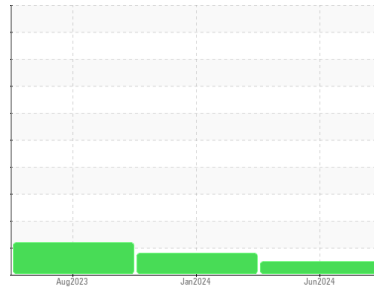




# OIL ANALYSIS REPORT

Area  
**SCHTRUCK**  
 Machine Id  
**6398 [SCHTRUCK]**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**

Sample Rating Trend



**NORMAL**



## 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 INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>SBP0007699</b>  | SBP0006319  | SBP0005095  |
| Sample Date        | Client Info |             |            | <b>21 Jun 2024</b> | 18 Jan 2024 | 30 Aug 2023 |
| Machine Age        | hrs         | Client Info |            | <b>111164</b>      | 74362       | 36758       |
| Oil Age            | hrs         | Client Info |            | <b>36802</b>       | 37604       | 36758       |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | Changed     |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

| CONTAMINATION |           | method | limit/base     | current | history1 | history2 |
|---------------|-----------|--------|----------------|---------|----------|----------|
| Fuel          | WC Method | >3.0   | <b>&lt;1.0</b> | <1.0    | 0.2      |          |
| Water         | WC Method | >0.2   | <b>NEG</b>     | NEG     | NEG      |          |
| Glycol        | WC Method |        | <b>NEG</b>     | NEG     | NEG      |          |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >200       | <b>33</b>    | 32       | 58       |
| Chromium    | ppm | ASTM D5185m | >20        | <b>3</b>     | 3        | 3        |
| Nickel      | ppm | ASTM D5185m | >2         | <b>0</b>     | 0        | <1       |
| Titanium    | ppm | ASTM D5185m | >2         | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>     | 0        | <1       |
| Aluminum    | ppm | ASTM D5185m | >30        | <b>12</b>    | 29       | 87       |
| Lead        | ppm | ASTM D5185m | >30        | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >30        | <b>32</b>    | ▲ 40     | ▲ 226    |
| Tin         | ppm | ASTM D5185m | >15        | <b>0</b>     | 1        | 4        |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | 5        | 35       |
| Barium     | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | <1       |
| Molybdenum | ppm | ASTM D5185m | 60         | <b>61</b>    | 56       | 41       |
| Manganese  | ppm | ASTM D5185m | 0          | <b>1</b>     | 2        | 5        |
| Magnesium  | ppm | ASTM D5185m | 1010       | <b>1022</b>  | 870      | 553      |
| Calcium    | ppm | ASTM D5185m | 1070       | <b>1226</b>  | 1122     | 1849     |
| Phosphorus | ppm | ASTM D5185m | 1150       | <b>1000</b>  | 826      | 745      |
| Zinc       | ppm | ASTM D5185m | 1270       | <b>1317</b>  | 1157     | 933      |
| Sulfur     | ppm | ASTM D5185m | 2060       | <b>2676</b>  | 2003     | 2187     |

| CONTAMINANTS |     | method      | limit/base | current   | history1 | history2 |
|--------------|-----|-------------|------------|-----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >30        | <b>6</b>  | 6        | 8        |
| Sodium       | ppm | ASTM D5185m |            | <b>3</b>  | 3        | 7        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>27</b> | 71       | 214      |

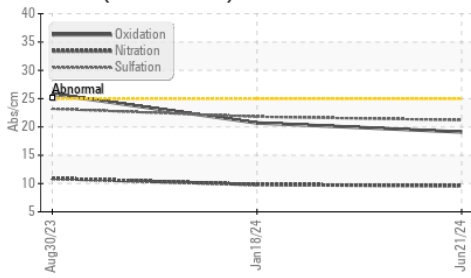
| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.6</b>  | 0.6      | 0.5      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>9.6</b>  | 9.8      | 10.9     |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>21.2</b> | 21.8     | 23.2     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>19.1</b> | 20.7     | 25.8     |
| Base Number (BN)  | mg KOH/g | ASTM D2896  | 9.8        | <b>6.9</b>  | 6.2      | 6.7      |

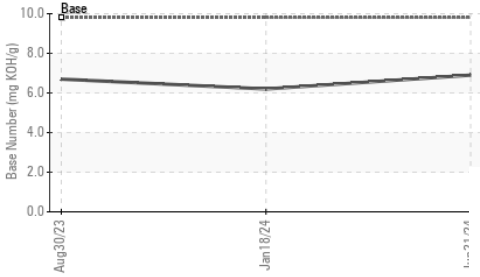


# OIL ANALYSIS REPORT

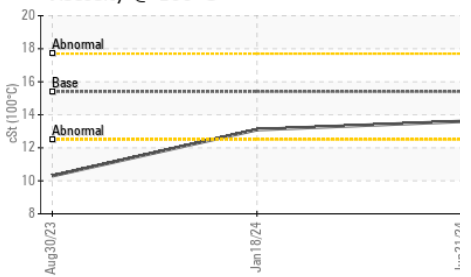
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

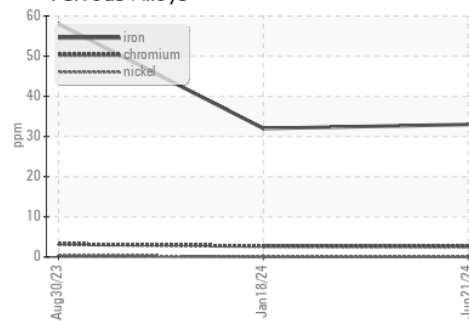


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

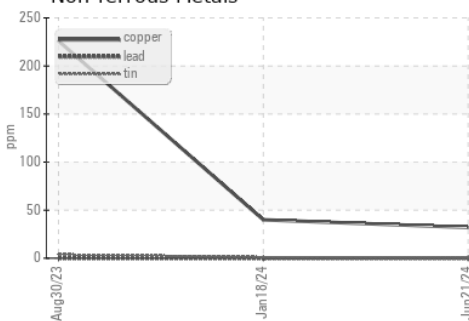
| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |      |
|------------------|--------|------------|---------|-------------|----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 15.4    | <b>13.6</b> | 13.1     | 10.3 |

## GRAPHS

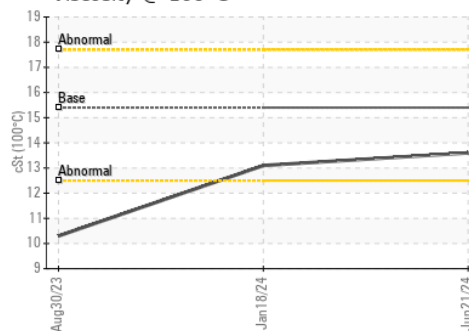
Ferrous Alloys



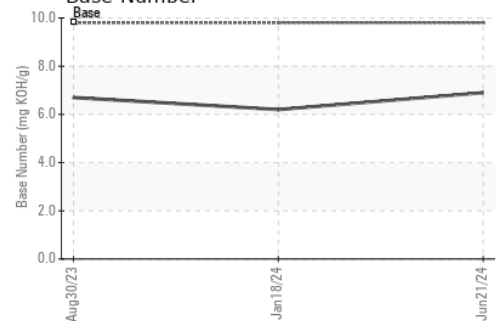
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0007699  
**Lab Number** : 06219169  
**Unique Number** : 11097366  
**Test Package** : FLEET

**Received** : 24 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 26 Jun 2024 - Jonathan Hester

**SCHMIDT TRANSPORTATION - 605449**

108 E Bay Road  
 Plattsmouth, NE  
 US 68048

Contact: NICK DOTY  
 doty@liquidtrucking.com  
 T: (402)949-9398

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)