

OIL ANALYSIS REPORT

Sample Rating Trend

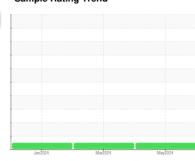
NORMAL



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

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

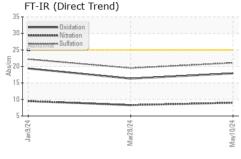
Fluid Condition

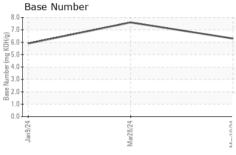
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

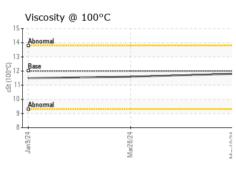
Sample Number Client Info PCA0121229 PCA0121191 PCA011432 Sample Date Client Info 10 May 2024 28 Mar 2024 09 Jan 2024 38 Jan 2024 38 Jan 2024 39 Jan 2024 38							
Client Info	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 482083 470369 448448 47249	Sample Number		Client Info		PCA0121229	PCA0121191	PCA0114325
Machine Age mls Client Info 482083 470369 448448 Oil Age mls Client Info 11714 23137 47249 Oil Changed Client Info Changed Not Changd Changed Sample Status method Imititase current Mistory1 history2 Fuel WC Method 5 <1.0	Sample Date		Client Info		10 May 2024	28 Mar 2024	09 Jan 2024
Oil Age mls Client Info 11714 23137 47249 Oil Changed Sample Status Client Info Changed Changed Not Changed Not Changed Not Changed North Changed North North Changed North Nort	Machine Age	mls	Client Info		-	470369	448448
Oil Changed Sample Status Client Info Changed NORMAL Not Changed NORMAL Changed NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0		mls	Client Info		11714	23137	47249
NORMAL NORMAL NORMAL CONTAMINATION method fimit/base current history1 history2	-		Client Info		Changed	Not Changd	Changed
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water WC Method >0.2 NEG NEG NEG Glycol WC Method Imit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 28 25 35 Chromium ppm ASTM D5185m >5 4 5 5 Nickel ppm ASTM D5185m >2 1 3 2 Silver ppm ASTM D5185m >30 0 0 0 Silver ppm ASTM D5185m >30 0 0 0 Aluminum ppm ASTM D5185m >30 0 0 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Irron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >5 4 5 5 Nickel ppm ASTM D5185m >2 1 3 2 Titanium ppm ASTM D5185m >2 1 <1	WEAR METAL	.S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	28	25	35
Titanium	Chromium	ppm	ASTM D5185m	>5	4	5	5
Silver	Nickel	ppm	ASTM D5185m	>2	1	3	2
Aluminum ppm ASTM D5185m >30 11 9 12 Lead ppm ASTM D5185m >30 0 0 <1	Titanium	ppm	ASTM D5185m		<1	<1	<1
Lead	Silver	ppm	ASTM D5185m	>3	0	0	0
Copper ppm ASTM D5185m >150 9 8 7 Tin ppm ASTM D5185m >5 <1	Aluminum	ppm	ASTM D5185m	>30	11	9	12
Tin ppm ASTM D5185m >5 <1 0 1 Vanadium ppm ASTM D5185m 0 0 <1 <1 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 4 4 4 1 Barium ppm ASTM D5185m 50 54 61 60 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 950 925 1072 945 Calcium ppm ASTM D5185m 1050 1007 1198 1137 Phosphorus ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 1050 1217 1434 1215 Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m >20 6 9.9 INFRA-RED method limit/base current history1 history2 Soot % "ASTM D7844 >3 0.6 0.4 0.7 Nitration Abs/cm "ASTM D7845 >20 9.0 8.3 9.5 Sulfation Abs/cm "ASTM D7845 >30 21.1 19.5 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm "ASTM D7415 >30 21.1 19.5 22.2	Lead	ppm	ASTM D5185m	>30	0	0	<1
Vanadium ppm ASTM D5185m 0 <1 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 4 4 1 Barium ppm ASTM D5185m 0 <1 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 <1 <1 <1 <1 Magnesium ppm ASTM D5185m 950 925 1072 945 Calcium ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 180 1217 1434 1215 Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 </td <td>Copper</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>150</td> <th>9</th> <td>8</td> <td>7</td>	Copper	ppm	ASTM D5185m	>150	9	8	7
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 4 4 1 Barium ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>5	<1	0	1
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 4 4 1 Barium ppm ASTM D5185m 0 <1	Vanadium	ppm	ASTM D5185m		0	<1	<1
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 <1 0 0 Molybdenum ppm ASTM D5185m 50 54 61 60 Manganese ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 54 61 60 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 950 925 1072 945 Calcium ppm ASTM D5185m 1050 1007 1198 1137 Phosphorus ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m >20 <1 2 2 INFRA-RED method limit/base <th< td=""><td>Boron</td><td>ppm</td><td>ASTM D5185m</td><td>2</td><th>4</th><td>4</td><td>1</td></th<>	Boron	ppm	ASTM D5185m	2	4	4	1
Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 950 925 1072 945 Calcium ppm ASTM D5185m 1050 1007 1198 1137 Phosphorus ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 1180 1217 1434 1215 Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m 3 2 3 Potassium ppm ASTM D5185m >20 <1	Barium	ppm	ASTM D5185m	0	<1	0	0
Magnesium ppm ASTM D5185m 950 925 1072 945 Calcium ppm ASTM D5185m 1050 1007 1198 1137 Phosphorus ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 1180 1217 1434 1215 Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m >20 <1 2 2 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 0.6 0.4 0.7 Nitration Abs/cm *ASTM D7415 >30 21.1 19.5 22.2 FLUID DEGRADATION *ASTM D7414 >25	Molybdenum	ppm	ASTM D5185m	50	54	61	60
Calcium ppm ASTM D5185m 1050 1007 1198 1137 Phosphorus ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 1180 1217 1434 1215 Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m >20 <1	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus ppm ASTM D5185m 995 989 1148 968 Zinc ppm ASTM D5185m 1180 1217 1434 1215 Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m 3 2 3 Potassium ppm ASTM D5185m >20 <1	Magnesium	ppm	ASTM D5185m	950	925	1072	945
Zinc ppm ASTM D5185m 1180 1217 1434 1215 Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m 3 2 3 Potassium ppm ASTM D5185m >20 <1	Calcium	ppm	ASTM D5185m	1050	1007	1198	1137
Sulfur ppm ASTM D5185m 2600 2815 3789 2262 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m 3 2 3 Potassium ppm ASTM D5185m >20 <1	Phosphorus	ppm	ASTM D5185m	995	989	1148	968
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m 3 2 3 Potassium ppm ASTM D5185m >20 <1	Zinc	ppm	ASTM D5185m	1180	1217	1434	1215
Silicon ppm ASTM D5185m >20 6 4 6 Sodium ppm ASTM D5185m 3 2 3 Potassium ppm ASTM D5185m >20 <1 2 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 0.4 0.7 Nitration Abs/cm *ASTM D7624 >20 9.0 8.3 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.5 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.9 16.3 19.4	Sulfur	ppm	ASTM D5185m	2600	2815	3789	2262
Sodium ppm ASTM D5185m 3 2 3 Potassium ppm ASTM D5185m >20 <1	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 2 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 0.4 0.7 Nitration Abs/cm *ASTM D7624 >20 9.0 8.3 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.5 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.9 16.3 19.4	Silicon	ppm	ASTM D5185m	>20	6		
INFRA-RED	Sodium	ppm	ASTM D5185m		3	2	3
Soot % % *ASTM D7844 >3 0.6 0.4 0.7 Nitration Abs/cm *ASTM D7624 >20 9.0 8.3 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.5 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.9 16.3 19.4	Potassium	ppm	ASTM D5185m	>20	<1	2	2
Nitration Abs/cm *ASTM D7624 >20 9.0 8.3 9.5 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.5 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.9 16.3 19.4	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.5 22.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.9 16.3 19.4	Soot %	%	*ASTM D7844	>3	0.6	0.4	0.7
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.9 16.3 19.4	Nitration	Abs/cm	*ASTM D7624	>20	9.0	8.3	9.5
Oxidation Abs/.1mm *ASTM D7414 >25 17.9 16.3 19.4	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	19.5	22.2
	FLUID DEGRAI	NOITAC	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 6.3 7.6 5.9	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	16.3	19.4
	Base Number (BN)	mg KOH/g	ASTM D2896		6.3	7.6	5.9

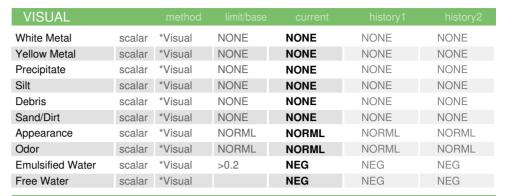


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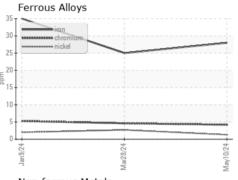


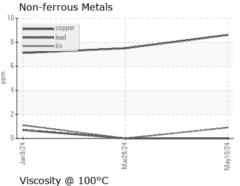


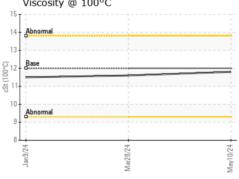


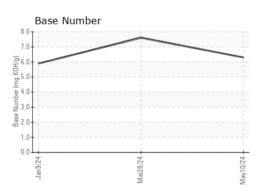
FLUID PROP	ERHES	method				history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.8	11.6	11.5

GRAPHS













Certificate 12367

Laboratory Sample No.

: PCA0121229 Lab Number : 06196226 Unique Number : 11058349 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 31 May 2024 **Tested**

: 03 Jun 2024 Diagnosed : 03 Jun 2024 - Wes Davis

1124 E. River Road

US 61021 Contact: Mike Shoemaker Shop3250@transervice.com

Transervice - Shop 3250 - Dixon Transport

To discuss this sample report, contact Customer Service at 1-800-237-1369. st - 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)

Dixon, IL

T:

F: