

OIL ANALYSIS REPORT

(WXQ193) **ISUZU 10880**

Component Diesel Engine

PETRO CANADA DURON SHP 15W40 (4 GAL)

n2018 Feb2019 Oct2019 Ans/2020 Pet/2020 Feb2019 Listons Listons Answer

Sample Rating Trend



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

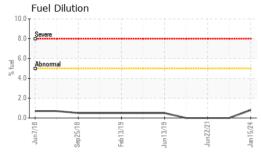
Fluid Condition

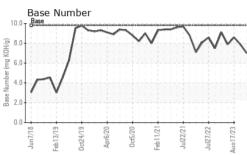
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

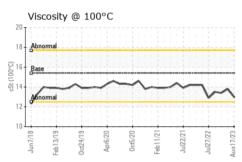
CAMPLE INFOR		m other al	limit/lease	O	bietema	biotow.0
SAMPLE INFORI	VIATION		limit/base	current	history1	history2
Sample Number		Client Info		GFL0109105	GFL0086205	GFL0086276
Sample Date		Client Info		15 Jan 2024	26 Sep 2023	17 Aug 2023
Machine Age	hrs	Client Info		16263	15758	0
Oil Age	hrs	Client Info		16263	15758	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
	C	us a the a sh	lime!t/lenene		la i a t a .m . d	la i a ta uu . O
WEAR METAL	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	8	16	10
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	1	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		ام مالم ما	limit/bass	ourrant.	h: - t 1	history2
ADDITIVES		method			nistory i	i ii Stui y Z
	ppm				history1	
Boron	ppm	ASTM D5185m	0	27	12	19
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	27 0	12	19 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	27 0 67	12 2 64	19 0 64
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	27 0 67 <1	12 2 64 <1	19 0 64 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	27 0 67 <1 769	12 2 64 <1 810	19 0 64 <1 829
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	27 0 67 <1 769 1129	12 2 64 <1 810 1040	19 0 64 <1 829 1080
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	27 0 67 <1 769 1129 952	12 2 64 <1 810 1040 929	19 0 64 <1 829 1080 922
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270	27 0 67 <1 769 1129 952 1173	12 2 64 <1 810 1040 929 1120	19 0 64 <1 829 1080 922 1120
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	27 0 67 <1 769 1129 952	12 2 64 <1 810 1040 929 1120 2821	19 0 64 <1 829 1080 922
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	27 0 67 <1 769 1129 952 1173	12 2 64 <1 810 1040 929 1120	19 0 64 <1 829 1080 922 1120 3266 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	27 0 67 <1 769 1129 952 1173 2995	12 2 64 <1 810 1040 929 1120 2821 history1	19 0 64 <1 829 1080 922 1120 3266 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	27 0 67 <1 769 1129 952 1173 2995	12 2 64 <1 810 1040 929 1120 2821 history1 4 3	19 0 64 <1 829 1080 922 1120 3266 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	27 0 67 <1 769 1129 952 1173 2995 current	12 2 64 <1 810 1040 929 1120 2821 history1	19 0 64 <1 829 1080 922 1120 3266 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	27 0 67 <1 769 1129 952 1173 2995 current 4	12 2 64 <1 810 1040 929 1120 2821 history1 4 3	19 0 64 <1 829 1080 922 1120 3266 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	27 0 67 <1 769 1129 952 1173 2995 current 4 3 2	12 2 64 <1 810 1040 929 1120 2821 history1 4 3 <1	19 0 64 <1 829 1080 922 1120 3266 history2 3 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	27 0 67 <1 769 1129 952 1173 2995 current 4 3 2 0.8	12 2 64 <1 810 1040 929 1120 2821 history1 4 3 <1 <1.0	19 0 64 <1 829 1080 922 1120 3266 history2 3 1 <1.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	27 0 67 <1 769 1129 952 1173 2995 current 4 3 2 0.8 current	12 2 64 <1 810 1040 929 1120 2821 history1 4 3 <1 <1.0 history1 1.8	19 0 64 <1 829 1080 922 1120 3266 history2 3 3 1 <1.0 history2 1.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7844	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	27 0 67 <1 769 1129 952 1173 2995 current 4 3 2 0.8 current 0.4 7.8	12 2 64 <1 810 1040 929 1120 2821 history1 4 3 <1 <1.0 history1 1.8 9.2	19 0 64 <1 829 1080 922 1120 3266 history2 3 3 1 <1.0 history2 1.2 7.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 >5 limit/base >3 >20 >3	27 0 67 <1 769 1129 952 1173 2995 current 4 3 2 0.8 current 0.4 7.8 18.0	12 2 64 <1 810 1040 929 1120 2821 history1 4 3 <1 <1.0 history1 1.8 9.2 21.2	19 0 64 <1 829 1080 922 1120 3266 history2 3 3 1 <1.0 history2 1.2 7.3 19.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5 limit/base >3 >20 >30 limit/base	27 0 67 <1 769 1129 952 1173 2995 current 4 3 2 0.8 current 0.4 7.8 18.0 current	12 2 64 <1 810 1040 929 1120 2821 history1 4 3 <1 <1.0 history1 1.8 9.2 21.2 history1	19 0 64 <1 829 1080 922 1120 3266 history2 3 3 1 <1.0 history2 1.2 7.3 19.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 >5 limit/base >3 >20 >3	27 0 67 <1 769 1129 952 1173 2995 current 4 3 2 0.8 current 0.4 7.8 18.0	12 2 64 <1 810 1040 929 1120 2821 history1 4 3 <1 <1.0 history1 1.8 9.2 21.2	19 0 64 <1 829 1080 922 1120 3266 history2 3 3 1 <1.0 history2 1.2 7.3 19.5



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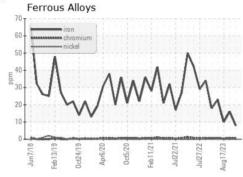


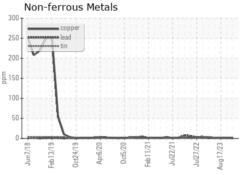


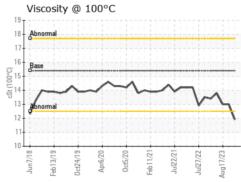
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

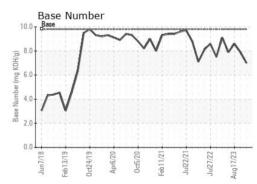
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	11.9	13.0	13.0

GRAPHS













Laboratory Sample No. Lab Number **Unique Number**

: 06065440

: GFL0109105 : 10836822

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved Diagnosed

: 19 Jan 2024 : 23 Jan 2024 Diagnostician : Wes Davis

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) 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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