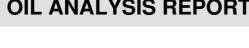


## **OIL ANALYSIS REPORT**

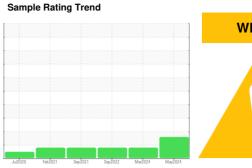




# KANSAS/44/SKIDSTEER 53.150L [KANSAS^44^SKIDSTEER]

Hydraulic System

MOBIL MOBILTRANS AST 30 (--- GAL)





## **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

The iron level is abnormal. All other component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

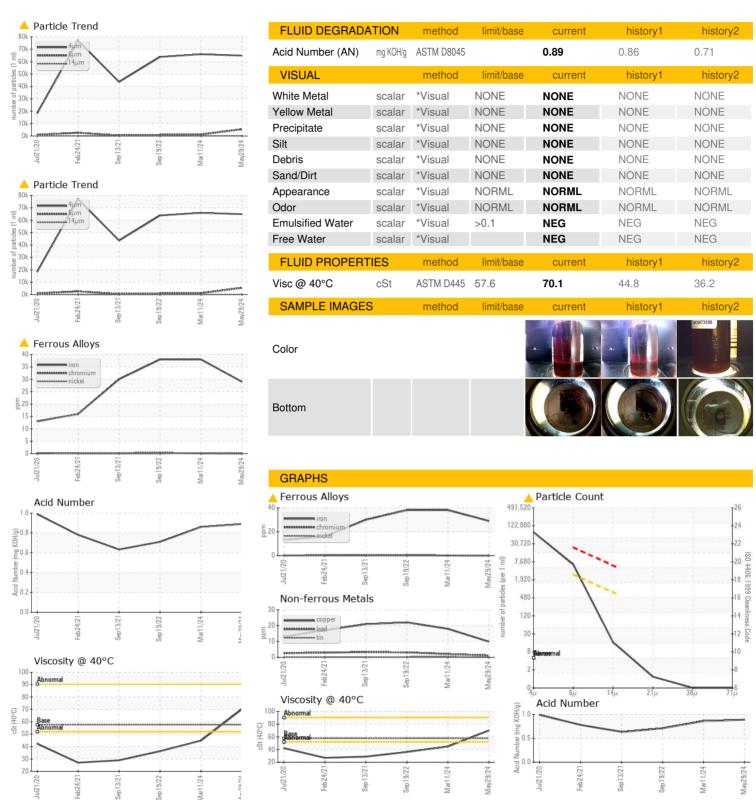
#### **Fluid Condition**

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

SAMPLE INFORMATION         method         limit/base         current         history1         history2           Sample Number         Client Info         WC0901240         WC0901303         WC0673586           Sample Date         Client Info         29 May 2024         11 Mar 2024         19 Sep 2022           Machine Age         hrs         Client Info         5372         1616         1616           Oil Changed         Client Info         Changed         Not Changd         Not Changd           COIT AMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >20         29         38         38         38           Chromium         ppm         ASTM 05185m         >10         0         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1	AOTOO ( GAL	,					
Sample Date         Client Info         29 May 2024         11 Mar 2024         19 Sep 2022           Machine Age         hrs         Client Info         5372         1616         1616           Oil Age         hrs         Client Info         5372         0         1616         Not Changd           Coll Changed Sample Status         Client Info         Changed ABNORMAL         Not Changd ABNORMAL         ABNORMAL <th>SAMPLE INFORM</th> <th>MATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age Oil Age         hrs         Client Info         5372         1616         1616           Oil Age         hrs         Client Info         5372         0         1616           Oil Changed Sample Status         Client Info         Changed ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL ABNORMAL           CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         29         38         38         38           Chromium         ppm         ASTM D5185m         >10         0         <1	Sample Number		Client Info		WC0901240	WC0901303	WC0673586
Oil Age         hrs         Client Info         5372         0         1616         Not Changed         Not Changed <t< td=""><td>Sample Date</td><td></td><td>Client Info</td><td></td><th>29 May 2024</th><td>11 Mar 2024</td><td>19 Sep 2022</td></t<>	Sample Date		Client Info		29 May 2024	11 Mar 2024	19 Sep 2022
Oil Changed Sample Status         Client Info         Changed ABNORMAL ABNORM	Machine Age	hrs	Client Info		5372	1616	1616
Sample Status         Method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         29         38         38           Chromium         ppm         ASTM D5185m         >10         0         <1	Oil Age	hrs	Client Info		5372	0	1616
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         ▲ 29         ▲ 38         ▲ 38           Chromium         ppm         ASTM D5185m         >10         0         <1	Oil Changed		Client Info		Changed	Not Changd	Not Changd
Water         WC Method         >0.1         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         Δ 29         Δ 38         Δ 38           Chromium         ppm         ASTM D5185m         10         0         <1         <1           Nickel         ppm         ASTM D5185m         >10         0         <1         <1           Silver         ppm         ASTM D5185m         >10         0         <1         <1           Aluminum         ppm         ASTM D5185m         >10         1         2         3           Copper         ppm         ASTM D5185m         >10         0         <1         <1           Tin         ppm         ASTM D5185m         0         0         0 <th< td=""><td>Sample Status</td><td></td><td></td><td></td><th>ABNORMAL</th><td>ABNORMAL</td><td>ABNORMAL</td></th<>	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         ▲ 29         ▲ 38         ▲ 38           Chromium         ppm         ASTM D5185m         >10         0         <1	CONTAMINATIO	N	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.1	NEG	NEG	NEG
Chromium         ppm         ASTM D5185m         >10         0         <1         <1           Nickel         ppm         ASTM D5185m         >10         0         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         >10         0         <1         0           Titanium         ppm         ASTM D5185m         0         0         <1	Iron	ppm	ASTM D5185m	>20	<b>29</b>	▲ 38	▲ 38
Titanium	Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>10	0	<1	0
Aluminum         ppm         ASTM D5185m         >10         3         3         3           Copper         ppm         ASTM D5185m         >10         1         2         3           Copper         ppm         ASTM D5185m         >75         10         18         22           Tin         ppm         ASTM D5185m         >10         0         <1	Titanium	ppm	ASTM D5185m		0	0	<1
Lead         ppm         ASTM D5185m         >10         1         2         3           Copper         ppm         ASTM D5185m         >75         10         18         22           Tin         ppm         ASTM D5185m         >10         0         <1         <1           Antimony         ppm         ASTM D5185m         0         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         24         10         9           Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         <1         0         1           Manganesium         ppm         ASTM D5185m         <1         <1         <1         <1           Galcium         ppm         ASTM D5185m         2042         1182         804           Phosphorus         p	Silver	ppm	ASTM D5185m		0	<1	<1
Copper         ppm         ASTM D5185m         >75         10         18         22           Tin         ppm         ASTM D5185m         >10         0         <1	Aluminum	ppm	ASTM D5185m	>10	3	3	3
Tin ppm ASTM D5185m > 10 0 <1 <1 <1 Antimony ppm ASTM D5185m	Lead	ppm	ASTM D5185m	>10	1	2	3
Antimony         ppm         ASTM D5185m	Copper	ppm	ASTM D5185m	>75	10	18	22
Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         24         10         9           Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         <1         0         1           Manganese         ppm         ASTM D5185m         <1         <1         <1         <1           Magnesium         ppm         ASTM D5185m         19         24         13            Calcium         ppm         ASTM D5185m         2042         1182         804           Phosphorus         ppm         ASTM D5185m         868         832         697           Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         >20	Tin	ppm	ASTM D5185m	>10	0	<1	<1
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         24         10         9           Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         <1	Antimony	ppm	ASTM D5185m				
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         24         10         9           Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         <1	Vanadium	ppm	ASTM D5185m		0	0	0
Boron         ppm         ASTM D5185m         24         10         9           Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         <1         0         1           Manganese         ppm         ASTM D5185m         <1         <1         <1         <1           Magnesium         ppm         ASTM D5185m         19         24         13            Calcium         ppm         ASTM D5185m         2042         1182         804           Phosphorus         ppm         ASTM D5185m         868         832         697           Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method	Cadmium	ppm	ASTM D5185m		0	0	0
Barium         ppm         ASTM D5185m         0         0         3           Molybdenum         ppm         ASTM D5185m         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         <1         0         1           Manganese         ppm         ASTM D5185m         <1         <1         <1           Magnesium         ppm         ASTM D5185m         19         24         13           Calcium         ppm         ASTM D5185m         2042         1182         804           Phosphorus         ppm         ASTM D5185m         868         832         697           Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         >20         1         2         3         1           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >6µm	Boron	ppm	ASTM D5185m		24	10	9
Manganese         ppm         ASTM D5185m         <1         <1         <1         <1           Magnesium         ppm         ASTM D5185m         19         24         13           Calcium         ppm         ASTM D5185m         2042         1182         804           Phosphorus         ppm         ASTM D5185m         868         832         697           Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         >20         1         2         3           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >2500         5413         1226         951           Particles	Barium	ppm	ASTM D5185m		0	0	3
Magnesium         ppm         ASTM D5185m         19         24         13           Calcium         ppm         ASTM D5185m         2042         1182         804           Phosphorus         ppm         ASTM D5185m         868         832         697           Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         >20         1         2         3           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >2500         4903         65938         63820           Particles >6µm         ASTM D7647         >6490         14         13         16           Particles >21µm	Molybdenum	ppm	ASTM D5185m		<1	0	1
Calcium         ppm         ASTM D5185m         2042         1182         804           Phosphorus         ppm         ASTM D5185m         868         832         697           Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         >20         1         2         3           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >2500         5413         1226         951           Particles >21μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >40         0         0         0           Particles >71μm	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus         ppm         ASTM D5185m         868         832         697           Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         >20         1         2         3           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >2500         Δ 5413         1226         951           Particles >21μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	Magnesium	ppm	ASTM D5185m		19	24	13
Zinc         ppm         ASTM D5185m         1031         1023         853           Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         3         3         1           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         64903         65938         63820           Particles >6µm         ASTM D7647         >2500         5413         1226         951           Particles >14µm         ASTM D7647         >640         14         13         16           Particles >21µm         ASTM D7647         >40         0         0         0           Particles >71µm         ASTM D7647         >10         0         0         0	Calcium	ppm	ASTM D5185m		2042	1182	804
Sulfur         ppm         ASTM D5185m         4016         3316         2590           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         3         3         1           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         64903         65938         63820           Particles >6µm         ASTM D7647         >2500         5413         1226         951           Particles >14µm         ASTM D7647         >640         14         13         16           Particles >21µm         ASTM D7647         >160         1         3         3           Particles >38µm         ASTM D7647         >40         0         0         0           Particles >71µm         ASTM D7647         >10         0         0         0	Phosphorus	ppm	ASTM D5185m		868	832	697
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         3         3         1           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         64903         65938         63820           Particles >6μm         ASTM D7647         >2500         Δ5413         1226         951           Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	Zinc	ppm	ASTM D5185m		1031	1023	853
Silicon         ppm         ASTM D5185m         >20         12         8         7           Sodium         ppm         ASTM D5185m         3         3         1           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >2500         4 5413         1226         951           Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	Sulfur	ppm	ASTM D5185m		4016	3316	2590
Sodium         ppm         ASTM D5185m         3         3         1           Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         64903         65938         63820           Particles >6μm         ASTM D7647         >2500         5413         1226         951           Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         1         2         3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         64903         65938         63820           Particles >6μm         ASTM D7647         >2500         5413         1226         951           Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	Silicon	ppm	ASTM D5185m	>20	12	8	7
FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         64903         65938         63820           Particles >6μm         ASTM D7647         >2500         5413         1226         951           Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	Sodium	ppm	ASTM D5185m		3	3	1
Particles >4μm         ASTM D7647         64903         65938         63820           Particles >6μm         ASTM D7647         >2500         5413         1226         951           Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	Potassium	ppm	ASTM D5185m	>20	1	2	3
Particles >6μm         ASTM D7647         >2500         5413         1226         951           Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0	FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >14μm         ASTM D7647         >640         14         13         16           Particles >21μm         ASTM D7647         >160         1         3         3           Particles >38μm         ASTM D7647         >40         0         0         0           Particles >71μm         ASTM D7647         >10         0         0         0	Particles >4µm		ASTM D7647		64903	65938	63820
Particles >21μm       ASTM D7647       >160       1       3       3         Particles >38μm       ASTM D7647       >40       0       0       0         Particles >71μm       ASTM D7647       >10       0       0       0	Particles >6µm		ASTM D7647	>2500	<u></u> 5413	1226	951
Particles >38μm       ASTM D7647       >40       0       0       0         Particles >71μm       ASTM D7647       >10       0       0       0	Particles >14µm		ASTM D7647	>640	14	13	16
Particles >71μm ASTM D7647 >10 <b>0</b> 0	Particles >21µm		ASTM D7647	>160	1	3	3
	Particles >38µm		ASTM D7647	>40	0	0	0
Oil Cleanliness ISO 4406 (c) >/18/16 🛕 23/20/11 23/17/11 23/17/11	Particles >71µm		ASTM D7647	>10	0	0	0
	Oil Cleanliness		ISO 4406 (c)	>/18/16	<u>23/20/11</u>	23/17/11	23/17/11



## OIL ANALYSIS REPORT







Certificate 12367

Sample No. Lab Number : 06206435

: WC0901240 Unique Number : 11073896 Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 11 Jun 2024 **Tested** : 13 Jun 2024

Diagnosed : 13 Jun 2024 - Don Baldridge

SHERWOOD CONSTRUCTION CO INC

3219 WEST MAY ST WICHITA, KS US 67213

Contact: DOUG KING doug.king@sherwood.net T: (316)617-3161

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)

F: x: