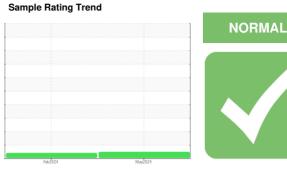


# **OIL ANALYSIS REPORT**

EG - SKID STEER 53.176L [EG - SKID STEER]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the

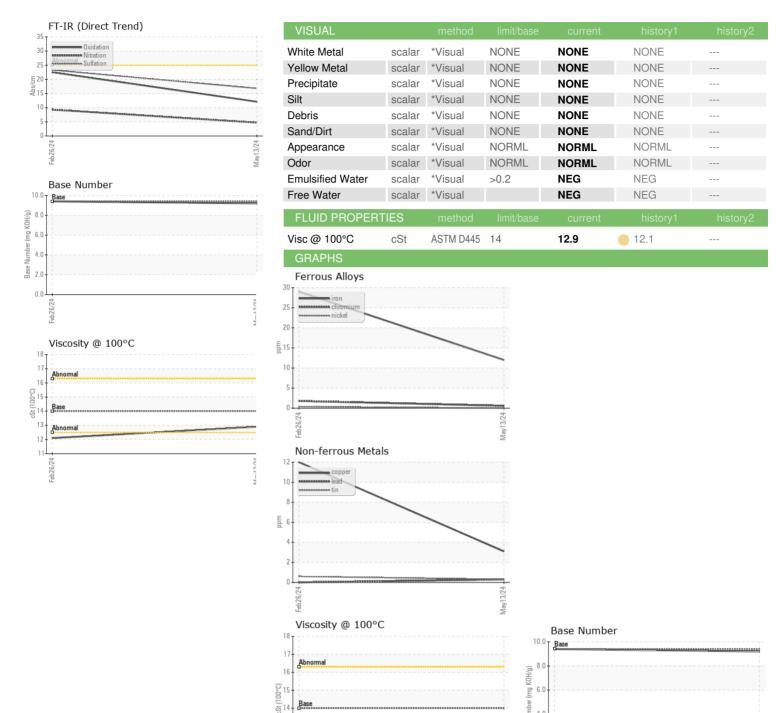
### **Fluid Condition**

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

| SAMPLE INFORMATION   method   limit/base   current   history1   history2   | L)               |          |             | Feb2024    | May2024     |             |          |
|--|------------------|----------|-------------|------------|-------------|-------------|----------|
| Client Info  | SAMPLE INFOR     | MATION   | method      | limit/base | current     | history1    | history2 |
| Sample Date   Client Info   693  | Sample Number    |          | Client Info |            | WC0857493   | WC0834108   |          |
| Machine Age   hrs  |                  |          | Client Info |            | 13 May 2024 | 26 Feb 2024 |          |
| Contamped   Client Info   Changed   Changed  |                  | hrs      | Client Info |            |             | 400         |          |
| CONTAMINATION   method   mill/base   current   history1   history2   | Oil Age          | hrs      | Client Info |            | 400         | 400         |          |
| CONTAMINATION   method   mill/base   current   history1   history2   | •                |          | Client Info |            | Changed     | Changed     |          |
| Fuel   | •                |          |             |            | NORMAL      | ATTENTION   |          |
| Water Glycol         WC Method WC Method         >0.2         NEG NEG NEG  | CONTAMINATIO     | N        | method      | limit/base | current     | history1    | history2 |
| WEAR METALS  | Fuel             |          | WC Method   | >5         | <1.0        | 0.6         |          |
| WEAR METALS  | Water            |          | WC Method   | >0.2       | NEG         | NEG         |          |
| Control   Cont | Glycol           |          | WC Method   |            | NEG         | NEG         |          |
| Chromium   ppm   ASTM D5185m   >20   <1   2  | WEAR METALS      |          | method      | limit/base | current     | history1    | history2 |
| Nickel   | Iron             | ppm      | ASTM D5185m | >100       | 12          | 29          |          |
| Titanium   | Chromium         | ppm      | ASTM D5185m | >20        | <1          | 2           |          |
| Silver   | Nickel           | ppm      | ASTM D5185m | >4         | 0           | <1          |          |
| Aluminum   | Titanium         | ppm      | ASTM D5185m |            | <1          | <1          |          |
| Lead   | Silver           | ppm      | ASTM D5185m | >3         | <1          | 0           |          |
| Copper   | Aluminum         | ppm      | ASTM D5185m | >20        | 3           | 4           |          |
| Tin  | Lead             | ppm      | ASTM D5185m | >40        | <1          | 0           |          |
| Vanadium         ppm         ASTM D5185m         <1         0            Cadmium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         46         38            Barium         ppm         ASTM D5185m         0         0         2            Molybdenum         ppm         ASTM D5185m         0         43         43            Manganese         ppm         ASTM D5185m         0         499         547            Magnesium         ppm         ASTM D5185m         0         499         547            Calcium         ppm         ASTM D5185m         1718         1878            Phosphorus         ppm         ASTM D5185m         812         886            Zinc         ppm         ASTM D5185m         2569         3247            CONTAMINANTS         method         limit/base         current         history1         history2           Sodium  | Copper           | ppm      | ASTM D5185m | >330       | 3           | 12          |          |
| Cadmium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         46         38            Barium         ppm         ASTM D5185m         0         0         2            Molybdenum         ppm         ASTM D5185m         0         43         43            Manganese         ppm         ASTM D5185m         0         499         547            Magnesium         ppm         ASTM D5185m         0         499         547            Calcium         ppm         ASTM D5185m         1718         1878            Phosphorus         ppm         ASTM D5185m         812         886            Zinc         ppm         ASTM D5185m         931         1093            Sulfur         ppm         ASTM D5185m         2569         3247            CONTAMINANTS         method         limit/base         current         history1         history2           Sodium <td>Tin</td> <td>ppm</td> <td>ASTM D5185m</td> <td>&gt;15</td> <th>&lt;1</th> <td>&lt;1</td> <td></td>   | Tin              | ppm      | ASTM D5185m | >15        | <1          | <1          |          |
| ADDITIVES  | Vanadium         | ppm      | ASTM D5185m |            | <1          | 0           |          |
| Boron   ppm   ASTM D5185m   0   46   38  | Cadmium          | ppm      | ASTM D5185m |            | 0           | 0           |          |
| Barium   | ADDITIVES        |          | method      | limit/base | current     | history1    | history2 |
| Molybdenum         ppm         ASTM D5185m         0         43         43            Manganese         ppm         ASTM D5185m         <1   | Boron            | ppm      | ASTM D5185m | 0          | 46          | 38          |          |
| Manganese         ppm         ASTM D5185m         <1         2            Magnesium         ppm         ASTM D5185m         0         499         547            Calcium         ppm         ASTM D5185m         1718         1878            Phosphorus         ppm         ASTM D5185m         812         886            Zinc         ppm         ASTM D5185m         931         1093            Sulfur         ppm         ASTM D5185m         2569         3247            CONTAMINANTS         method         limit/base         current         history1         history2           Scilicon         ppm         ASTM D5185m         >25         7         12            Scodium         ppm         ASTM D5185m         >20         2         2            Potassium         ppm         ASTM D5185m         >20         2         2            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         4.7         9.3            Sul   | Barium           | ppm      | ASTM D5185m | 0          | 0           | 2           |          |
| Magnesium         ppm         ASTM D5185m         0         499         547            Calcium         ppm         ASTM D5185m         1718         1878            Phosphorus         ppm         ASTM D5185m         812         886            Zinc         ppm         ASTM D5185m         931         1093            Sulfur         ppm         ASTM D5185m         2569         3247            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         7         12            Sodium         ppm         ASTM D5185m         3         5            Potassium         ppm         ASTM D5185m         >20         2         2            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         4.7         9.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         16.8         23.3  | Molybdenum       | ppm      | ASTM D5185m | 0          | 43          | 43          |          |
| Calcium         ppm         ASTM D5185m         1718         1878            Phosphorus         ppm         ASTM D5185m         812         886            Zinc         ppm         ASTM D5185m         931         1093            Sulfur         ppm         ASTM D5185m         2569         3247            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         7         12            Sodium         ppm         ASTM D5185m         3         5            Potassium         ppm         ASTM D5185m         >20         2         2            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0         0.2            Nitration         Abs/:mm         *ASTM D7415         >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2  | Manganese        | ppm      | ASTM D5185m |            | <1          | 2           |          |
| Phosphorus   | Magnesium        | ppm      | ASTM D5185m | 0          | 499         | 547         |          |
| Sulfur   ppm   ASTM D5185m   931   1093       Sulfur   ppm   ASTM D5185m   2569   3247       CONTAMINANTS   method   limit/base   current   history1   history2     Silicon   ppm   ASTM D5185m   >25   7   12       Sodium   ppm   ASTM D5185m   3   5       Potassium   ppm   ASTM D5185m   >20   2   2       INFRA-RED   method   limit/base   current   history1   history2     Soot %   *ASTM D7844   >3   0   0.2       Nitration   Abs/cm   *ASTM D7624   >20   4.7   9.3       Sulfation   Abs/.1mm   *ASTM D7415   >30   16.8   23.3       FLUID DEGRADATION   method   limit/base   current   history1   history2     Oxidation   Abs/.1mm   *ASTM D7414   >25   12.1   22.5   | Calcium          | ppm      | ASTM D5185m |            | 1718        | 1878        |          |
| Sulfur         ppm         ASTM D5185m         2569         3247            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         7         12            Sodium         ppm         ASTM D5185m         3         5            Potassium         ppm         ASTM D5185m         >20         2         2            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0         0.2            Nitration         Abs/cm         *ASTM D7624         >20         4.7         9.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         22.5  | Phosphorus       | ppm      | ASTM D5185m |            | 812         | 886         |          |
| CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         7         12            Sodium         ppm         ASTM D5185m         3         5            Potassium         ppm         ASTM D5185m         >20         2         2            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0         0.2            Nitration         Abs/cm         *ASTM D7624         >20         4.7         9.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         22.5  | Zinc             | ppm      | ASTM D5185m |            | 931         | 1093        |          |
| Silicon         ppm         ASTM D5185m         >25         7         12            Sodium         ppm         ASTM D5185m         3         5            Potassium         ppm         ASTM D5185m         >20         2         2            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0         0.2            Nitration         Abs/cm         *ASTM D7624         >20         4.7         9.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         22.5   | Sulfur           | ppm      | ASTM D5185m |            | 2569        | 3247        |          |
| Sodium   ppm   ASTM D5185m   3   5       Potassium   ppm   ASTM D5185m   >20   2   2       INFRA-RED   method   limit/base   current   history1   history2     Soot %   *ASTM D7844   >3   0   0.2       Nitration   Abs/cm   *ASTM D7624   >20   4.7   9.3       Sulfation   Abs/.1mm   *ASTM D7415   >30   16.8   23.3       FLUID DEGRADATION   method   limit/base   current   history1   history2     Oxidation   Abs/.1mm   *ASTM D7414   >25   12.1   22.5  | CONTAMINANTS     | 3        | method      | limit/base | current     | history1    | history2 |
| Potassium         ppm         ASTM D5185m         >20         2         2            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0         0.2            Nitration         Abs/cm         *ASTM D7624         >20         4.7         9.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         22.5   | Silicon          | ppm      | ASTM D5185m | >25        | 7           | 12          |          |
| INFRA-RED  | Sodium           | ppm      | ASTM D5185m |            | 3           | 5           |          |
| Soot %         %         *ASTM D7844 >3         0         0.2            Nitration         Abs/cm         *ASTM D7624 >20         4.7         9.3            Sulfation         Abs/.1mm         *ASTM D7415 >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         12.1         22.5  | Potassium        | ppm      | ASTM D5185m | >20        | 2           | 2           |          |
| Nitration         Abs/cm         *ASTM D7624         >20         4.7         9.3            Sulfation         Abs/.1mm         *ASTM D7415         >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         22.5   | INFRA-RED        |          | method      | limit/base | current     | history1    | history2 |
| Sulfation         Abs/.1mm         *ASTM D7415         >30         16.8         23.3            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         12.1         22.5   | Soot %           | %        | *ASTM D7844 | >3         | 0           | 0.2         |          |
| FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 12.1 22.5  | Nitration        | Abs/cm   | *ASTM D7624 | >20        | 4.7         | 9.3         |          |
| Oxidation  | Sulfation        | Abs/.1mm | *ASTM D7415 | >30        | 16.8        | 23.3        |          |
|  | FLUID DEGRAD     | ATION    | method      | limit/base | current     | history1    | history2 |
|  | Oxidation        | Abs/.1mm | *ASTM D7414 | >25        | 12.1        | 22.5        |          |
|  | Base Number (BN) |          |             |            | 9.2         |             |          |



## **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No. Lab Number : 06185460

: WC0857493 Unique Number : 11036786

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 May 2024

**Tested** : 22 May 2024 Diagnosed : 22 May 2024 - Wes Davis Test Package : CONST ( Additional Tests: TBN )

0.0

SHERWOOD CONSTRUCTION CO INC 3219 WEST MAY ST WICHITA, KS US 67213 Contact: BILL ORCUTT

Submitted By: GARRETT ADAMS

william.orcutt@wildcat.net

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

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

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T:

F: