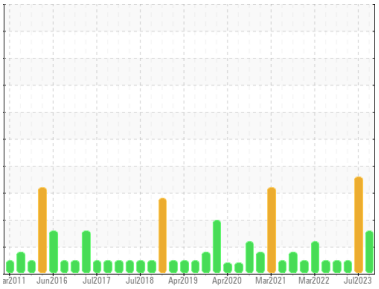
PROBLEM SUMMARY

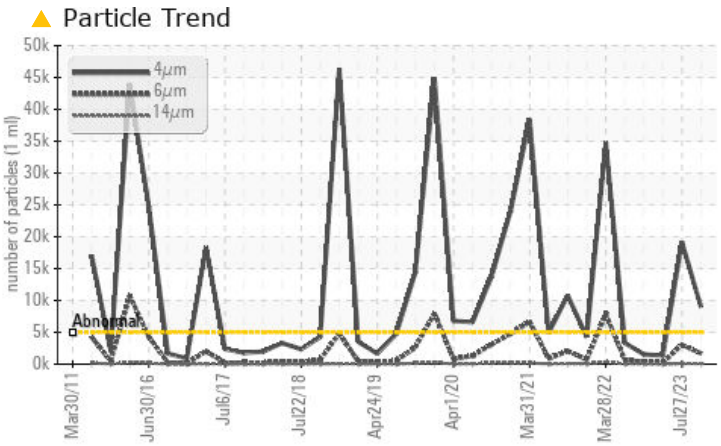
Sample Rating Trend



ISO

Area
TURRET
Machine Id
06-WY-7654 ANCHOR MOORING WINCH (S/N Maint Plan 22466)
Component
1 Hydraulic System
Fluid
SAE 10W (--- GAL)

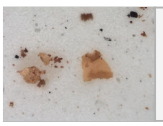
COMPONENT CONDITION SUMMARY



RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique.
DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Particles >4µm		ASTM D7647	>5000	▲ **8986**	▲ 19137	1349
Particles >6µm		ASTM D7647	>1300	▲ **1698**	▲ 3024	235
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/13**	▲ 21/19/14	18/15/10
Debris	scalar	Visual*	NONE	▲ **VLITE**	VLITE	NONE
PrtFilter					*no image*	*no image*

Customer Id: SPESTJ
Sample No.: PP
Lab Number: 02592096
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Alert	---	---	?	Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

WATER

27 Jul 2023 Diag: Kevin Marson

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. 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. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Free water present. 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

NORMAL

22 May 2023 Diag: Kevin Marson

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. 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.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

NORMAL

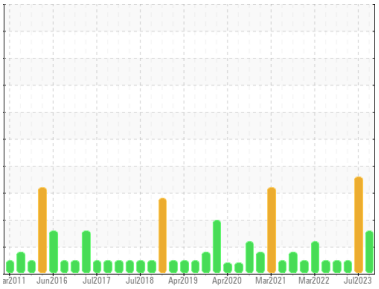
05 Feb 2023 Diag: Wes Davis

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. 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.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
TURRET
Machine Id
06-WY-7654 ANCHOR MOORING WINCH (S/N Maint Plan 22466)
Component
1 Hydraulic System
Fluid
SAE 10W (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique.
DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

Wear

All component wear rates are normal.

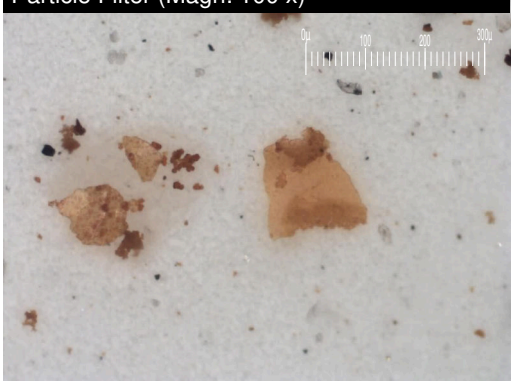
Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. Light concentration of visible dirt/debris present in the oil. The water content is negligible.

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.

Particle Filter (Magn: 100 x)



SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PP**	PP	PP
Sample Date		Client Info		**18 Sep 2023**	27 Jul 2023	22 May 2023
Machine Age	days	Client Info		**0**	0	0
Oil Age	days	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>10	**<1**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	**0**	<1	0
Lead	ppm	ASTM D5185(m)	>20	**<1**	0	<1
Copper	ppm	ASTM D5185(m)	>20	**1**	1	1
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

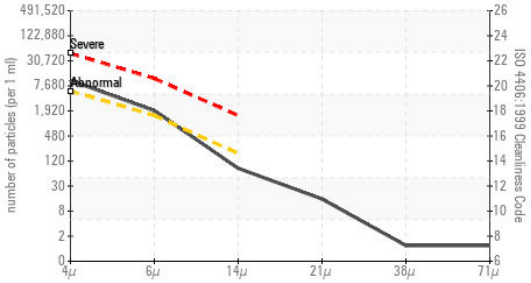
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**1**	<1	<1
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**1**	1	2
Calcium	ppm	ASTM D5185(m)		**127**	126	132
Phosphorus	ppm	ASTM D5185(m)		**491**	545	532
Zinc	ppm	ASTM D5185(m)		**650**	669	655
Sulfur	ppm	ASTM D5185(m)		**3805**	3912	4015
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Sodium	ppm	ASTM D5185(m)		**2**	2	2
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	0
Water	%	ASTM D6304*	>0.05	**0.025**	---	---
ppm Water	ppm	ASTM D6304*	>500	**250.8**	---	---

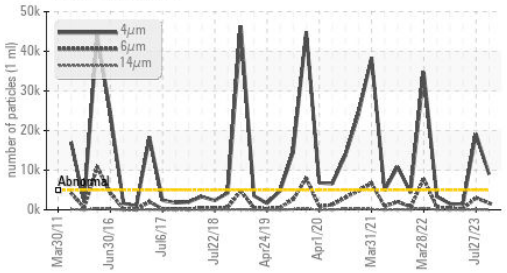
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ **8986**	▲ 19137	1349
Particles >6µm	ASTM D7647	>1300	▲ **1698**	▲ 3024	235
Particles >14µm	ASTM D7647	>160	**71**	88	8
Particles >21µm	ASTM D7647	>40	**13**	20	2
Particles >38µm	ASTM D7647	>10	**1**	1	1
Particles >71µm	ASTM D7647	>3	**1**	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ **20/18/13**	▲ 21/19/14	18/15/10

OIL ANALYSIS REPORT

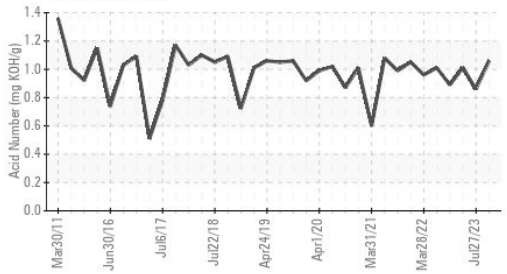
Particle Count



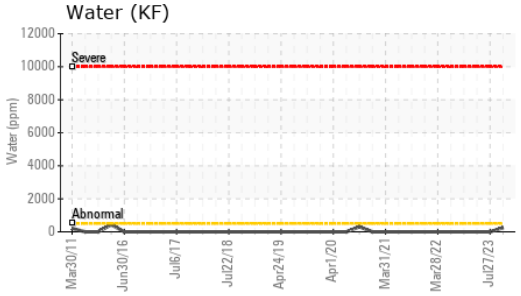
Particle Trend



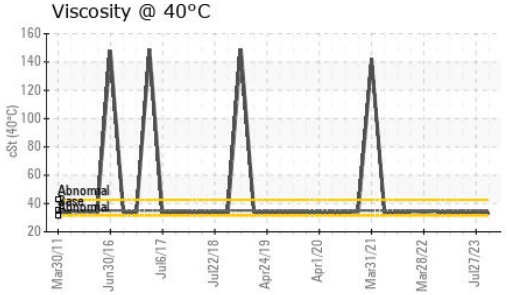
Acid Number



Water (KF)



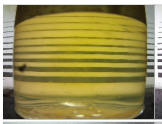
Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**1.06**	0.86	1.01

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	▲ **VLITE**	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	▲ WGOIL	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	**.2%**	.2%	NEG
Free Water	scalar	Visual*		**NEG**	▲ 1%	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	35.0	**33.2**	32.4	33.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter				*no image*	*no image*

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **HUSKY SEA ROSE /AKER SOLUTIONS**
Sample No. : PP **Received** : 26 Oct 2023 PO BOX 20
Lab Number : 02592096 **Diagnosed** : 01 Nov 2023 ST. JOHN`S, NL
Unique Number : 5669175 **Diagnostician** : Kevin Marson CA A1C 6C9
Test Package : IND 2 (Additional Tests: BottomAnalysis, FILTERPATCH, KF, PrtFilter) Contact: Maintenance Supervisor

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