

GLYCOL



Machine Id
2009 SPARTAN 28015 (S313)
Component
Rear Diesel Engine
Fluid
CASTROL HYPURON 15W40 (36 LTR)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a moderate concentration of glycol present in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0085032	PC0085024	PC0075263
Sample Date	Client Info			05 May 2024	05 Feb 2024	15 May 2023
Machine Age	kms	Client Info		270724	0	664490
Oil Age	kms	Client Info		0	2	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG

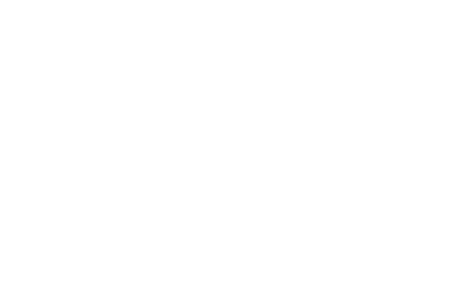
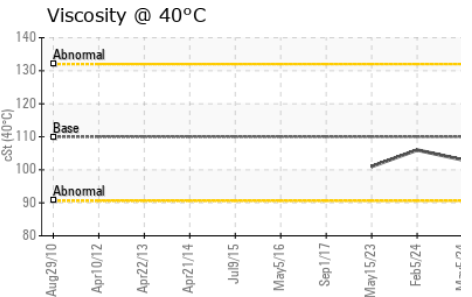
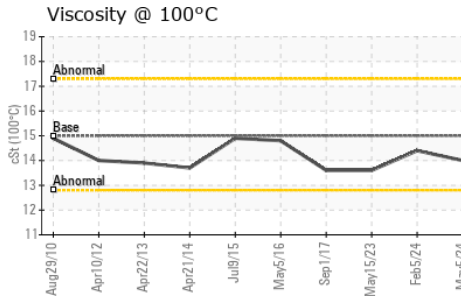
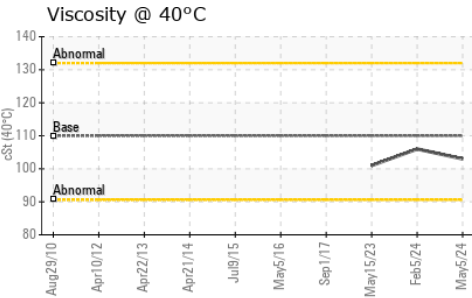
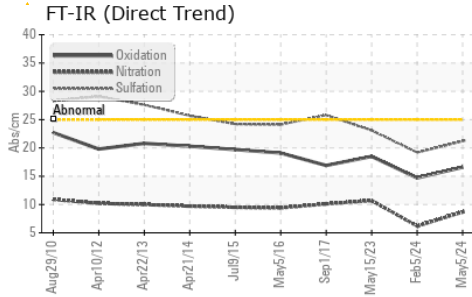
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	15	6	22
Chromium	ppm	ASTM D5185(m)	>4	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	1	2	2
Lead	ppm	ASTM D5185(m)	>50	2	2	5
Copper	ppm	ASTM D5185(m)	>55	<1	<1	3
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		3	2	12
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		64	58	68
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)		1014	961	1054
Calcium	ppm	ASTM D5185(m)		1115	1032	1078
Phosphorus	ppm	ASTM D5185(m)		1056	1030	1089
Zinc	ppm	ASTM D5185(m)		1267	1154	1280
Sulfur	ppm	ASTM D5185(m)		2669	2794	2710
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	3	2	9
Sodium	ppm	ASTM D5185(m)		37	15	82
Potassium	ppm	ASTM D5185(m)	>20	6	6	8
Glycol	%	ASTM D7922*		0.056	0.0	0.028

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.7	0.2	1.2
Nitration	Abs/cm	ASTM D7624*	>20	8.7	6.2	10.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.2	19.2	23.1

OIL ANALYSIS REPORT

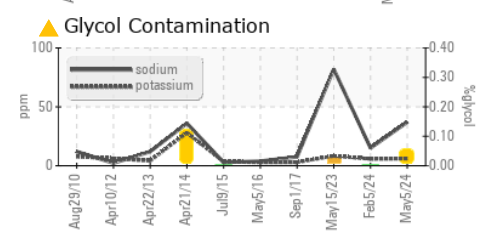
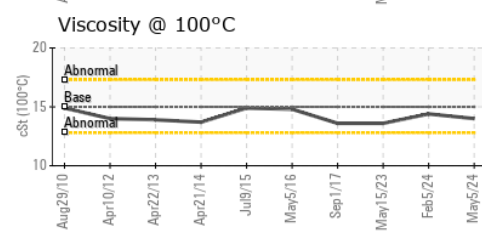
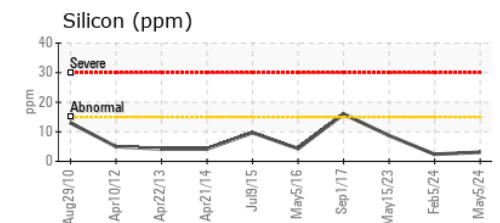
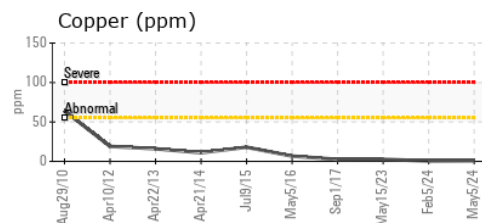
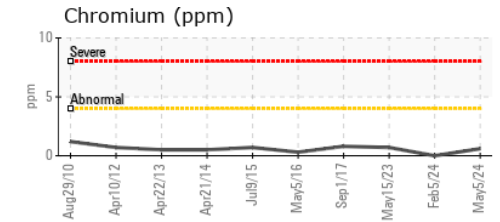
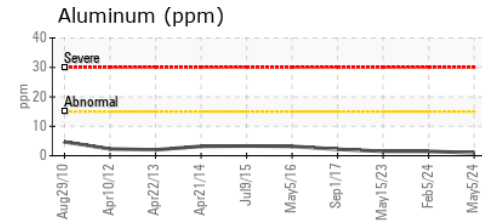
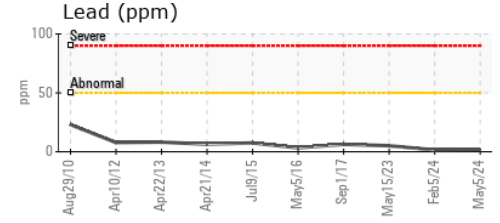
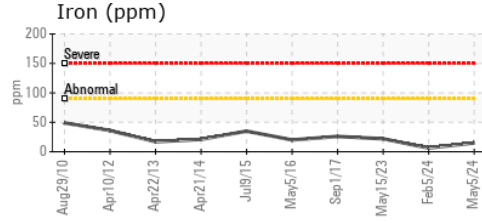


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	16.6	14.7	18.5

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	110	103	106	101
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	14.0	14.4	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	140	137	139	134

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0085032 **Received** : 18 Jun 2024
Lab Number : **02642527** **Tested** : 19 Jun 2024
Unique Number : 5800066 **Diagnosed** : 19 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol, KV40, VI, Visual)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.