

# **OIL ANALYSIS REPORT**

Sample Rating Trend





420095 - SW4023 Component Transmission (Manual)

TDTO FLUID SAE 10W (--- GAL)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Machine Id

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the fluid.

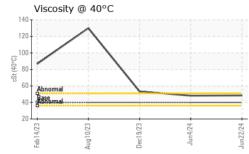
#### Fluid Condition

The condition of the fluid is acceptable for the time in service.

Sample Date       Client Info       22 Jun 2024       04 Jun 2024       19 Dec 2023         Machine Age       mis       Client Info       141876       126541       109082         Oil Age       mis       Client Info       141876       126541       109082         Sample Status       Client Info       Changed       Changed       Changed       Changed         Sample Status       method       Imit/base       current       history1       History2         Water       WC Method       >0.1       NEG       NEG       NEG         VEAR METALS       method       Imit/base       current       history1       history2         Kromium       ppm       ASTM 05185m       >5       <1       0       0         Nickel       ppm       ASTM 05185m       >5       <1       0       0         Nickel       ppm       ASTM 05185m       >5       <1       0       0         Adumium       ppm       ASTM 05185m       >5       <1       0       0         Adumium       ppm       ASTM 05185m       >10       <1       1       0 <th>SAMPLE INFOR</th> <th>MATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age       mis       Client Info       141876       126541       109082         Oil Age       mis       Client Info       141876       126541       109082         Oil Changed       Client Info       141876       126541       109082         Oil Age       Client Info       NORMAL       NORMAL       NORMAL         CONTAMINATION       method       Imit/base       current       history1       history2         Water       WC Method       >0.1       NEG       NEG       NEG         WetAR METALS       method       Imit/base       current       history1       history2         Iron       ppm       ASTM D5165m       >5       <1       0       0         Titanium       ppm       ASTM D5165m       >5       <1       0       0         Lead       ppm       ASTM D5165m       >7       0       0       0       0         Cadmium       ppm       ASTM D5165m       >10       <1       <1       0         Vanadium       ppm       ASTM D5165m       >7       0       0       0       1<1       1<1 <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>GFL0123549</th> <th>GFL0123601</th> <th>GFL0105537</th>	Sample Number		Client Info		GFL0123549	GFL0123601	GFL0105537
Oil Age     mis     Client Info     141876     126541     109082       Oil Changed     Client Info     Changed	Sample Date		Client Info		22 Jun 2024	04 Jun 2024	19 Dec 2023
Oil Changed   Client Info   Changed NORMAL   Changed NORMAL   Changed NORMAL   Changed 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   >50   <1   <1   <1     Nickel   ppm   ASTM D5185m   >55   <1   0   0     Nickel   ppm   ASTM D5185m   >55   <1   0   0     Nickel   ppm   ASTM D5185m   >5   <1   0   0     Silver   ppm   ASTM D5185m   >5   <1   0   0     Cadmium   ppm   ASTM D5185m   >225   33   22   21     Tin   ppm   ASTM D5185m   >10   <1   <1   0     Vanadium   ppm   ASTM D5185m   >25   33   22   1     Astm D5185m   >10   <1   <1   <1   <1     Cadmium   ppm   ASTM D5185m   0   0   <1  ASTM D5185m   7   0   0	Machine Age	mls	Client Info		141876	126541	109082
Sample Status       NORMAL       NORMAL       NORMAL       ABNORMAL         CONTAMINATION       method       imil/base       current       history1       history2         Water       WC Method       >0.1       NEG       NEG       NEG         Wear METALS       method       imil/base       current       history1       history2         Iron       ppm       ASTM D5185m       >50       <1       <1       <1         Nickel       ppm       ASTM D5185m       >55       <1       0       0         Itanium       ppm       ASTM D5185m       >7       0       0       0         Aluminum       ppm       ASTM D5185m       >7       0       0       0         Copper       ppm       ASTM D5185m       >10       <1       <1       0         Copper       ppm       ASTM D5185m       >10       <1       <1       0         Adadium       ppm       ASTM D5185m       7       0       0       0         Copper       ppm       ASTM D5185m       7       0       0       0	Oil Age	mls	Client Info		141876	126541	109082
