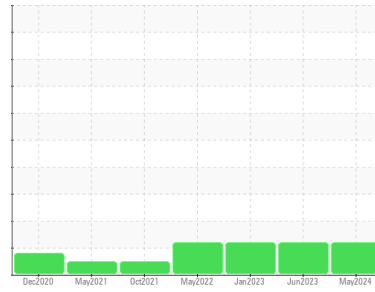


OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
KEMP QUARRIES / PRYOR STONE [70970]
 Machine Id
WP006
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: PM performed. Engine oil sample taken. Engine oil, and all filters changed.)

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PCA0108864	PCA0083996	PCA0070359
Sample Date	Client Info			30 May 2024	13 Jun 2023	27 Jan 2023
Machine Age	hrs	Client Info		5118	4679	4375
Oil Age	hrs	Client Info		439	304	319
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	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 D5185m	>200	41	39	31
Chromium	ppm	ASTM D5185m	>20	3	<1	2
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	3	7	<1
Lead	ppm	ASTM D5185m	>30	8	5	5
Copper	ppm	ASTM D5185m	>30	7	3	3
Tin	ppm	ASTM D5185m	>15	6	4	3
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

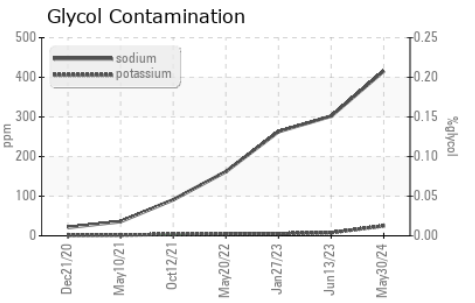
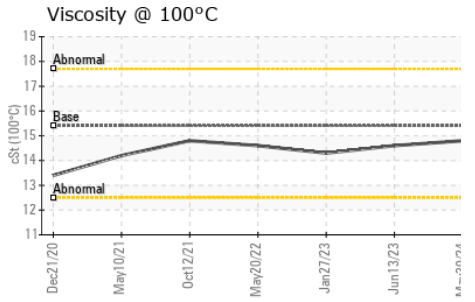
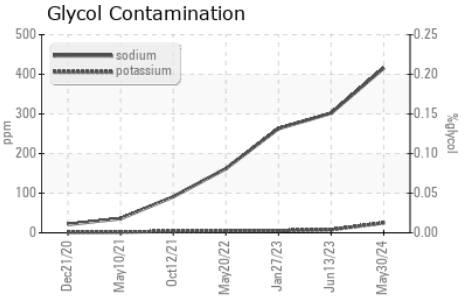
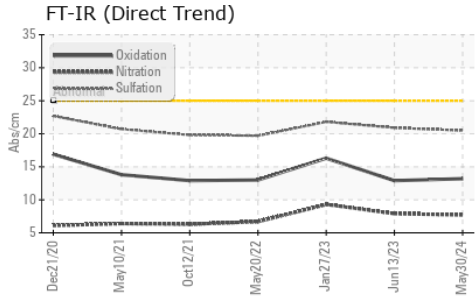
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	16	11	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	72	75	73
Manganese	ppm	ASTM D5185m	0	1	0	<1
Magnesium	ppm	ASTM D5185m	1010	1024	1079	911
Calcium	ppm	ASTM D5185m	1070	1152	1239	1080
Phosphorus	ppm	ASTM D5185m	1150	1099	1141	979
Zinc	ppm	ASTM D5185m	1270	1331	1445	1183
Sulfur	ppm	ASTM D5185m	2060	3368	4188	3551

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	20	11	7
Sodium	ppm	ASTM D5185m		▲ 416	▲ 302	▲ 263
Potassium	ppm	ASTM D5185m	>20	25	8	5
Glycol	%	*ASTM D2982		NEG	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	2.4	2.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.7	7.9	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	20.9	21.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	12.9	16.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.1	10.4	9.8

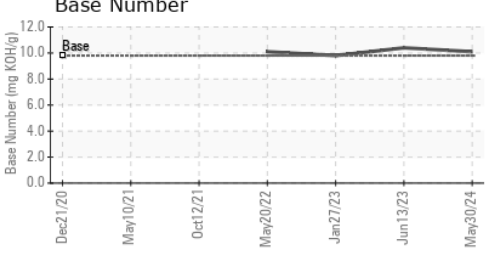
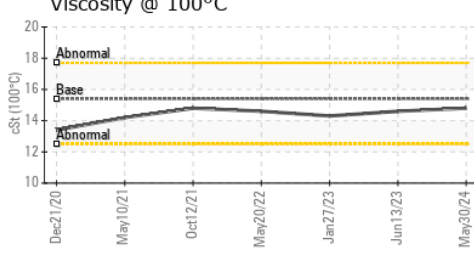
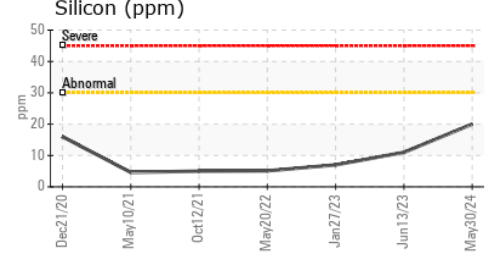
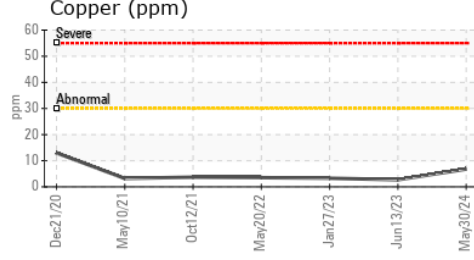
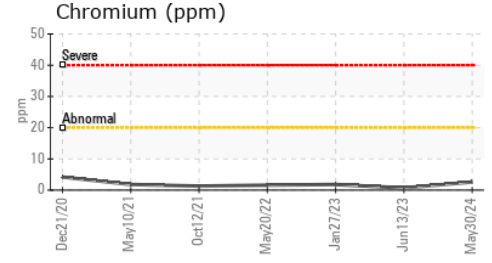
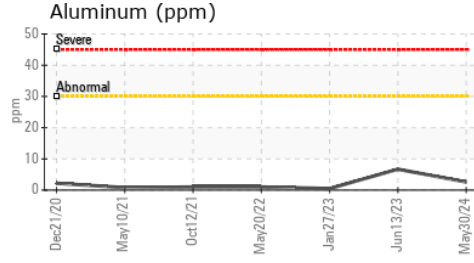
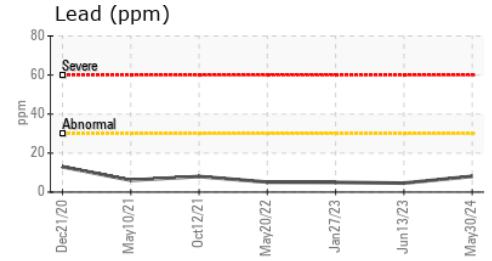
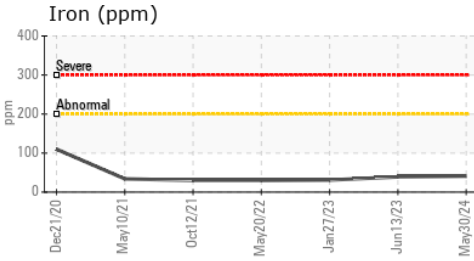
OIL ANALYSIS REPORT



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	15.4	14.8	14.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0108864 **Received** : 08 Jul 2024
Lab Number : 06229710 **Tested** : 09 Jul 2024
Unique Number : 11113203 **Diagnosed** : 09 Jul 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

Kemp Quarries - Pryor Stone - Pryor
 1050 E 520 Rd
 Pryor, OK
 US 74361
 Contact: PRYOR NOTIFICATIONS
 pryor@pryorstone.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)