



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE
ATTENTION
NORMAL

Area

WCLSNC

Machine Id

QC230801DE

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0877771	WC0877770	WC0877769
Sample Date		Client Info		16 Nov 2023	15 Nov 2023	14 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				---	NORMAL	NORMAL

WEAR

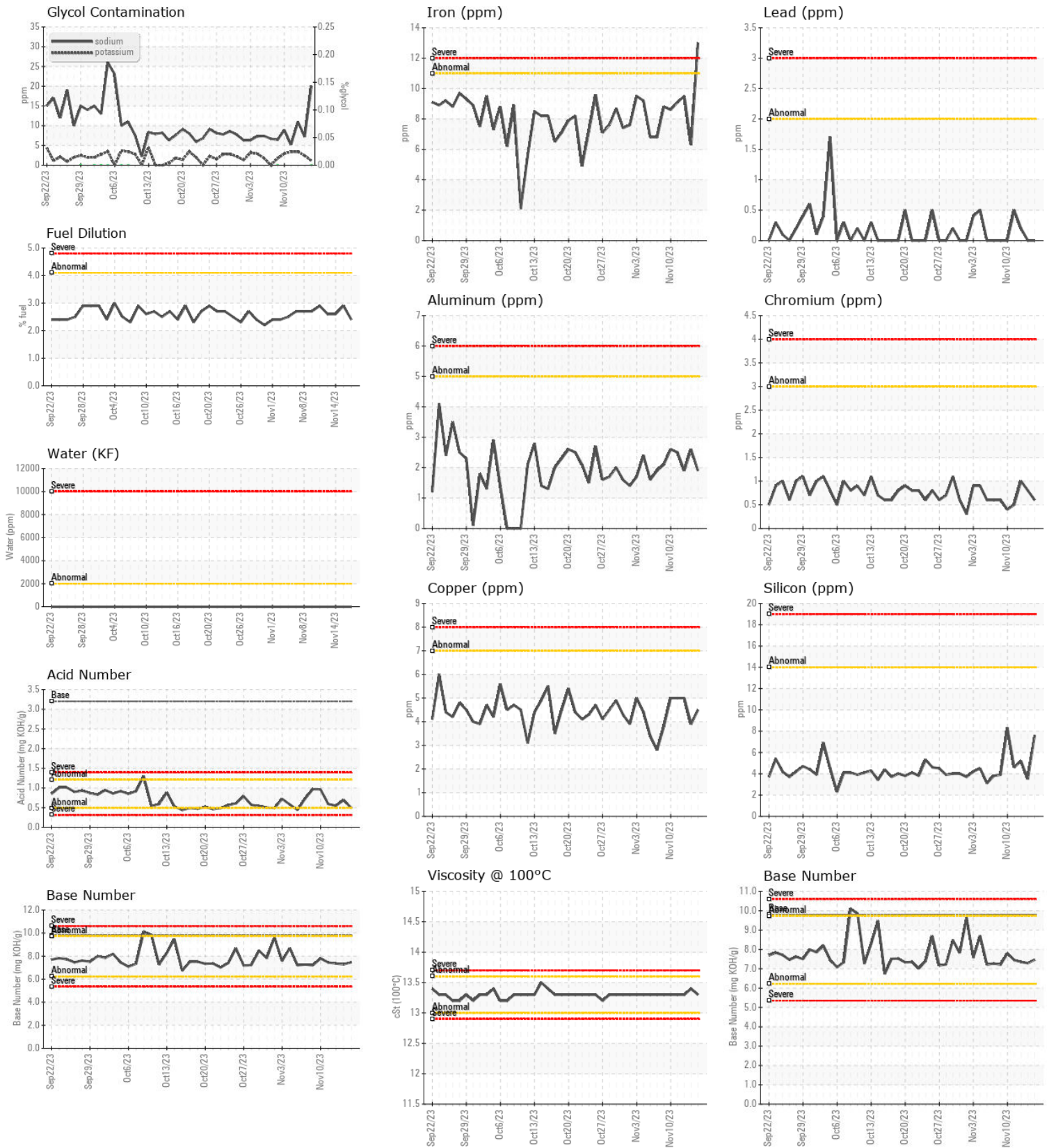
Iron	ppm	ASTM D5185m	>11	13	6	10
Chromium	ppm	ASTM D5185m	>3	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>5	2	3	2
Lead	ppm	ASTM D5185m	>2	0	0	<1
Copper	ppm	ASTM D5185m	>7	4	4	5
Tin	ppm	ASTM D5185m	>2	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Silicon	ppm	ASTM D5185m	>14	8	4	5
Potassium	ppm	ASTM D5185m	>20	1	2	3
Fuel	%	ASTM D3524	>4.1	2.4	2.9	2.6
Water	%	ASTM D6304	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.0	NEG	NEG
Soot %	%	*ASTM D7844	>0.3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>10.8	10.6	10.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>20.8	20.6	20.2	20.4
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

Sodium	ppm	ASTM D5185m	>13	20	7	11
Boron	ppm	ASTM D5185m	0	6	7	6
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	51	50	51
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	555	563	527
Calcium	ppm	ASTM D5185m	1070	1516	1475	1461
Phosphorus	ppm	ASTM D5185m	1150	646	726	684
Zinc	ppm	ASTM D5185m	1270	980	980	929
Sulfur	ppm	ASTM D5185m	2060	2859	2464	2533
Oxidation	Abs/.1mm	*ASTM D7414	>17.9	17.9	17.2	17.6
Acid Number (AN)	mg KOH/g	ASTM D8045	3.2	0.49	0.69	0.55
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.47	7.29	7.35
Visc @ 40°C	cSt	ASTM D445	113.9	97.6	97.2	97.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.4	13.3
Viscosity Index (VI)	Scale	ASTM D2270	142	135	137	135



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0877771 **Received** : 16 Nov 2023
Lab Number : 06009770 **Diagnosed** : 16 Jan 2024
Unique Number : 10748914 **Diagnostician** : System
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, KV40, PercentFuel, VI)

WEARCHECK LUBRICATION SERVICES QA ACCOUNT
 501 Madison Ave
 Cary, NC
 US 27513
 Contact: WCLS CARY NC

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)

T: (919)379-4102

F: (919)379-4050