

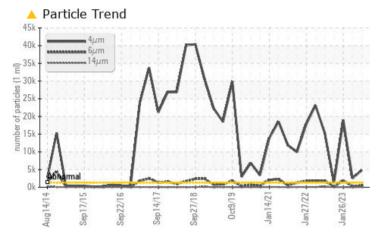
### **PROBLEM SUMMARY**

# PM312/105 - DRY SORTER (S/N 0238-33160-00210-04801)

Component Hydraulic System Fluid

MOBIL HYDRAULIC OIL AW 68 (--- GAL)

### COMPONENT CONDITION SUMMARY



### RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

| PROBLEMATIC TEST RESULTS |              |           |              |                  |               |  |  |
|--------------------------|--------------|-----------|--------------|------------------|---------------|--|--|
| Sample Status            |              |           | ABNORMAL     | ABNORMAL         | ABNORMAL      |  |  |
| Particles >4µm           | ASTM D7647   | >1300     | <u> </u>     | <b>2</b> 544     | <b>1</b> 8993 |  |  |
| Particles >6µm           | ASTM D7647   | >320      | <b>6</b> 502 | 252              | 🔺 1959        |  |  |
| Oil Cleanliness          | ISO 4406 (c) | >17/15/12 | <u> </u>     | <b>1</b> 9/15/10 | <u> </u>      |  |  |

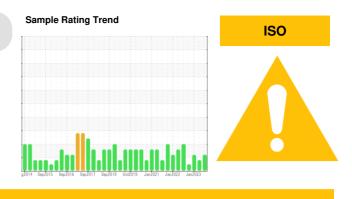
Customer Id: FLUMAR Sample No.: FC0000553 Lab Number: 05932106 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com



| RECOMMENDED ACTIONS  |        |      |         |  |  |  |
|----------------------|--------|------|---------|--|--|--|
| Action               | Status | Date | Done By | Description  |  |  |
| Change Filter        |        |      | ?       | We recommend you service the filters on this component.  |  |  |
| Resample             |        |      | ?       | We recommend an early resample to monitor this condition.  |  |  |
| Information Required |        |      | ?       | NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. |  |  |

### HISTORICAL DIAGNOSIS



### 03 May 2023 Diag: Wes Davis

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



view report

#### 26 Jan 2023 Diag: Jonathan Hester

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

#### 03 Nov 2022 Diag: Don Baldridge



Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Report Id: FLUMAR [WUSCAR] 05932106 (Generated: 08/31/2023 01:25:30) Rev: 1



### **OIL ANALYSIS REPORT**

#### Machine Id PM312/105 - DRY SORTER (S/N 0238-33160-00210-04801) Component

Hydraulic System Fluid MOBIL HYDRAULIC OIL AW 68 (--- GAL)

### DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

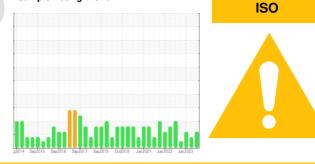
All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

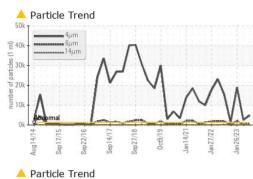


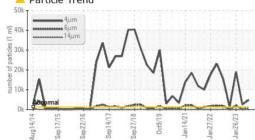
Sample Rating Trend

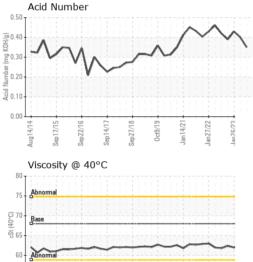
| SAMPLE INFORM                 | ATION | method       | limit/base | current             | history1      | history2      |
|-------------------------------|-------|--------------|------------|---------------------|---------------|---------------|
| Sample Number                 |       | Client Info  |            | FC0000553           | FC0000479     | FC0000278     |
| Sample Date                   |       | Client Info  |            | 15 Aug 2023         | 03 May 2023   | 26 Jan 2023   |
| Machine Age                   | hrs   | Client Info  |            | 0                   | 0             | 0             |
| Oil Age                       | hrs   | Client Info  |            | 0                   | 0             | 0             |
| Oil Changed                   |       | Client Info  |            | N/A                 | N/A           | N/A           |
| Sample Status                 |       |              |            | ABNORMAL            | ABNORMAL      | ABNORMAL      |
| WEAR METALS                   |       | method       | limit/base | current             | history1      | history2      |
| Iron                          | ppm   | ASTM D5185m  | >20        | 2                   | 2             | 2             |
| Chromium                      | ppm   | ASTM D5185m  | >20        | 0                   | 0             | 0             |
| Nickel                        | ppm   | ASTM D5185m  | >20        | 0                   | <1            | 0             |
| Titanium                      | ppm   | ASTM D5185m  |            | 0                   | 0             | 0             |
| Silver                        | ppm   | ASTM D5185m  |            | 0                   | 0             | 0             |
| Aluminum                      | ppm   | ASTM D5185m  | >20        | <1                  | 0             | 0             |
| Lead                          | ppm   | ASTM D5185m  | >20        | 0                   | <1            | 0             |
| Copper                        | ppm   | ASTM D5185m  | >20        | 3                   | 2             | 3             |
| Tin                           | ppm   | ASTM D5185m  | >20        | 0                   | <1            | 0             |
| Vanadium                      | ppm   | ASTM D5185m  |            | <1                  | 0             | 0             |
| Cadmium                       | ppm   | ASTM D5185m  |            | 0                   | 0             | 0             |
| ADDITIVES                     |       | method       | limit/base | current             | history1      | history2      |
| Boron                         | ppm   | ASTM D5185m  |            | 0                   | 0             | 0             |
| Barium                        | ppm   | ASTM D5185m  |            | 0                   | 0             | 0             |
| Molybdenum                    | ppm   | ASTM D5185m  |            | <1                  | <1            | <1            |
| Manganese                     | ppm   | ASTM D5185m  |            | <1                  | <1            | 0             |
| Magnesium                     | ppm   | ASTM D5185m  |            | 2                   | 6             | 3             |
| Calcium                       | ppm   | ASTM D5185m  |            | 62                  | 60            | 63            |
| Phosphorus                    | ppm   | ASTM D5185m  |            | 263                 | 269           | 266           |
| Zinc                          | ppm   | ASTM D5185m  |            | 264                 | 276           | 281           |
| Sulfur                        | ppm   | ASTM D5185m  |            | 4111                | 4495          | 4208          |
| CONTAMINANTS                  |       | method       | limit/base | current             | history1      | history2      |
| Silicon                       | ppm   | ASTM D5185m  | >15        | 2                   | 1             | 2             |
| Sodium                        | ppm   | ASTM D5185m  |            | 0                   | 5             | <1            |
| Potassium                     | ppm   | ASTM D5185m  | >20        | 0                   | 1             | 0             |
| FLUID CLEANLIN                | IESS  | method       | limit/base | current             | history1      | history2      |
| Particles >4µm                |       | ASTM D7647   | >1300      | <u> </u>            | <b>a</b> 2544 | <b>1</b> 8993 |
| Particles >6µm                |       | ASTM D7647   | >320       | <u> </u>            | 252           | <u> </u>      |
| Particles >14µm               |       | ASTM D7647   | >40        | 23                  | 9             | 28            |
| Particles >21µm               |       | ASTM D7647   |            | 6                   | 1             | 6             |
| Particles >38µm               |       | ASTM D7647   | >3         | 1                   | 0             | 1             |
| Particles >71µm               |       | ASTM D7647   | >3         | 0                   | 0             | 0             |
|                               |       | 100 4400 (-) | . 17/15/10 |                     |               | A 01/10/10    |
| Oil Cleanliness               |       | ISO 4406 (c) | >17/15/12  | <b>A</b> 19/16/12   | ▲ 19/15/10    | <u> </u>      |
| Oil Cleanliness FLUID DEGRADA |       | method       | limit/base | 19/16/12<br>current | history1      | history2      |



## **OIL ANALYSIS REPORT**







0ct9/19

Sep14/17

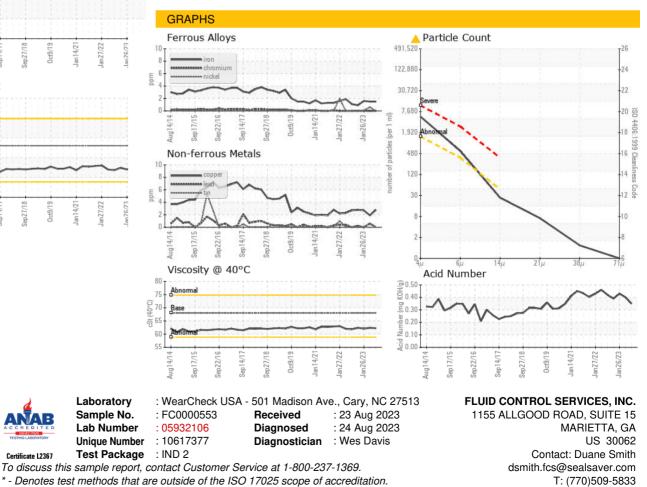
Sen27/18

50

Aug14/14 Sen17/15 en22/16

| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual   | >0.05      | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 68         | 62.2    | 62.4     | 62.0     |
| SAMPLE IMAGES    | S      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |

Bottom



\* - 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)

Certificate L2367

Contact/Location: Duane Smith - FLUMAR

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