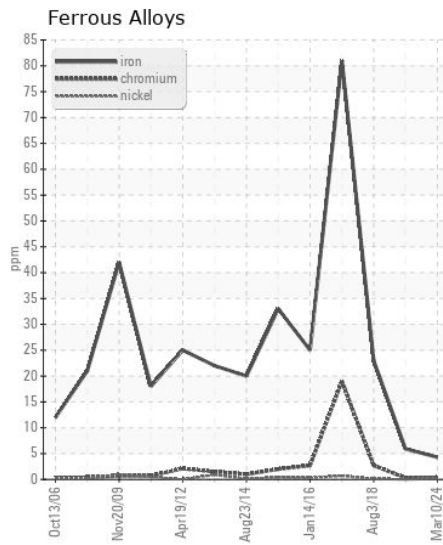
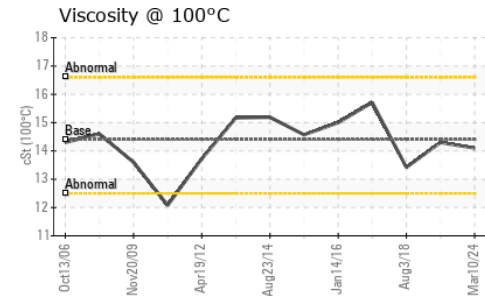
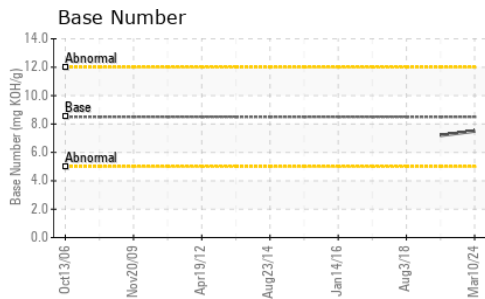
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	5	▲ 61
Potassium	ppm	ASTM D5185m	>20	1	2	5
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.0	9.3	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.5	18.7	20.3
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 suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	3	10
Boron	ppm	ASTM D5185m	250	65	64	121
Barium	ppm	ASTM D5185m	10	0	1	3
Molybdenum	ppm	ASTM D5185m	100	87	92	56
Manganese	ppm	ASTM D5185m		0	<1	4
Magnesium	ppm	ASTM D5185m	450	65	108	364
Calcium	ppm	ASTM D5185m	3000	2231	2190	1652
Phosphorus	ppm	ASTM D5185m	1150	1085	1067	920
Zinc	ppm	ASTM D5185m	1350	1239	1310	1058
Sulfur	ppm	ASTM D5185m	4250	4078	4405	4164
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	15.2	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.5	7.2	---
Visc @ 100°C	cSt	ASTM D445	14.4	14.1	14.3	13.42



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : CL0005086 **Received** : 18 Mar 2024
Lab Number : 06121427 **Tested** : 19 Mar 2024
Unique Number : 10930260 **Diagnosed** : 19 Mar 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

PURCELL CONSTRUCTION
 3100 HIGH RIDGE RD
 CHARLOTTE, NC
 US 28270
 Contact: BEN MILKE
 ben@purcellconst.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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F: