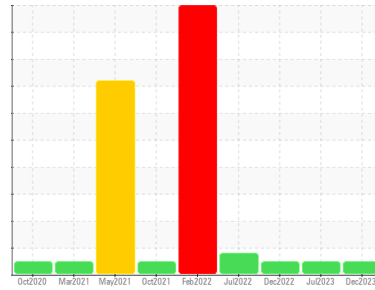




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**Studer S33 Universal Grinder # 524 (Cavity Flanges) - cc4607**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.  
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### 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			<b>WC0887626</b>	WC0838558	WC0768069
Sample Date	Client Info			<b>10 Dec 2023</b>	10 Jul 2023	05 Dec 2022
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>8</b>	4	2
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	3	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>2</b>	1	<1
Copper	ppm	ASTM D5185(m)	>20	<b>15</b>	13	5
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

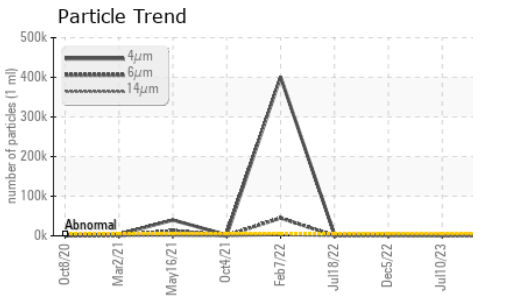
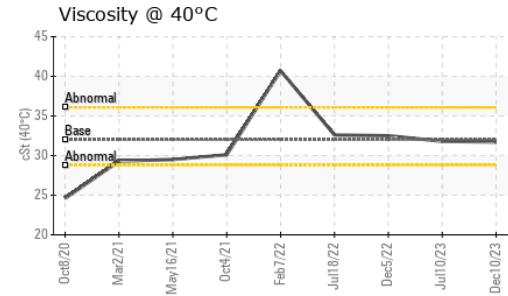
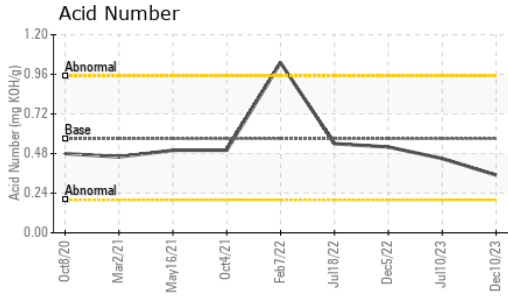
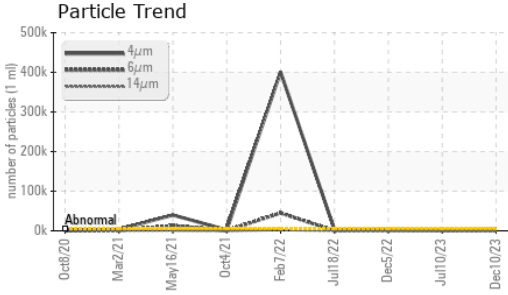
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<b>2</b>	<1	<1
Barium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	25	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	200	<b>8</b>	9	24
Phosphorus	ppm	ASTM D5185(m)	300	<b>272</b>	308	352
Zinc	ppm	ASTM D5185(m)	370	<b>225</b>	311	397
Sulfur	ppm	ASTM D5185(m)	2500	<b>2306</b>	2391	2396
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>4039</b>	2341	3621
Particles >6µm		ASTM D7647	>1300	<b>872</b>	738	1127
Particles >14µm		ASTM D7647	>160	<b>26</b>	41	53
Particles >21µm		ASTM D7647	>40	<b>4</b>	6	9
Particles >38µm		ASTM D7647	>10	<b>1</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/17/12</b>	18/17/13	19/17/13



# OIL ANALYSIS REPORT

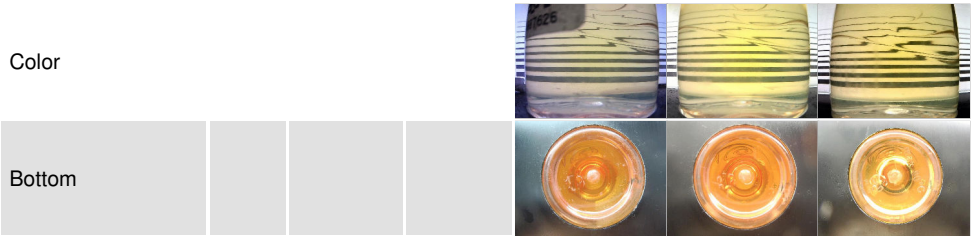


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	<b>0.35</b>	0.45	0.52

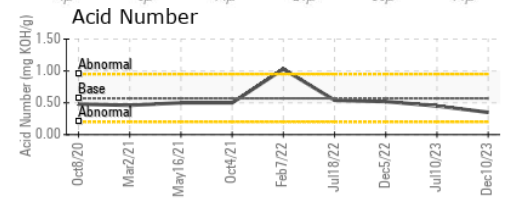
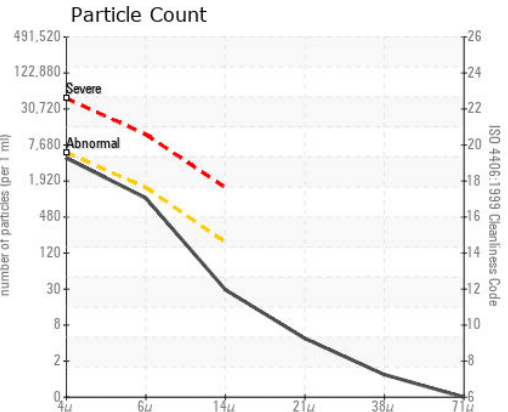
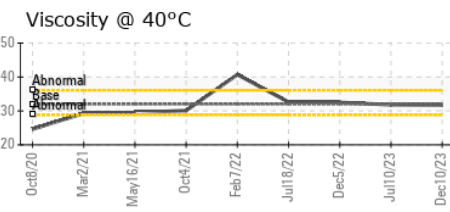
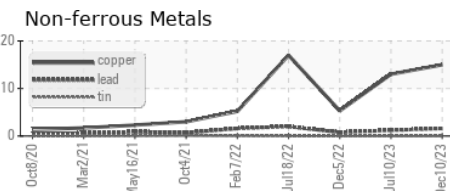
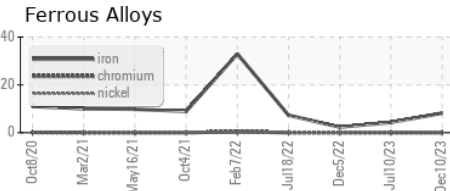
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32	<b>31.7</b>	31.8	32.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 HUSKY INJECTION MOLDING SYSTEMS LTD  
**Sample No.** : WC0887626 **Received** : 11 Dec 2023 **530 QUEEN STREET SOUTH**  
**Lab Number** : 02602256 **Diagnosed** : 12 Dec 2023 **BOLTON, ON**  
**Unique Number** : 5695341 **Diagnostician** : Wes Davis **CA L7E 5S5**  
**Test Package** : IND 2 **Contact: Robert Cameron**  
**rcameron@husky.ca**  
**T: (905)951-5000**  
**F: (905)951-5167**

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.