

# CONTAMINATION FLUID CONDITION

HUMBER RIVER HOSPITAL [275715]

### 62057

### **Diesel Engine**

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

# RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 15W40. Please confirm.

#### WEAR

Metal levels are typical for a new component breaking in.

# CONTAMINATION

There is no indication of any contamination in the oil.

### FLUID CONDITION

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

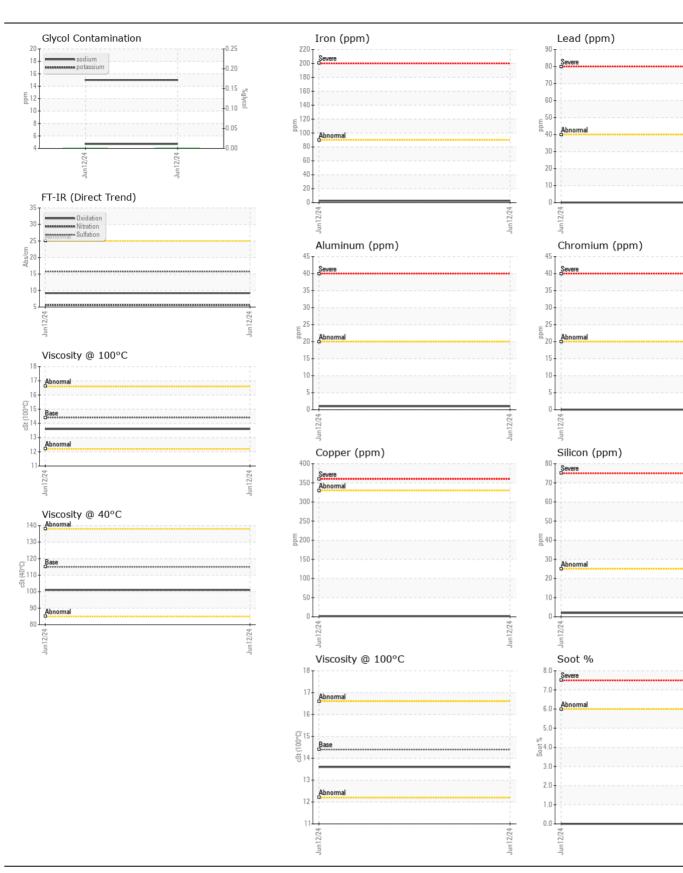
Test     U/OM     Method     Limit/Ab     Current     History1     History2       Sample Number     Cilent Info     12 Jung24         Machine Age     hrs     Cilent Info     0         Machine Age     hrs     Cilent Info     0         Machine Age     hrs     Cilent Info     0         Oil Changed     Client Info     C     Changed         Sample Status     Client Info     C     Changed         Sample Status     Visual*           Kinde ppm     ASTMD5185(m)     >20     0         Nickel     ppm     ASTMD5185(m)     >20     0         Aluminum     ppm     ASTMD5185(m)     >20     0         Aluminum     ppm     ASTMD5185(m)     >20     0         Vanadium     ppm </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Sample Date     Client Info     12 Jun 2024         Machine Age     hrs     Client Info     99         Oil Age     hrs     Client Info     0         Oil Changed     Client Info     0          Oil Changed     Client Info     Changed          Sample Status     Client Info     Changed          Sample Status     Sit MD5165m     >0          Nickel     ppm     ASTMD5165m     >2     0         Nickel     ppm     ASTMD5165m     >2     0         Aluminum     ppm     ASTMD5165m     >2     0         Lead     ppm     ASTMD5165m     >30     2         Vanadium     ppm     ASTMD5165m     >30     2         Vanadium	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age Oil Age     hrs     Client Info     99         Filter Age     hrs     Client Info     0         Filter Age     hrs     Client Info     Changed         Sample Status     Client Info     Changed         Iron     ppm     ASTM D5185(m)     >20     0        Nickel     ppm     ASTM D5185(m)     >20     0        Nickel     ppm     ASTM D5185(m)     >2     -1        Silver     ppm     ASTM D5185(m)     >2     0        Silver     ppm     ASTM D5185(m)     >2     0        Copper     ppm     ASTM D5185(m)     >15     0        Yellow Metal     scalar     Visual*     NONE     NONE        Yellow Metal     scalar     Visual*     NONE         Yellow Metal     scalar     Visual*     NONE <t< th=""><th>Sample Number</th><th></th><th>Client Info</th><th></th><th>WA0020691</th><th></th><th></th></t<>	Sample Number		Client Info		WA0020691		
Oil Age     hrs     Client Info     0         Filter Age     hrs     Client Info     Changed         Oil Changed     Client Info     Changed          Sample Status     Client Info     NORMAL          Iron     ppm     ASTMD5185(m)     >20     0         Nickel     ppm     ASTMD5185(m)     >2     0         Nickel     ppm     ASTMD5185(m)     >2     0         Aluminum     ppm     ASTMD5185(m)     >2     0         Vanadium     ppm     ASTMD5185(m)     >20     1         Vanadium     ppm     ASTMD5185(m)     >40     0         Vanadium     ppm     ASTMD5185(m)     >50     1         Vanadium     ppm     ASTMD5185(m)     >20     15	Sample Date		Client Info		12 Jun 2024		
Filter Age     hrs     Client Info     0         Oil Changed     Client Info     Changed         Sample Status     Client Info     Changed         Sample Status     Client Info     Changed         Sample Status     Visual     NORMAL         Chromium     ppm     ASTMD5185(m)     >20         Chromium     ppm     ASTMD5185(m)     >20         Silver     ppm     ASTMD5185(m)     >20     1        Lead     ppm     ASTMD5185(m)     >20     1        Vanadium     ppm     ASTMD5185(m)     >20     1        Vanadium     ppm     ASTMD5185(m)     >10         Vanadium     ppm     ASTMD5185(m)     >20     15         Silicon     ppm     ASTMD5185(m)     >20     15.7    <	Machine Age	hrs	Client Info		99		
Oil Changed     Client Info     Changed         Filter Changed     Client Info     NORMAL         Sample Status     Client Info     NORMAL         Iron     ppm     ASTM D5185(m)     >20     0        Nickel     ppm     ASTM D5185(m)     >2     <1        Nickel     ppm     ASTM D5185(m)     >2     0        Silver     ppm     ASTM D5185(m)     >2     0        Aluminum     ppm     ASTM D5185(m)     >40     0        Copper     ppm     ASTM D5185(m)     >40     0        Vanadium     ppm     ASTM D5185(m)     >15     0        Vanadium     ppm     ASTM D5185(m)     >20     15        Vellow Metal     scalar     Visual*     NONE     NONE        Vellow Metal     scalar     Visual*     NONE        Vellow Metal	Oil Age	hrs	Client Info		0		
Filter Changed Sample Status     Client Info     Changed NORMAL         Iron     ppm     ASTM D5185(m)     >90     2         Chromium     ppm     ASTM D5185(m)     >20     0         Nickel     ppm     ASTM D5185(m)     >2     0         Silver     ppm     ASTM D5185(m)     >2     0         Lead     ppm     ASTM D5185(m)     >20     1         Vanadium     ppm     ASTM D5185(m)     >20     1         Lead     ppm     ASTM D5185(m)     >20     1         Vanadium     ppm     ASTM D5185(m)     >300     2         Vanadium     ppm     ASTM D5185(m)     >25     2         Vanadium     ppm     ASTM D5185(m)     >20     15         Valadium     ppm     ASTM D5185(m)	Filter Age	hrs	Client Info		0		
Sample Status     NORMAL         Iron     ppm     ASTM D5185(m)     >90     2         Chromium     ppm     ASTM D5185(m)     >20     0         Nickel     ppm     ASTM D5185(m)     >2     0         Silver     ppm     ASTM D5185(m)     >2     0         Lead     ppm     ASTM D5185(m)     >20     1         Lead     ppm     ASTM D5185(m)     >300     2         Lead     ppm     ASTM D5185(m)     >330     2         Vanadium     ppm     ASTM D5185(m)     >330     2         Vellow Metal     scalar     Visual*     NONE     NONE         Vellow Metal     scalar     Visual*     NONE     NONE         Vellow Metal     scalar     Visual*     NONE     NONE	Oil Changed		Client Info		Changed		
Iron     ppm     ASTM D5185(m)     >90     2         Chromium     ppm     ASTM D5185(m)     >20     0         Nickel     ppm     ASTM D5185(m)     >2     0         Titanium     ppm     ASTM D5185(m)     >2     0         Silver     ppm     ASTM D5185(m)     >20     1         Aluminum     ppm     ASTM D5185(m)     >20     1         Lead     ppm     ASTM D5185(m)     >300     2         Vanadium     ppm     ASTM D5185(m)     >15     0         Valadium     ppm     ASTM D5185(m)     >20     15         Vellow Metal     scalar     Visual*     NONE     NONE         Silto     ppm     ASTM D5185(m)     >20     15         Silto     scalar	Filter Changed		Client Info		Changed		
Chromium     ppm     ASTM D5185(m)     >20     0         Nickel     ppm     ASTM D5185(m)     >2     <1         Silver     ppm     ASTM D5185(m)     >2     0         Aluminum     ppm     ASTM D5185(m)     >20     1         Aluminum     ppm     ASTM D5185(m)     >20     1         Lead     ppm     ASTM D5185(m)     >20     1         Copper     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     >15     0         Vellow Metal     scalar     Visual*     NONE     NONE         Silicon     ppm     ASTM D5185(m)     >20     15         Yellow Metal     scalar     Visual*     NONE     NONE         Yellow Metal	Sample Status				NORMAL		
Chromium     ppm     ASTM D5185(m)     >20     0         Nickel     ppm     ASTM D5185(m)     >2     <1         Silver     ppm     ASTM D5185(m)     >2     0         Aluminum     ppm     ASTM D5185(m)     >20     1         Aluminum     ppm     ASTM D5185(m)     >20     1         Lead     ppm     ASTM D5185(m)     >20     1         Copper     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     >15     0         Vellow Metal     scalar     Visual*     NONE     NONE         Silicon     ppm     ASTM D5185(m)     >20     15         Yellow Metal     scalar     Visual*     NONE     NONE         Yellow Metal					•		
Nickel     ppm     ASTM D5185(m)     >2     <1							
Titanium     ppm     ASTM D5185(m)     >2     0         Silver     ppm     ASTM D5185(m)     >20     1         Aluminum     ppm     ASTM D5185(m)     >20     1         Lead     ppm     ASTM D5185(m)     >300     2         Copper     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     >25     2         Vanadium     ppm     ASTM D5185(m)     >20     15         Vellow Metal     scalar     Visual*     NONE          Silicon     ppm     ASTM D5185(m)     >20     15         Giycol     %     ASTM D762*     >20     5.6         Sold %     % ASTM D762*<					-		
Silver     ppm     ASTM D5185(m)     >2     0        Aluminum     ppm     ASTM D5185(m)     >20     1        Lead     ppm     ASTM D5185(m)     >40     0        Copper     ppm     ASTM D5185(m)     >10         Vanadium     ppm     ASTM D5185(m)     >10         Vanadium     ppm     ASTM D5185(m)     >15     0							
Aluminum     ppm     ASTM D5185(m)     >20     1         Lead     ppm     ASTM D5185(m)     >40     0         Copper     ppm     ASTM D5185(m)     >330     2         Vanadium     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     >15     0         Yellow Metal     scalar     Visual*     NONE          Silicon     ppm     ASTM D5185(m)     >20     15         Vater     WC Method     >0.0     <-1.0          Soot %     %     ASTM D7844*     >6     0         Sulfation     Abs/rm     ASTM D71624*     >20     5.6         Sulfation     Abs/rm </th <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th>					-		
Lead     pp     ASTM D5185(m)     >40     0         Copper     ppm     ASTM D5185(m)     >330     2         Vanadium     ppm     ASTM D5185(m)     >15     0         White Metal     scalar     Visual*     NONE          Yellow Metal     scalar     Visual*     NONE          Silicon     ppm     ASTM D5185(m)     >25     2         Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >3.0     <1.0          Glycol     %     ASTM D7844'     >6     0         Solf %     %     ASTM D7154'     >30     15.7         Sulfation     Abs/rm     ASTM D7154'     >30     15.7         Sulfation     Abs/rm<			1 7		-		
Copper     ppm     ASTM D5185(m)     >330     2         Tin     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     >15     0         White Metal     scalar     Visual*     NONE          Yellow Metal     scalar     Visual*     NONE          Solicon     ppm     ASTM D5185(m)     >20     15         Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >3.0     <1.0          Water     WC Method     >0.2     NEG          Solfyol     %     ASTM D7624*     >20     5.6         Sulfation     Abs/rm     ASTM D7624*     >20     5.6         Sulfation     Abs/r					-		
Tin     ppm     ASTM D5185(m)     >15     0         Vanadium     ppm     ASTM D5185(m)     0         White Metal     scalar     Visual*     NONE     NONE         Yellow Metal     scalar     Visual*     NONE     NONE         Solicon     ppm     ASTM D5185(m)     >25     2         Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >0.2     NEG          Water     WC Method     >0.2     NEG          Soot %     %     ASTM D7922*     0.0       Soot %     Sa ASTM D7824*     >0     0.0         Soot %     %     ASTM D7824*     >0     15.7       Soitar     Scalar     Visual*     NONE					-		
Vanadium     ppm     ASTM D5185(m)     0         White Metal     scalar     Visual*     NONE     NONE         Yellow Metal     scalar     Visual*     NONE     NONE         Silicon     ppm     ASTM D5185(m)     >20     15         Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >3.0     <1.0          Water     WC Method     >0.2     NEG          Glycol     %     ASTM D7922*     0     5.6         Solf %     %     ASTM D7624*     >20     5.6         Sulfation     Abs/rm     ASTM D7141*     >30     15.7         Sulfation     Abs/rm     ASTM D7141*     >30     15.7         Sulfation     scalar     <			· · · ·		_		
White Metal     scalar     Visual*     NONE     NONE         Yellow Metal     scalar     Visual*     NONE     NONE         Silicon     ppm     ASTM D5185(m)     >20     15         Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >0.0           Glycol     %     ASTM D7822*     0.0          Solt %     %     ASTM D7624*     >20     5.6         Sulfation     Abs/rm     ASTM D7624*     >20     5.6         Sulfation     Abs/rm     ASTM D7624*     >20     5.6         Sulfation     Abs/rm     ASTM D7624*     >0     NONE         Sulfation     Asscalar     Visual*     NONE     NONE         Sand/Dirt <th></th> <th></th> <th></th> <th>&gt;15</th> <th>-</th> <th></th> <th></th>				>15	-		
Yellow Metal     scalar     Visual*     NONE     NONE         Silicon     ppm     ASTM D5185(m)     >20     15         Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >3.0     <1.0         Water     WC Method     >0.2     NEG         Glycol     %     ASTM D7922*     0.0         Soot %     %     ASTM D7824*     >0     5.6         Soot %     %     ASTM D7824*     >0     5.6         Soot %     %     ASTM D7824*     >0     5.6         Sulfation     Abs/rm     ASTM D7814*     >0     15.7         Sulfation     Abs/rm     ASTM D7814*     NONE          Sand/Dirt     scalar     Visual*     NORM     NOREde			· · · ·	NIGNE	-		
Silicon     ppm     ASTM D5185(m)     >25     2         Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >3.0     <1.0					-		
Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >3.0     <1.0         Water     WC Method     >0.2     NEG         Glycol     %     ASTM D7922*     0.0         Soot %     %     ASTM D7844*     >6     0         Nitration     Abs/cm     ASTM D7624*     >20     5.6         Sulfation     Abs/cm     ASTM D7115*     >30     15.7         Sulfation     Abs/cm     Visual*     NONE          Sulfation     scalar     Visual*     NONE          Debris     scalar     Visual*     NORML     NORE         Appearance     scalar     Visual*     NORML     NORML         Gdor     scalar     Visual*     NORML	Yellow Metal	scalar	Visual*	NONE	NONE		
Potassium     ppm     ASTM D5185(m)     >20     15         Fuel     WC Method     >3.0     <1.0         Water     WC Method     >0.2     NEG         Glycol     %     ASTM D7922*     0.0         Soot %     %     ASTM D7844*     >6     0         Nitration     Abs/cm     ASTM D7624*     >20     5.6         Sulfation     Abs/cm     ASTM D7115*     >30     15.7         Sulfation     Abs/cm     Visual*     NONE          Sulfation     scalar     Visual*     NONE          Debris     scalar     Visual*     NORML     NORE         Appearance     scalar     Visual*     NORML     NORML         Gdor     scalar     Visual*     NORML	Silicon	nnm	ASTM D5185(m)	>25	2		
Fuel     WC Method     >3.0     <1.0							
Water     WC Method     >0.2     NEG        Glycol     %     ASTM D7922*     0.0         Soot %     %     ASTM D7824*     >6     0         Nitration     Abs/cm     ASTM D7624*     >20     5.6         Sulfation     Abs/.tm     ASTM D715*     >30     15.7         Solit     scalar     Visual*     NONE     NONE         Appearance     scalar     Visual*     NORM     NORML         Odor     scalar     Visual*     >0.2     NEG         Barium     ppm     ASTM D5185(m)     250		PPIII	· · · ·		-		
Glycol%ASTM D7922*0.0Soot %%ASTM D7844*>60NitrationAbs/cmASTM D7624*>205.6SulfationAbs/lmmASTM D7415*>3015.7SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)>1585BoronppmASTM D5185(m)2504MalganeseppmASTM D5185(m)1002ManganeseppmASTM D5185(m)1002PhosphorusppmASTM D5185(m)30002250SulfurppmASTM D5185(m)1150854SulfurppmASTM D5185(m)1350975Visc @ 40°CcStASTM D7414*>259.2Visc @ 100°CcStASTM D7279(m)114.413.6							
Soot %%ASTM D7844*>60NitrationAbs/cmASTM D7624*>205.6SulfationAbs/tmmASTM D7415*>3015.7SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)>1585BoronppmASTM D5185(m)25044MalganeseppmASTM D5185(m)1000MagnesiumppmASTM D5185(m)10022MagnesiumppmASTM D5185(m)30002250PhosphorusppmASTM D5185(m)1150854SulfurppmASTM D5185(m)1350975SulfurppmASTM D5185(m)1350921Visc @ 40°CcStASTM D7414*>259.2Visc @ 100°CcStASTM D7279(m)14.4 <td< th=""><th></th><th>%</th><th></th><th>20.L</th><th></th><th></th><th></th></td<>		%		20.L			
Nitration     Abs/cm     ASTM D7624*     >20     5.6         Sulfation     Abs/.1mm     ASTM D7615*     >30     15.7         Silt     scalar     Visual*     NONE     NONE         Debris     scalar     Visual*     NONE     NONE         Sand/Dirt     scalar     Visual*     NONE     NONE         Appearance     scalar     Visual*     NORML     NORML         Odor     scalar     Visual*     NORML     NORML         Boron     ppm     ASTM D5185(m)     >158     5         Barium     ppm     ASTM D5185(m)     100          Maganesium     ppm     ASTM D5185(m)     100         Magnesium     ppm     ASTM D5185(m)     3000     2250         Phosphorus     pp				>6			
SulfationAbs/.tmmASTM D7415*>3015.7SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLCodorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1585BoronppmASTM D5185(m)100MalganeseppmASTM D5185(m)10022MagnesiumppmASTM D5185(m)30002250PhosphorusppmASTM D5185(m)1150854SulfurppmASTM D5185(m)1350975SulfurppmASTM D5185(m)425031131Visc @ 40°CcStASTM D779(m)115101Visc @ 100°CcStASTM D7279(m)14.413.6					-		
SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLCdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1585BoronppmASTM D5185(m)100BariumppmASTM D5185(m)1002MaganeseppmASTM D5185(m)1002MagnesiumppmASTM D5185(m)30002250PhosphorusppmASTM D5185(m)1150854SulfurppmASTM D5185(m)1350975SulfurppmASTM D5185(m)425031131Visc @ 40°CcStASTM D7279(m)115101Visc @ 100°CcStASTM D7279(m)14.413.6							
DebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1585BoronppmASTM D5185(m)100BariumppmASTM D5185(m)1002MolybdenumppmASTM D5185(m)1002MagnesiumppmASTM D5185(m)30002250PhosphorusppmASTM D5185(m)1350975SulfurppmASTM D5185(m)42503131Visc @ 40°CcStASTM D7279(m)115101Visc @ 100°CcStASTM D7279(m)14.413.6					-		
Sand/DirtscalarVisual*NONENORMEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1585BoronppmASTM D5185(m)2504BariumppmASTM D5185(m)100MolybdenumppmASTM D5185(m)1002MaganeseppmASTM D5185(m)45029CalciumppmASTM D5185(m)1150854PhosphorusppmASTM D5185(m)1350975SulfurppmASTM D5185(m)425031131Visc @ 40°CCStASTM D7279(m)115101Visc @ 100°CcStASTM D7279(m)14.413.6					-		
Appearance     scalar     Visual*     NORML     NORML         Odor     scalar     Visual*     NORML     NORML         Emulsified Water     scalar     Visual*     >0.2     NEG         Sodium     ppm     ASTM D5185(m)     >158     5         Boron     ppm     ASTM D5185(m)     >158     5         Barium     ppm     ASTM D5185(m)     250     4         Molybdenum     ppm     ASTM D5185(m)     10     0         Magnesium     ppm     ASTM D5185(m)     100     2         Magnesium     ppm     ASTM D5185(m)     3000     2250         Phosphorus     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Visc @ 40°							
Odor     scalar     Visual*     NORML     NORML         Emulsified Water     scalar     Visual*     >0.2     NEG         Sodium     ppm     ASTM D5185(m)     >158     5         Boron     ppm     ASTM D5185(m)     250     4         Barium     ppm     ASTM D5185(m)     10     0         Molybdenum     ppm     ASTM D5185(m)     100     2         Magnesium     ppm     ASTM D5185(m)     450     29         Calcium     ppm     ASTM D5185(m)     3000     22500         Phosphorus     ppm     ASTM D5185(m)     150     854         Sulfur     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs.					-		
Emulsified Water     scalar     Visual*     >0.2     NEG         Sodium     ppm     ASTM D5185(m)     >158     5         Boron     ppm     ASTM D5185(m)     250     4         Barium     ppm     ASTM D5185(m)     10     0         Molybdenum     ppm     ASTM D5185(m)     100     2         Manganese     ppm     ASTM D5185(m)     100     2         Magnesium     ppm     ASTM D5185(m)     3000     22500         Calcium     ppm     ASTM D5185(m)     150     854         Phosphorus     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs./imm     ASTM D7414*     >25     9.2         Visc @							
Sodium     ppm     ASTM D5185(m)     >158     5         Boron     ppm     ASTM D5185(m)     250     4         Barium     ppm     ASTM D5185(m)     250     4         Barium     ppm     ASTM D5185(m)     10     0         Molybdenum     ppm     ASTM D5185(m)     100     2         Manganese     ppm     ASTM D5185(m)     100     29         Magnesium     ppm     ASTM D5185(m)     3000     22500         Calcium     ppm     ASTM D5185(m)     3000     22500         Phosphorus     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs./Inm     ASTM D7414*     >25     9.2         Visc @ 100°C </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Boron     ppm     ASTM D5185(m)     250     4         Barium     ppm     ASTM D5185(m)     10     0         Molybdenum     ppm     ASTM D5185(m)     100     2         Manganese     ppm     ASTM D5185(m)     100     2         Magnesium     ppm     ASTM D5185(m)     450     29         Calcium     ppm     ASTM D5185(m)     3000     22500         Phosphorus     ppm     ASTM D5185(m)     1150     854         Zinc     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7279(m)     115     101         Visc @ 100°C     CSt     ASTM D7279(m)     14.4     13.6							
Barium     ppm     ASTM D5185(m)     10     0         Molybdenum     ppm     ASTM D5185(m)     100     2         Manganese     ppm     ASTM D5185(m)     100     2         Magnesium     ppm     ASTM D5185(m)     450     29         Calcium     ppm     ASTM D5185(m)     3000     22500         Phosphorus     ppm     ASTM D5185(m)     1150     854         Zinc     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 100°C     CSt     ASTM D7279(m)     115     101	Sodium	ppm	ASTM D5185(m)	>158	5		
Molybdenum     ppm     ASTM D5185(m)     100     2         Manganese     ppm     ASTM D5185(m)     100     29         Magnesium     ppm     ASTM D5185(m)     450     29         Calcium     ppm     ASTM D5185(m)     3000     22500         Phosphorus     ppm     ASTM D5185(m)     1150     854         Zinc     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101	Boron	ppm	ASTM D5185(m)	250	4		
Molybdenum     ppm     ASTM D5185(m)     100     2         Manganese     ppm     ASTM D5185(m)     0         Magnesium     ppm     ASTM D5185(m)     450     29         Calcium     ppm     ASTM D5185(m)     3000     2250         Phosphorus     ppm     ASTM D5185(m)     1150     854         Sulfur     ppm     ASTM D5185(m)     1350     975         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101	Barium	ppm	ASTM D5185(m)	10	0		
Magnesium     ppm     ASTM D5185(m)     450     29         Calcium     ppm     ASTM D5185(m)     3000     2250         Phosphorus     ppm     ASTM D5185(m)     1150     854         Zinc     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101         Visc @ 100°C     cSt     ASTM D7279(m)     14.4     13.6	Molybdenum	ppm		100	2		
Calcium     ppm     ASTM D5185(m)     3000     2250         Phosphorus     ppm     ASTM D5185(m)     1150     854         Zinc     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101         Visc @ 100°C     cSt     ASTM D7279(m)     14.4     13.6	Manganese	ppm	ASTM D5185(m)		0		
Phosphorus     ppm     ASTM D5185(m)     1150     854         Zinc     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101         Visc @ 100°C     cSt     ASTM D7279(m)     14.4     13.6	Magnesium	ppm	ASTM D5185(m)	450	29		
Zinc     ppm     ASTM D5185(m)     1350     975         Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101         Visc @ 100°C     cSt     ASTM D7279(m)     14.4     13.6	Calcium	ppm	ASTM D5185(m)	3000	2250		
Sulfur     ppm     ASTM D5185(m)     4250     3131         Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101         Visc @ 100°C     cSt     ASTM D7279(m)     14.4     13.6	Phosphorus	ppm	ASTM D5185(m)	1150	854		
Oxidation     Abs/.1mm     ASTM D7414*     >25     9.2         Visc @ 40°C     cSt     ASTM D7279(m)     115     101         Visc @ 100°C     cSt     ASTM D7279(m)     14.4     13.6	Zinc	ppm	ASTM D5185(m)	1350	975		
Visc @ 40°C     cSt     ASTM D7279(m)     115     101         Visc @ 100°C     cSt     ASTM D7279(m)     14.4     13.6	Sulfur	ppm	ASTM D5185(m)	4250	3131		
Visc@100°C cSt ASTM D7279(m) 14.4 13.6	Oxidation	Abs/.1mm	ASTM D7414*	>25	9.2		
	Visc @ 40°C	cSt	ASTM D7279(m)	115	101		
Viscosity Index (VI) Scale ASTM D2270* 126 134	Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.6		
	Viscosity Index (VI)	Scale	ASTM D2270*	126	134		

WEAR

NORMAL

NORMAL

NORMAL



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Wajax Power Systems CALA Sample No. Received 10 Diesel Drive : WA0020691 : 03 Jul 2024 Lab Number : 02645158 Tested Toronto, ON : 04 Jul 2024 ISO 17025:2017 Accredited : 04 Jul 2024 - Wes Davis Unique Number : 5802697 CA M8W 2T8 Diagnosed Laboratory Test Package : MOB 1 (Additional Tests: Glycol, KV40, VI, Visual) Contact: David Gilkes To discuss this sample report, contact Customer Service at 1-800-268-2131. dgilkes@wajax.com T: (416)259-3281 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: (416)251-6191 Validity of results and interpretation are based on the sample and information as supplied.

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Contact/Location: David Gilkes - HARTOR Page 2 of 2