CONTAMINATION       method       limit/base       current       history1       history2         Water       WC Method       >0.1       NEG       NEG       NEG         Wear Wear       WC Method       >0.1       NEG       NEG       NEG         Wear Wear       ppm       ASTM D5185m       >50       <1       <1       <1         fron       ppm       ASTM D5185m       >55       <1       0       0         Nickel       ppm       ASTM D5185m       >55       <1       0       0         Silver       ppm       ASTM D5185m       >55       <1       0       0         Aluminum       ppm       ASTM D5185m       >255       3       0       1       1         Lead       ppm       ASTM D5185m       >255       33       22       21       1         Adminum       ppm       ASTM D5185m       >10       <1       <1       0       <1         Copper       ppm       ASTM D5185m       10       0       0       <1       <1         Cadmium       ppm       ASTM D5185m	Oil Changed		Client Info		Changed	Changed	Changed
Water       WC Method       >0.1       NEG       NEG       NEG         WEAR METALS       method       limit/base       current       history1       history2         Iron       ppm       ASTM D5186m       >200       6       3       3         Chromium       ppm       ASTM D5186m       >5       <1       <1       <1         Nickel       ppm       ASTM D5186m       >5       <1       0       <1         Silver       ppm       ASTM D5186m       >25       3       0       1         Lead       ppm       ASTM D5186m       >25       3       0       1         Lead       ppm       ASTM D5186m       >25       3       0       0         Vanadium       ppm       ASTM D5186m       >10       <1       1         Vanadium       ppm       ASTM D5185m       10       <1       1         ASTM D5185m       7       0       0       <1       1         Manganese       ppm       ASTM D5185m       75       5       6       6         Cadmium       ppm	Sample Status				NORMAL	NORMAL	ABNORMAL
WEAR METALS       method       limit/base       current       history1       history2         Iron       ppm       ASTM D5185m       >200       6       3       3         Chromium       ppm       ASTM D5185m       >5       <1       <1       <1         Nickel       ppm       ASTM D5185m       >5       <1       0       0         Nickel       ppm       ASTM D5185m       >7       0       0       0         Aluminum       ppm       ASTM D5185m       >7       0       0       0         Aluminum       ppm       ASTM D5185m       >25       3       0       1         Lead       ppm       ASTM D5185m       >25       3       0       0         Vanadium       ppm       ASTM D5185m       >10       <1       <1       0         Vanadium       ppm       ASTM D5185m       0       0       <1       1         ADDITIVES       method       limit/base       current       history1       history2         Barium       ppm       ASTM D5185m       7       0       0	CONTAMINAT	ION	method	limit/base	current	history1	history2
Iron       ppm       ASTM D5185m       >200       6       3       3         Chromium       ppm       ASTM D5185m       >5       <1       <1       <1         Nickel       ppm       ASTM D5185m       >5       <1       0       <1         Nickel       ppm       ASTM D5185m       >5       <1       0       <1         Silver       ppm       ASTM D5185m       >7       0       0       0         Aluminum       ppm       ASTM D5185m       >25       3       0       1         Lead       ppm       ASTM D5185m       >25       33       22       21         Tin       ppm       ASTM D5185m       >10       <1       <1       0         Cadmium       ppm       ASTM D5185m       0       0       <1       1         ADD1TIVES       method       Imit/base       current       history1       history2         Boron       ppm       ASTM D5185m       7       0       0       0         Molybdenum       ppm       ASTM D5185m       265       5       6 <td< th=""><th>Water</th><th></th><th>WC Method</th><th>&gt;0.1</th><th>NEG</th><th>NEG</th><th>NEG</th></td<>	Water		WC Method	>0.1	NEG	NEG	NEG
Dromium       ppm       ASTM D5185m       >5       <1	WEAR METAL	S	method	limit/base	current	history1	history2
NickelppmASTM D5185m>5<1	Iron	ppm	ASTM D5185m	>200	6	3	3
