

#### Machine Id 3350634 Component Left Hydraulic System Fluid AW HYDRAULIC OIL ISO 32 (50 GAL)

# RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

### CONTAMINATION

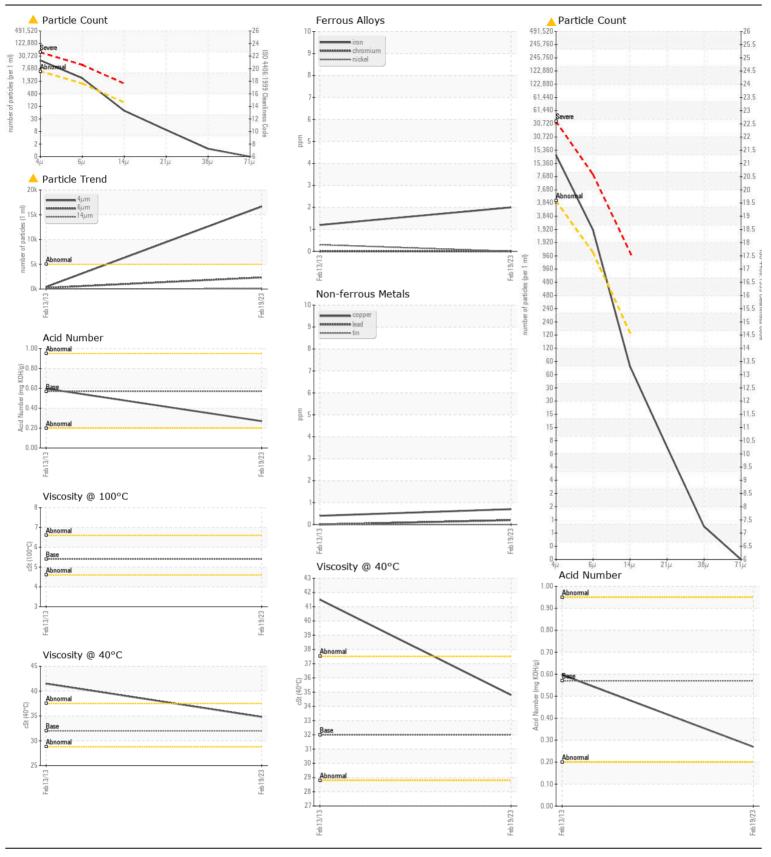
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

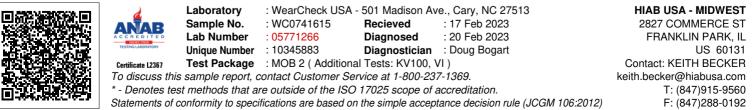
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## FLUID CONDITION

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

Test         UOM         Method         LimitAbn         Current         History1         History2           Sample Number         Client Info         WC0741615         WC0420738            Sample Date         Client Info         0         0            Oil Age         yrs         Client Info         0         3            Oil Changed         VS         Client Info         0         3            Sample Status         Client Info         Not Changed         Changed            Filter Changed         Client Info         Not Changed          Changed            Sample Status          ABNORMAL         ATTENTION            Iron         ppm         ASTM D5185m         >10         0            Nickel         ppm         ASTM D5185m         >10         0            Aluminum         ppm         ASTM D5185m         >10         0            Aluminum         ppm         ASTM D5185m         >10         0            Vanadium         ppm         ASTM D5185m         >10         0							
Sample Number         Client Info         WC0741615         WCM2207398            Sample Date         Client Info         0         0         0           Machine Age         yrs         Client Info         0         3            Oil Age         yrs         Client Info         0         3            Filter Age         yrs         Client Info         0         3            Filter Changed         Client Info         Not Changed          Changed            Sample Status         ASTM D5185m         >20         2         1            Chromium         ppm         ASTM D5185m         >10         0            Silver         ppm         ASTM D5185m         >10         0            Auminum         ppm         ASTM D5185m         >10         0            Auminum         ppm         ASTM D5185m         >10         0            Qapper         ppm         ASTM D5185m         >10         0            Yanadium         pm         ASTM D5185m         >10         0            Ya	Test	UOM	Method	Limit/Abn	Current	Historv1	Historv2
Machine Age         yrs         Client Info         0         0	Sample Number		Client Info			,	,
Machine Age         yrs         Client Info         0         0							
Oil Age         yrs         Client Info         0         3            Filter Age         yrs         Client Info         Not Changed         Not Changed            Gli Changed         Client Info         Not Changed          ABNORMAL         ATTENTION            Sample Status         Client Info         Changed          ABNORMAL         ATTENTION            Iron         ppm         ASTM D5185m         >20         2         1            Chromium         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Auminum         ppm         ASTM D5185m         >10         0             Auminum         ppm         ASTM D5185m         >10         0             Visual         NONE         NONE         NONE         NONE         NONE            Yelow Metal         scalar<*Visual         NONE </th <th></th> <th>vrs</th> <th></th> <th></th> <th></th> <th></th> <th></th>		vrs					
Filter Age         yrs         Client Info         0         3            Oil Changed         Client Info         Not Changd         Changed            Sample Status         ASTM D5185m         >20         2         1            Iron         ppm         ASTM D5185m         >10         0         0            Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0         0            Aluminum         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >20         0         0            Velaou Metal         scalar         "Visual         NONE         NONE         NONE	J J	,					
Oil Changed         Client Info         Not Changed         Changed <th>Ũ</th> <th>-</th> <th>Client Info</th> <th></th> <th>-</th> <th>3</th> <th></th>	Ũ	-	Client Info		-	3	
Filter Changed Sample Status         Client Info         Changed ABNORMAL         Changed ATTENTION	Ų	9.0			-		
Sample Status         ABNORMAL         ATTENTION            Iron         ppm         ASTM D5185m         >20         2         1            Chromium         ppm         ASTM D5185m         >10         0            Nickel         ppm         ASTM D5185m         0         0            Titanium         ppm         ASTM D5185m         <1         0            Aluminum         ppm         ASTM D5185m         >10         0         0            Lead         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Valed         scalar         "Visual         NONE         NONE         NONE            Valed         wc         Wc Method         >0.1         NEG            Paticles >4µm         ASTM D7647         >100         0            Paticles >4µm         ASTM D7647         >10         1 <th>-</th> <th></th> <th></th> <th></th> <th>v</th> <th>0</th> <th></th>	-				v	0	
Iron         ppm         ASTM D5185m         >20         2         1            Chromium         ppm         ASTM D5185m         >10         0         0            Nickel         ppm         ASTM D5185m         >10         0            Titanium         ppm         ASTM D5185m         0         0            Aluminum         ppm         ASTM D5185m         >10         0         0            Aluminum         ppm         ASTM D5185m         >10         0         0            Copper         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Yellow Metal         scalar         "Visual         NONE         NONE         NONE            Yellow Metal         scalar         "Visual         NONE         NONE         NONE            Yellow Metal         scalar         "Visual         NONE         ASTM D7647         >10         1         2            Particles >4µm         ASTM D7647         >					-		
Chromium         ppm         ASTM D5185m         >10         0         0            Nickel         ppm         ASTM D5185m         >10         0         <1            Silver         ppm         ASTM D5185m         <0         0            Silver         ppm         ASTM D5185m         >10         0         0            Aluminum         ppm         ASTM D5185m         >10         0         0            Lead         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >20         <1         3            Valite         scalar         *Visual         NONE         NONE         NONE            Valite         scalar         *Visual         NONE         NONE         NORE            Particles >4µm         ASTM D7647         >10         1         2							
Nickel         ppm         ASTM D5185m         >10         0         <1	Iron	ppm	ASTM D5185m	>20	2	1	
Titanium         ppm         ASTM D5185m         0         0            Silver         ppm         ASTM D5185m         <1         0            Aluminum         ppm         ASTM D5185m         >10         0         0            Lead         ppm         ASTM D5185m         >10         0         0            Copper         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >20         0         0            Veltow Metal         scalar         *Visual         NONE         NONE         NONE            Paticles >4µm         ASTM D7647         >100         A         2337         233            Particles >38µm         ASTM D7647         >10         1         2            Particles >38µm         ASTM D7647         >3         0         0	Chromium	ppm	ASTM D5185m	>10	0	0	
Silver         ppm         ASTM D5185m         <1	Nickel	ppm	ASTM D5185m	>10	0	<1	
Aluminum         ppm         ASTM D5185m         >10         0         0            Lead         ppm         ASTM D5185m         >10         <1         0            Copper         ppm         ASTM D5185m         >75         <1         <1            Vanadium         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         >10         0         <1            Vanadium         ppm         ASTM D5185m         >20         0         <1            Yellow Metal         scalar         *Visual         NONE         NONE         NONE            Water         WC Method         >0.1         NEG         NEG            Particles >4µm         ASTM D7647         >100         4         2337         233            Particles >38µm         ASTM D7647         >10         1         2            Particles >38µm         ASTM D7647         >3         0         0            Particles >38µm         ASTM D7647         >3         0         0	Titanium	ppm	ASTM D5185m		0	0	
Lead         ppm         ASTM D5185m         >10         <1	Silver	ppm	ASTM D5185m		<1	0	
Copper         ppm         ASTM D5185m         >75         <1	Aluminum	ppm	ASTM D5185m	>10	0	0	
Copper         ppm         ASTM D5185m         >75         <1	Lead		ASTM D5185m	>10	<1	0	
Tin         ppm         ASTM D5185m         >10         0         0            Vanadium         ppm         ASTM D5185m         0         <1            White Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE            Silicon         ppm         ASTM D5185m         >20         0         0            Potassium         ppm         ASTM D5185m         >20         0         0            Particles >4µm         ASTM D7647         >1000         ▲         16656         428            Particles >14µm         ASTM D7647         >100         ▲         2337         233            Particles >14µm         ASTM D7647         >10         1         2            Particles >38µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (> 191714         ▲         21/18/13         16/15/12            Sand/Dirt         scalar         *Visual         NONE <td< th=""><th>Copper</th><th></th><th>ASTM D5185m</th><th>&gt;75</th><th>&lt;1</th><th>&lt;1</th><th></th></td<>	Copper		ASTM D5185m	>75	<1	<1	
Vanadium         ppm         ASTM D5185m         0         <1			ASTM D5185m	>10	0	0	
Yellow Metal         scalar         *Visual         NONE         NONE         NONE            Silicon         ppm         ASTM D5185m<>20         0         0            Potassium         ppm         ASTM D5185m<>20         0         0            Water         WC Method         >0.1         NEG         NEG            Particles >4µm         ASTM D7647         >5000         ▲ 16656         428            Particles >6µm         ASTM D7647         >100         ▲ 2337         233            Particles >14µm         ASTM D7647         >10         1         2            Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         /91/14         21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Sodium         ppm         ASTM D5185m         NORML         NORML            Boroon <td< th=""><th>Vanadium</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>0</th><th>&lt;1</th><th></th></td<>	Vanadium	ppm	ASTM D5185m		0	<1	
Yellow Metal         scalar         *Visual         NONE         NONE         NONE            Silicon         ppm         ASTM D5185m<>20         0         0            Potassium         ppm         ASTM D5185m<>20         0         0            Water         WC Method         >0.1         NEG         NEG            Particles >4µm         ASTM D7647         >5000         16656         428            Particles >5µm         ASTM D7647         >100         2337         233            Particles >14µm         ASTM D7647         >10         1         2            Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         /91/14         21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Sodium         ppm         ASTM D5185m         0         0             Boron			*Visual	NONE	NONE	NONE	
Silicon         ppm         ASTM D5185m         >20         <1			*Visual			NONE	
Potassium         ppm         ASTM D5185m         >20         0         0            Water         WC Method         >0.1         NEG         NEG            Particles >4µm         ASTM D7647         >5000         ▲ 16656         428            Particles >6µm         ASTM D7647         >1300         ▲ 2337         233            Particles >6µm         ASTM D7647         >160         66         39            Particles >14µm         ASTM D7647         >40         8         13            Particles >21µm         ASTM D7647         >10         1         2            Particles >38µm         ASTM D7647         >3         0         0            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Sand/Dirt         scalar         *Visual         NORM         NORML         NORML							
Water         WC Method         >0.1         NEG         NEG            Particles >4µm         ASTM D7647         >5000         ▲ 16656         428            Particles >6µm         ASTM D7647         >1300         ▲ 2337         233            Particles >14µm         ASTM D7647         >160         66         39            Particles >21µm         ASTM D7647         >40         8         13            Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Sand/Dirt         scalar         *Visual         NOR         NORML         NORML            Appearance         scalar         *Visual         NORML         NORML         NORML            Boron         ppm         ASTM D5185m         5         0         0	Silicon	ppm	ASTM D5185m	>20	<1	3	
Particles >4µm         ASTM D7647         >5000         ▲ 16656         428            Particles >6µm         ASTM D7647         >1300         ▲ 2337         233            Particles >14µm         ASTM D7647         >160         66         39            Particles >21µm         ASTM D7647         >40         8         13            Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Particles >71µm         ASTM D7647         >3         0         0            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >191714         ▲ 21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Sand/Dirt         scalar         *Visual         NOR         NORML         NORML            Baron         ppm         ASTM D5185m         5         0         <1 <td< th=""><th>Potassium</th><th>ppm</th><th>ASTM D5185m</th><th>&gt;20</th><th>0</th><th>0</th><th></th></td<>	Potassium	ppm	ASTM D5185m	>20	0	0	
Particles >6µm         ASTM D7647         >1300         ▲ 2337         233            Particles >14µm         ASTM D7647         >160         66         39            Particles >21µm         ASTM D7647         >40         8         13            Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >19/17/4         ▲ 21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         VLITE            Sand/Dirt         scalar         *Visual         NORM         NORML         NORML            Appearance         scalar         *Visual         NORM         NORML         NORML            Gotor         scalar         *Visual         NORM         NORML             Boron         ppm         ASTM D5185m         5         0         <	Water		WC Method	>0.1	NEG	NEG	
Particles >14µm         ASTM D7647         >160         66         39            Particles >21µm         ASTM D7647         >40         8         13            Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >19/17/4         ▲ 21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         NONE            Sand/Dirt         scalar         *Visual         NOR         NORE         NORML            Appearance         scalar         *Visual         NORML         NORML         NORML            Odor         scalar         *Visual         NORML         NORML         NORML            Baron         ppm         ASTM D5185m         5         0             Maganese         ppm         ASTM D5185m         5         3	Particles >4µm		ASTM D7647	>5000	🔺 16656	428	
Particles >21µm         ASTM D7647         >40         8         13            Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         NONE            Sand/Dirt         scalar         *Visual         NORM         NORM         NORM            Appearance         scalar         *Visual         >0.1         NEG             Appearance         scalar         *Visual         >0.	Particles >6µm		ASTM D7647	>1300	<b>a</b> 2337	233	
Particles >38µm         ASTM D7647         >10         1         2            Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         VLITE            Sand/Dirt         scalar         *Visual         NONE         NONE         NORML            Appearance         scalar         *Visual         NORML         NORML         NORML            Odor         scalar         *Visual         NORML         NORML         NORML            Gor         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML             Appearance         scalar         *Vis	Particles >14µm		ASTM D7647	>160	66	39	
Particles >71µm         ASTM D7647         >3         0         0            Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         VLITE            Sand/Dirt         scalar         *Visual         NONE         NONE         NONE            Appearance         scalar         *Visual         NORML         NORML         NORML            Odor         scalar         *Visual         NORML         NORML         NORML            Odor         scalar         *Visual         NORML         NORML         NORML            Gor         scalar         *Visual         NORML         NORML             Gor         scalar         *Visual         NORML         NORML             Barium         ppm         ASTM D5185m         5         0             Manganese         ppm         ASTM	Particles >21µm		ASTM D7647	>40	8	13	
Oil Cleanliness         ISO 4406 (c)         >19/17/14         ▲ 21/18/13         16/15/12            Silt         scalar         *Visual         NONE         NONE         NONE            Debris         scalar         *Visual         NONE         NONE         VLITE            Sand/Dirt         scalar         *Visual         NONE         NONE         NONE            Appearance         scalar         *Visual         NORML         NORML         NORML            Odor         scalar         *Visual         NORML         NORML         NORML            Godor         scalar         *Visual         NORML         NORML         NORML            Godor         scalar         *Visual         NORML         NORML         NORML            Godor         scalar         *Visual         >0.1         NEG         NEG            Boron         ppm         ASTM D5185m         5         0         0            Barium         ppm         ASTM D5185m         5         3             Magnesium         ppm	Particles >38µm		ASTM D7647	>10	1	2	
Siltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONEVLITESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m50<1BoronppmASTM D5185m50<1BariumppmASTM D5185m50<MolybdenumppmASTM D5185m5<1<1MagnesiumppmASTM D5185m2007562PhosphorusppmASTM D5185m370450404SulfurppmASTM D5185m250026063868SulfurppmASTM D8185250026063868Visc @ 40°CcStASTM D4455.46.7Visc @ 100°CcStASTM D4455.46.7	Particles >71µm		ASTM D7647	>3	0	0	
Debrisscalar*VisualNONENONEVLITESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m50<1BoronppmASTM D5185m50<1BariumppmASTM D5185m50<1MalganeseppmASTM D5185m53MagnesiumppmASTM D5185m2007562PhosphorusppmASTM D5185m370450404SulfurppmASTM D5185m250026063868Visc @ 40°CcStASTM D4453234.841.5Visc @ 100°CcStASTM D4455.46.7	Oil Cleanliness		ISO 4406 (c)	>19/17/14	<u> </u>	16/15/12	
Sand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m50<1BoronppmASTM D5185m50<1BariumppmASTM D5185m50<MalganeseppmASTM D5185m53MagnesiumppmASTM D5185m2553PhosphorusppmASTM D5185m3003400337ZincppmASTM D5185m2500260638688SulfurppmASTM D5185m2.570.270.597Visc @ 40°CcStASTM D4453234.841.5Visc @ 100°CcStASTM D4455.46.7	Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance Odorscalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m00BoronppmASTM D5185m50<1BariumppmASTM D5185m500MolybdenumppmASTM D5185m5<1<1MagneseppmASTM D5185m2553MagnesiumppmASTM D5185m2007562PhosphorusppmASTM D5185m370450404SulfurppmASTM D5185m250026063868Acid Number (AN)mg KOHgASTM D80450.570.270.597Visc @ 100°CcStASTM D4455.46.7	Debris	scalar	*Visual	NONE	NONE	VLITE	
Odorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m500BoronppmASTM D5185m50<1BariumppmASTM D5185m500MolybdenumppmASTM D5185m500MaganeseppmASTM D5185m253MagnesiumppmASTM D5185m2007562PhosphorusppmASTM D5185m30034003337ZincppmASTM D5185m37045004044SulfurppmASTM D5185m25002606638688Visc @ 40°CcStASTM D4453234.841.5Visc @ 100°CcStASTM D4455.46.7	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Water         scalar         *Visual         >0.1         NEG         NEG            Sodium         ppm         ASTM D5185m         0         0            Boron         ppm         ASTM D5185m         5         0         <1            Barium         ppm         ASTM D5185m         5         0         0            Manganese         ppm         ASTM D5185m         5         <1         <1            Magnesium         ppm         ASTM D5185m         25         5         3            Calcium         ppm         ASTM D5185m         200         75         62            Phosphorus         ppm         ASTM D5185m         300         3400         3337            Sulfur         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Visc @ 40°C         cSt         ASTM D8045         0.57         0.27         0.597            Visc @ 100°C         cSt         ASTM D454	Appearance	scalar	*Visual	NORML	NORML	NORML	
Sodium         ppm         ASTM D5185m         0         0            Boron         ppm         ASTM D5185m         5         0         <1            Barium         ppm         ASTM D5185m         5         0         0            Barium         ppm         ASTM D5185m         5         0         0            Molybdenum         ppm         ASTM D5185m         5         <1         <1            Manganese         ppm         ASTM D5185m         5         <1         <1            Magnesium         ppm         ASTM D5185m         25         5         3            Calcium         ppm         ASTM D5185m         200         75         62            Phosphorus         ppm         ASTM D5185m         300         340         337            Zinc         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Visc @ 40°C         cSt         ASTM D45         32         34.8	Odor	scalar	*Visual	NORML	NORML	NORML	
Boron         ppm         ASTM D5185m         5         0         <1	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
Boron         ppm         ASTM D5185m         5         0         <1							
Barium         ppm         ASTM D5185m         5         0         0            Molybdenum         ppm         ASTM D5185m         5         <1         <1            Manganese         ppm         ASTM D5185m         5         <1         <1            Magnesium         ppm         ASTM D5185m         25         5         3            Calcium         ppm         ASTM D5185m         200         75         62            Phosphorus         ppm         ASTM D5185m         300         3400         337            Zinc         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Visc @ 40°C         cSt         ASTM D8045         0.57         0.27         0.597            Visc @ 100°C         cSt         ASTM D445         32         34.8         41.5				-			
Molybdenum         ppm         ASTM D5185m         5         <1							
Manganese         ppm         ASTM D5185m         0         0            Magnesium         ppm         ASTM D5185m         25         5         3            Calcium         ppm         ASTM D5185m         200         75         62            Phosphorus         ppm         ASTM D5185m         300         340         337            Zinc         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Acid Number (AN)         mg K0Hg         ASTM D8045         0.57         0.27         0.597            Visc @ 40°C         cSt         ASTM D445         32         34.8         41.5            Visc @ 100°C         cSt         ASTM D445         5.4         6.7							
Magnesium         ppm         ASTM D5185m         25         5         3            Calcium         ppm         ASTM D5185m         200         75         62            Phosphorus         ppm         ASTM D5185m         300         340         337            Zinc         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.27         0.597            Visc @ 40°C         cSt         ASTM D445         32         34.8         41.5            Visc @ 100°C         cSt         ASTM D445         5.4         6.7	-			5			
Calcium         ppm         ASTM D5185m         200         75         62            Phosphorus         ppm         ASTM D5185m         300         340         337            Zinc         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Acid Number (AN)         mg K0H/g         ASTM D8045         0.57         0.27         0.597            Visc @ 40°C         cSt         ASTM D445         32         34.8         41.5            Visc @ 100°C         cSt         ASTM D445         5.4         6.7	-			0.5			
Phosphorus         ppm         ASTM D5185m         300         340         337            Zinc         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Acid Number (AN)         mg K0H/g         ASTM D8045         0.57         0.27         0.597            Visc @ 40°C         cSt         ASTM D445         32         34.8         ▲ 11.5            Visc @ 100°C         cSt         ASTM D445         5.4         6.7	•						
Zinc         ppm         ASTM D5185m         370         450         404            Sulfur         ppm         ASTM D5185m         2500         2606         3868            Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.27         0.597            Visc @ 40°C         cSt         ASTM D445         32         34.8         ▲ 1.5            Visc @ 100°C         cSt         ASTM D445         5.4         6.7							
Sulfur         ppm         ASTM D5185m         2500         2606         3868            Acid Number (AN)         mg KOH/g         ASTM D8045         0.57         0.27         0.597            Visc @ 40°C         cSt         ASTM D445         32         34.8         41.5            Visc @ 100°C         cSt         ASTM D445         5.4         6.7							
Acid Number (AN)         mg KOH/g         ASTM D8045         0.57 <b>0.27</b> 0.597            Visc @ 40°C         cSt         ASTM D445         32 <b>34.8 4</b> 1.5            Visc @ 100°C         cSt         ASTM D445         5.4 <b>6.7</b>							
Visc @ 40°C         cSt         ASTM D445         32         34.8         41.5            Visc @ 100°C         cSt         ASTM D445         5.4         6.7							
Visc @ 100°C cSt ASTM D445 5.4 6.7	. ,						
VISCOSILY INDEX (VI) Scale ASTM D2270 102 132	Viscosity Index (VI)	Scale	ASTM D2270	102	152		





Contact/Location: KEITH BECKER - CARFRAIL

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