

OIL ANALYSIS REPORT

[187088-N2STV4W] **TEST STAND 71**

Hydraulic System

SHELL TELLUS 32 (300 GAL)

Sample Rating Trend



Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

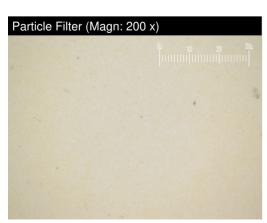
Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

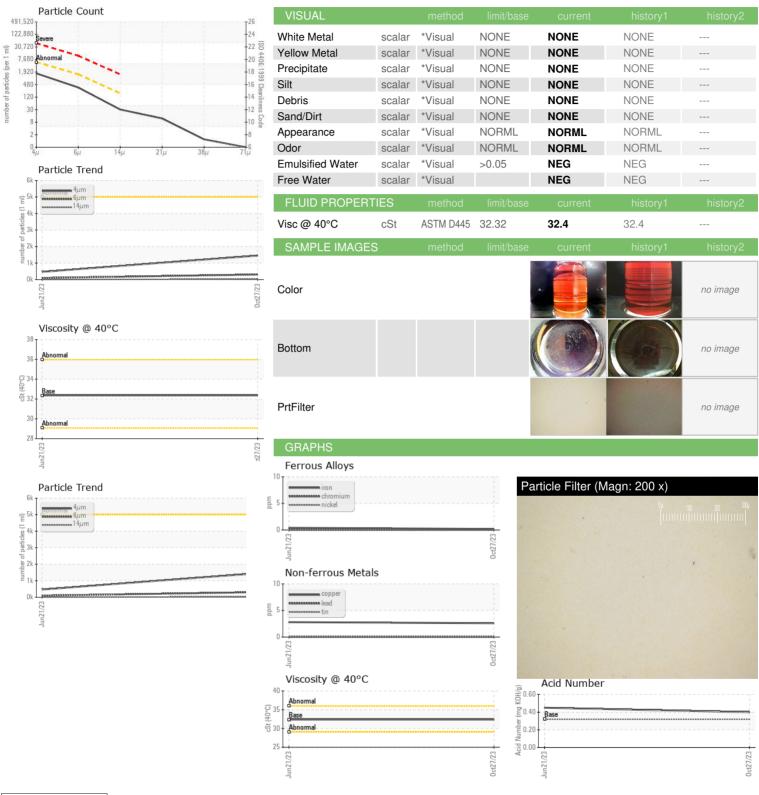
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|---|---|---|---|--|---|-------------------|
| Sample Number | | Client Info | | PH05995552 | PH05918521 | |
| Sample Date | | Client Info | | 27 Oct 2023 | 21 Jun 2023 | |
| Machine Age | hrs | Client Info | | 0 | 0 | |
| Oil Age | hrs | Client Info | | 0 | 0 | |
| Oil Changed | | Client Info | | N/A | N/A | |
| Sample Status | | | | NORMAL | NORMAL | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >20 | <1 | <1 | |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Nickel | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | |
| Silver | ppm | ASTM D5185m | | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | <1 | |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Copper | ppm | ASTM D5185m | >20 | 3 | 3 | |
| Tin | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| ADDITIVE O | | | 1:: | | المراجع المراجع | history2 |
| ADDITIVES | | method | limit/base | current | history1 | HISTOLA |
| Boron | ppm | ASTM D5185m | imit/base | 0 | 0 | |
| | ppm | | iimi/base | | | , |
| Boron | | ASTM D5185m | iimii/base | 0 | 0 | |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | IIMII/base | 0 | 0 | |
| Boron Barium Molybdenum | ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 111 | 0 0 0 | 0 0 0 | |
| Boron Barium Molybdenum Manganese | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | 0 0 0 | 0 0 0 0 <1 | |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 11 | 0 0 0 0 14 | 0 0 0 <1 6 | |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 11 35 | 0 0 0 0 14 3 | 0 0 0 <1 6 | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 11 35 259 | 0 0 0 0 14 3 263 | 0 0 0 <1 6 0 267 | |
| Boron Barium 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 ASTM D5185m | 11 35 259 277 | 0 0 0 0 14 3 263 258 | 0 0 0 <1 6 0 267 240 | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | 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 | 11 35 259 277 1865 | 0 0 0 0 14 3 263 258 554 | 0 0 0 <1 6 0 267 240 648 | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 11 35 259 277 1865 limit/base | 0 0 0 0 14 3 263 258 554 | 0 0 0 <1 6 0 267 240 648 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 11 35 259 277 1865 limit/base >15 | 0 0 0 0 14 3 263 258 554 current | 0 0 0 <1 6 0 267 240 648 history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 11 35 259 277 1865 limit/base >15 | 0 0 0 0 14 3 263 258 554 current <1 | 0 0 0 <1 6 0 267 240 648 history1 <1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 111 35 259 277 1865 limit/base >15 >20 | 0 0 0 0 14 3 263 258 554 current <1 <1 | 0 0 0 <1 6 0 267 240 648 history1 <1 0 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m | 11 35 259 277 1865 limit/base >15 >20 | 0 0 0 0 14 3 263 258 554 current <1 <1 <1 | 0 0 0 <1 6 0 267 240 648 history1 <1 0 | history2 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 11 35 259 277 1865 limit/base >15 >20 limit/base >5000 | 0 0 0 0 14 3 263 258 554 current <1 <1 <1 <1 | 0 0 0 <1 6 0 267 240 648 history1 <1 0 history1 | history2 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m method ASTM D5185m | 111 35 259 277 1865 limit/base >15 >20 limit/base >5000 >1300 >160 | 0 0 0 0 14 3 263 258 554 current <1 <1 <1 current | 0 0 0 0 <1 6 0 267 240 648 history1 <1 0 history1 466 96 | history2 history2 |



| Particles >38µm | | ASTM D7647 | >10 | 1 | 0 | |
|-------------------|----------|--------------|-----------|----------|---------|----------|
| Particles >71μm | | ASTM D7647 | >3 | 0 | 0 | |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 18/15/12 | 16/14/9 | |
| FLUID DEGRADATION | | method | | | | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.32 | 0.40 | 0.45 | |
| | | | | | | |



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PH05995552

: 10723912

Received : 05995552

Diagnosed Diagnostician

: 03 Nov 2023 : Jonathan Hester

: 01 Nov 2023

Test Package : PLANT (Additional Tests: PrtFilter) 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)

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