Titanium       ppm       ASTM D5185m       <1	Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Silver       ppm       ASTM D5185m       >7       0       0       0         Aluminum       ppm       ASTM D5185m       >25       3       0       1         Lead       ppm       ASTM D5185m       >45       0       0       0         Copper       ppm       ASTM D5185m       >225       33       22       21         Tin       ppm       ASTM D5185m       >10       <1       10       0         Vanadium       ppm       ASTM D5185m       10       0       0       <1         Cadmium       ppm       ASTM D5185m       0       0       0       <1         ADDITIVES       method       limit/base       current       history1       history2         Boron       ppm       ASTM D5185m       37       5       4       5         Barium       ppm       ASTM D5185m       7       0       0       0         Magnesee       ppm       ASTM D5185m       2650       2853       3042       2902         Phosphorus       ppm       ASTM D5185m       105       13       15	Nickel	ppm	ASTM D5185m	>5	<1	0	0
Aluminum       ppm       ASTM D5185m       >25       3       0       1         Lead       ppm       ASTM D5185m       >45       0       0       0         Copper       ppm       ASTM D5185m       >225       33       22       21         Tin       ppm       ASTM D5185m       >10       <1       <1       0         Vanadium       ppm       ASTM D5185m       0       0       <1       0         Cadmium       ppm       ASTM D5185m       0       0       <1       0         ASTM D5185m       7       0       0       <1       1       1       1         Manganese       ppm       ASTM D5185m       7       0       0       0       0         Magnesium       ppm       ASTM D5185m       5       3       2       1       1         Magnesium       ppm       ASTM D5185m       1       1       1       1       1         Magnesium       ppm       ASTM D5185m       1050       982       992       906         Zinc       ppm       ASTM D5185m <th>Titanium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>&lt;1</th> <th>0</th> <th>&lt;1</th>	Titanium	ppm	ASTM D5185m		<1	0	<1
Lead       ppm       ASTM D5185m       >45       0       0       0         Copper       ppm       ASTM D5185m       >225       33       22       21         Tin       ppm       ASTM D5185m       >10       <1       <1       0         Vanadium       ppm       ASTM D5185m       10       <1       <1       0         Cadmium       ppm       ASTM D5185m       0       0       <1       1         ADDITIVES       method       limit/base       current       history1       history2         Boron       ppm       ASTM D5185m       7       0       0       0         Magnesium       ppm       ASTM D5185m       5       3       2       1         Magnesium       ppm       ASTM D5185m       5       5       6       6         Calcium       ppm       ASTM D5185m       1050       982       992       906         Zinc       ppm       ASTM D5185m       1050       982       992       906         Zinc       ppm       ASTM D5185m       5750       3948       4043 </th <th>Silver</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;7</th> <th>0</th> <th>0</th> <th>0</th>	Silver	ppm	ASTM D5185m	>7	0	0	0
Copper       ppm       ASTM D5185m       >225       33       22       21         Tin       ppm       ASTM D5185m       >10       <1       <1       0         Vanadium       ppm       ASTM D5185m       0       0       <1       0         Cadmium       ppm       ASTM D5185m       0       0       <1       0         ADDITIVES       method       limit/base       current       history1       history2         Boron       ppm       ASTM D5185m       37       5       4       5         Barium       ppm       ASTM D5185m       7       0       0       0         Maganese       ppm       ASTM D5185m       5       3       22       1         Maganese       ppm       ASTM D5185m       75       6       6       6         Calcium       ppm       ASTM D5185m       1050       982       992       906         Zinc       ppm       ASTM D5185m       1075       1133       1146       1157         Sulfur       ppm       ASTM D5185m       >125       13       15 </th <th>Aluminum</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;25</th> <th>3</th> <th>0</th> <th>1</th>	Aluminum	ppm	ASTM D5185m	>25	3	0	1
TinppmASTM D5185m>10<1	Lead	ppm	ASTM D5185m	>45	0	0	0
VanadiumppmASTM D5185m00<1	Copper	ppm	ASTM D5185m	>225	33	22	21
CadmiumppmASTM D5185m00<1	Tin	ppm	ASTM D5185m	>10	<1	<1	0
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m37545BariumppmASTM D5185m7000MolybdenumppmASTM D5185m5321ManganeseppmASTM D5185m<1<1<1<1ManganeseppmASTM D5185m40556CalciumppmASTM D5185m40556CalciumppmASTM D5185m1050982992906ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESodiumppsscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONE<	Vanadium	ppm	ASTM D5185m		0	0	<1
BoronppmASTM D5185m37545BariumppmASTM D5185m7000MolybdenumppmASTM D5185m5321ManganeseppmASTM D5185m4556CalciumppmASTM D5185m40556CalciumppmASTM D5185m2650285330422902PhosphorusppmASTM D5185m1050962992906ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAstroscalar*VisualNORMLNORMLNORMLNORMLAstroscalar <th>Cadmium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>0</th> <th>&lt;1</th>	Cadmium	ppm	ASTM D5185m		0	0	<1
BariumppmASTM D5185m70000MolybdenumppmASTM D5185m5321ManganeseppmASTM D5185m<<1<1<1MagnesiumppmASTM D5185m40556CalciumppmASTM D5185m2650285330422902PhosphorusppmASTM D5185m1050982992906ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLNORMLAppearancescalar*VisualNORMLNORMLNORMLNORML </th <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
MolybdenumppmASTM D5185m5321ManganeseppmASTM D5185m40556CalciumppmASTM D5185m2650285330422902PhosphorusppmASTM D5185m1050982992906ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONESodiurscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESolitscalar*VisualNONENONENONENONENONESolitscalar*VisualNONENONENONENONEN	Boron	ppm	ASTM D5185m	37	5	4	5
ManganeseppmASTM D5185m<1	Barium	ppm	ASTM D5185m	7	0	0	0
MagnesiumppmASTM D5185m40556CalciumppmASTM D5185m2650285330422902PhosphorusppmASTM D5185m1050982992906ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Molybdenum	ppm	ASTM D5185m	5	3	2	1
CalciumppmASTM D5185m2650285330422902PhosphorusppmASTM D5185m1050982992906ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Manganese	ppm	ASTM D5185m		<1	<1	<1
PhosphorusppmASTM D5185m1050982992906ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONESilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAstrix Scalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENORENONENONEAstrix Scalar*VisualNORMLNORMLNORMLNORMLNORMLAstrix Scalar*VisualNORENORENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLNORMLNORMLAstrix Scalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLAppearance <th>Magnesium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>40</th> <th>5</th> <th>5</th> <th>6</th>	Magnesium	ppm	ASTM D5185m	40	5	5	6
ZincppmASTM D5185m1075113311461157SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNorderscalar*VisualNORMLNORMLNORMLNORMLNorderscalar*VisualNORMLNORMLNORMLNORMLNorderscalar*VisualNORMLNORMLNORMLNORMLNorderscalar*VisualNORMLNORMLNORMLNORMLMateriascalar*VisualNORMLNORMLNORMLNORML	Calcium	ppm	ASTM D5185m	2650	2853	3042	2902
SulfurppmASTM D5185m5750394840433461CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m>20345PotassiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Phosphorus	nnm	ACTM DE185m	1050	982	002	006
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>125131513SodiumppmASTM D5185m345PotassiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	1.1000010100	ppm	ASTIVI DUTOUIII	1000	••=	992	900
SiliconppmASTM D5185m< >125131513SodiumppmASTM D5185m345PotassiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Zinc						
SodiumppmASTM D5185m345PotassiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLNORMLAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG		ppm	ASTM D5185m	1075	1133	1146	1157
PotassiumppmASTM D5185m>20200VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	1075 5750	1133 3948	1146 4043	1157 3461
VISUAL   method   limit/base   current   history1   history2     White Metal   scalar   *Visual   NONE   NONE   NONE   NONE   MODER     Yellow Metal   scalar   *Visual   NONE   NONE   NONE   NONE   NONE     Precipitate   scalar   *Visual   NONE   NONE   NONE   NONE   NONE     Silt   scalar   *Visual   NONE   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   >0.1   NEG   NEG   NEG	Zinc Sulfur	ppm ppm ITS	ASTM D5185m ASTM D5185m method	1075 5750 limit/base	1133 3948 current	1146 4043 history1	1157 3461 history2
White Metalscalar*VisualNONENONENONENONEMODERYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Zinc Sulfur CONTAMINAN	ppm ppm ITS ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	1075 5750 limit/base	1133 3948 current 13	1146 4043 history1 15	1157 3461 history2 13
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Zinc Sulfur CONTAMINAN Silicon	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	1075 5750 limit/base >125	1133 3948 current 13 3	1146 4043 history1 15 4	1157 3461 history2 13 5
Precipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	1075 5750 limit/base >125 >20	1133 3948 current 13 3 2	1146 4043 history1 15 4 0	1157 3461 history2 13 5 0
Siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *Visual	1075 5750 imit/base >125 >20 imit/base NONE	1133 3948 current 13 3 2 current NONE	1146 4043 history1 15 4 0 history1 NONE	1157 3461 history2 13 5 0 history2 ▲ MODER
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm TS ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *Visual	1075 5750 imit/base >125 >20 imit/base NONE	1133 3948 current 13 3 2 current NONE	1146 4043 history1 15 4 0 history1 NONE NONE	1157 3461 history2 13 5 0 history2 ▲ MODER
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm TS ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *Visual	1075 5750 imit/base >125 >20 imit/base NONE NONE	1133 3948 current 13 3 2 current NONE NONE NONE	1146 4043 history1 15 4 0 history1 NONE NONE	1157 3461 13 5 0 history2 history2 MODER NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm TS ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> *Visual *Visual	1075 5750 Imit/base >125 >20 Imit/base NONE NONE NONE NONE NONE	1133 3948 current 13 3 2 current NONE NONE NONE NONE	1146 4043 history1 15 4 0 history1 NONE NONE NONE NONE	1157 3461 13 5 0 history2 MODER NONE NONE
Odor       scalar       *Visual       NORML       NORML       NORML       NORML       NORML         Emulsified Water       scalar       *Visual       >0.1       NEG       NEG       NEG	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	1075 5750 Imit/base >125 >20 Imit/base NONE NONE NONE NONE NONE	1133 3948 current 13 3 2 current NONE NONE NONE NONE	1146 4043 history1 15 4 0 history1 NONE NONE NONE NONE NONE	1157 3461 13 5 0 <u>history2</u> MODER NONE NONE NONE NONE
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	1075 5750 limit/base >125 >20 limit/base NONE NONE NONE NONE NONE NONE	1133 3948 current 13 3 2 current NONE NONE NONE NONE NONE	1146 4043 history1 15 4 0 history1 NONE NONE NONE NONE NONE NONE	1157 3461 13 5 0 history2 MODER NONE NONE NONE NONE NONE NONE
	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	1075 5750 limit/base >125 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	1133 3948 current 13 3 2 current NONE NONE NONE NONE NONE NONE NONE	1146 4043 history1 15 4 0 history1 NONE NONE NONE NONE NONE NONE NONE	1157 3461 history2 13 5 0 history2 MODER NONE NONE NONE NONE NONE NONE NONE
	Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	1075 5750 imit/base >125 20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	1133 3948 current 13 3 2 current NONE NONE NONE NONE NONE NONE NONE NON	1146 4043 history1 15 4 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	1157 3461 13 5 0 history2 MODER NONE NONE NONE NONE NONE NONE NONE NO
Free Water scalar *Visual <b>NEG</b> NEG NEG	Zinc Sulfur CONTAMINAN CONTAMINAN Silicon Sodium Potassium VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	1075 5750 imit/base >125 20 imit/base NONE NONE NONE NONE NONE NONE NONE NON	1133 3948 current 13 3 2 current NONE NONE NONE NONE NONE NONE NONE NON	1146 4043 history1 15 4 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	1157 3461 13 5 0 history2 MODER NONE NONE NONE NONE NONE NONE NONE NO



## **OIL ANALYSIS REPORT**



	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	40	48.5	48.23	53.4
	SAMPLE IMAG	ies	method	limit/base	current	history1	history2
24	Color				no image	no image	no image
Jun4,24 Jun22/24	Bottom				no image	no image	no image
	GRAPHS						
	Ferrous Alloys	Dec19/23	Jun4/24	Jun22/24			
Unique Number		1 Madiso Recei Teste Diagn	ved : 27 d : 28	r, NC 27513 7 Jun 2024 3 Jun 2024 8 Jun 2024 - V		S	st Belfort Street Sugar Land, TX US 77498
Test Package	: FLEET	ioo at 1 8	00 227 126	<b>ว</b>			Adrian Martinez



\* - 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)

Submitted By: TECHNICIAN ACCOUNT Page 2 of 2

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