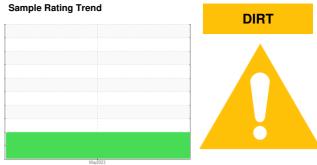


# **OIL ANALYSIS REPORT**

# [053045] 151 (S/N PD871677)

**Diesel Engine** 

**CHEVRON 15W40 (--- LTR)** 



### **DIAGNOSIS**

#### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

#### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

				May2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0044145		
Sample Date		Client Info		09 May 2023		
Machine Age	mls	Client Info		28266		
Oil Age	mls	Client Info		28266		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	135		
Chromium	ppm	ASTM D5185m	>20	6		
Nickel	ppm	ASTM D5185m	>4	1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	1		
Aluminum	ppm	ASTM D5185m	>20	152		
Lead	ppm	ASTM D5185m	>40	7		
Copper	ppm	ASTM D5185m	>330	27		
Tin	ppm	ASTM D5185m	>15	5		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		39		
	PPIII	7101111 20100111				
Barium	ppm	ASTM D5185m		0		
				0 26		
Molybdenum	ppm	ASTM D5185m				
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		26		
Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		26 7		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		26 7 757		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		26 7 757 1401		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		26 7 757 1401 696		
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	limit/base	26 7 757 1401 696 825		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		26 7 757 1401 696 825 2886		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		26 7 757 1401 696 825 2886	     history1	    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m MEthod ASTM D5185m	>25	26 7 757 1401 696 825 2886 current  50	     history1	    history2
Silicon Sodium	ppm	ASTM D5185m	>25 >50 >20	26 7 757 1401 696 825 2886  current  50 8	    history1	    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m	>25 >50 >20	26 7 757 1401 696 825 2886  current  50 8 461	    history1	   history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	>25 >50 >20 >5	26 7 757 1401 696 825 2886  current  50 8 461 0.5	history1	history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	>25 >50 >20 >5 limit/base >3	26 7 757 1401 696 825 2886  current  50 8 461 0.5  current	history1 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m	>25 >50 >20 >5 limit/base >3	26 7 757 1401 696 825 2886  current  50 8 461 0.5  current 0.8	history1 history1 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D3524  method  *ASTM D7844  *ASTM D7624  *ASTM D7624	>25 >50 >20 >5 limit/base >3 >20	26 7 757 1401 696 825 2886  current  50 8 461 0.5  current  0.8 11.1	history1 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D3524  method  *ASTM D7844  *ASTM D7624  *ASTM D7624	>25 >50 >20 >5 limit/base >3 >20 >30	26 7 757 1401 696 825 2886	history1 history1	history2 history2



## **OIL ANALYSIS REPORT**





Sample No. Lab Number

**Unique Number** 

: PCA0044145 : 05858165 : 10492630

: 26 May 2023 Received Diagnosed : 30 May 2023

Diagnostician : Don Baldridge Test Package : MOB 2 (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. 1767 GRIFFIN SHOULS RD

DADEVILLE, AL US 36853 Contact: RON INGRAM

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T: (256)825-6878 F:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)