

OIL ANALYSIS REPORT

Area (P1021285) Dixon Transport-Tractor [Dixon Transport-Tractor] 325A325546

Diesel Engine Fluid

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

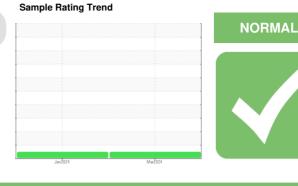
All component wear rates are normal.

Contamination

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.



SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0121191	PCA0114325	
Sample Date		Client Info		28 Mar 2024	09 Jan 2024	
Machine Age	mls	Client Info		470369	448448	
Oil Age	mls	Client Info		23137	47249	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	25	35	
Chromium	ppm	ASTM D5185m	>5	5	5	
Nickel	ppm	ASTM D5185m	>2	3	2	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>30	9	12	
Lead	ppm	ASTM D5185m	>30	0	<1	
Copper	ppm	ASTM D5185m	>150	8	7	
Tin	ppm	ASTM D5185m	>5	0	1	
Vanadium	ppm	ASTM D5185m		<1	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 2	current 4	history1 1	history2
	ppm ppm					
Boron		ASTM D5185m	2	4	1	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	4 0	1 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	4 0 61	1 0 60	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	4 0 61 <1	1 0 60 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	4 0 61 <1 1072	1 0 60 <1 945	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	4 0 61 <1 1072 1198	1 0 60 <1 945 1137	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	4 0 61 <1 1072 1198 1148	1 0 60 <1 945 1137 968	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	4 0 61 <1 1072 1198 1148 1434	1 0 60 <1 945 1137 968 1215	
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 61 <1 1072 1198 1148 1434 3789	1 0 60 <1 945 1137 968 1215 2262	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 61 <1 1072 1198 1148 1434 3789 current	1 0 60 <1 945 1137 968 1215 2262 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 61 <1 1072 1198 1148 1434 3789 current 4	1 0 60 <1 945 1137 968 1215 2262 history1 6	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	4 0 61 <1 1072 1198 1148 1434 3789 current 4 2	1 0 60 <1 945 1137 968 1215 2262 history1 6 3	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20	4 0 61 <1 1072 1198 1148 1434 3789 current 4 2 2	1 0 60 <1 945 1137 968 1215 2262 history1 6 3 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20	4 0 61 <1 1072 1198 1148 1434 3789 current 4 2 2 2	1 0 60 <1 945 1137 968 1215 2262 history1 6 3 2 2 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >20 20 Imit/base >20	4 0 61 <1 1072 1198 1148 1434 3789 <u>current</u> 4 2 2 2 <u>current</u> 0.4	1 0 60 <1 945 1137 968 1215 2262 history1 6 3 2 2 history1 0.7	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >20 <i>imit/base</i> >20	4 0 61 <1 1072 1198 1148 1434 3789 current 4 2 2 2 current 0.4 8.3	1 0 60 <1 945 1137 968 1215 2262 history1 6 3 2 2 history1 0.7 9.5	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 2600 20 20 20 20 20 3 20 20 3 20 3	4 0 61 <1 1072 1198 1148 1434 3789 current 4 2 2 2 current 0.4 8.3 19.5 current	1 0 60 <1 945 1137 968 1215 2262 history1 6 3 2 history1 0.7 9.5 22.2 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3 >20	4 0 61 <1 1072 1198 1148 1434 3789 <u>current</u> 4 2 2 2 <u>current</u> 0.4 8.3 19.5	1 0 60 <1 945 1137 968 1215 2262 history1 6 3 2 2 history1 0.7 9.5 22.2	 history2 history2 history2 history2



3

30

2!

Abs/cm

10

8.0

(B/HOJ Bul)

unber (n 3.0

ag 2.0

0.0

15 14

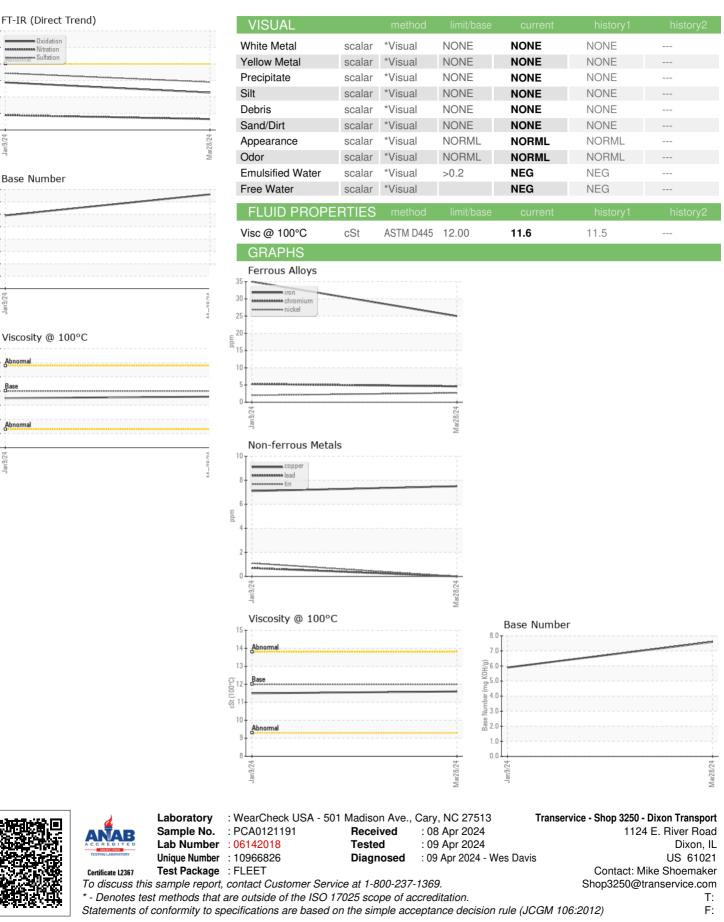
13 cSt (100°C)

B

Jan9/24

lan9/74

OIL ANALYSIS REPORT



Report Id: TSV3250 [WUSCAR] 06142018 (Generated: 04/09/2024 15:41:26) Rev: 1

Submitted By: Mike Shoemaker

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