

# WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

#### Machine Id **PORT GEARBOX** Component **Port Gearbox** Fluid **SHELL 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### **WEAR**

All component wear rates are normal.

#### CONTAMINATION

There is no indication of any contamination in the oil.

## FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Test    UOM    Method    Limit/An    Current    History1    History2      Sample Number    Client Info    30 Aug 2023        Machine Age    hrs    Client Info    500        Machine Age    hrs    Client Info    500        Oil Age    hrs    Client Info    500        Oil Changed    Client Info    500        Sample Status    Client Info    Changed        Iron    ppm    ASTMD5185(m)<>10    4        Sample Status    ppm    ASTMD5185(m)<>10         Nickel    ppm    ASTMD5185(m)<>10         Aluminum    ppm    ASTMD5185(m)    >5    1        Aluminum    ppm    ASTMD5185(m)    >6         Aluminum    ppm    ASTMD5185(m)    >6							
Sample Date    Client Info    30 Aug 2023        Machine Age    hrs    Client Info    2258        Oil Age    hrs    Client Info    500        Filter Age    hrs    Client Info    Changed        Filter Changed    Client Info    Changed        Sample Status    NORMAL         Iron    ppm    ASTM D5185(m)    >10    0        Nickel    ppm    ASTM D5185(m)    >10    <1        Aluminum    ppm    ASTM D5185(m)    >10    <1        Silver    ppm    ASTM D5185(m)    >65    <1        Aluminum    ppm    ASTM D5185(m)    >80    2        Vanadium    ppm    ASTM D5185(m)    >80    2        Vanadium    ppm	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age    hrs    Client Info    2258        Oil Age    hrs    Client Info    500        Filter Age    hrs    Client Info    Changed        Filter Changed    Client Info    Changed        Filter Changed    Client Info    Changed        Sample Status    NORMAL        Iron    ppm    ASTM D5185(m)    >10    0        Nickel    ppm    ASTM D5185(m)    >10         Silver    ppm    ASTM D5185(m)    >50    1        Lead    ppm    ASTM D5185(m)    >80    2        Vanadium    ppm    ASTM D5185(m)    >80         Vanadium    ppm    ASTM D5185(m)    >20    3        Vale    whotelal    scalar	Sample Number		Client Info		WC0754207		
Oil AgehrsClient Info500Filter AgehrsClient Info500Oil ChangedClient InfoChangedFilter ChangedClient InfoChangedSample StatusNORMALIronppmASTM D5185(m)>100NickelppmASTM D5185(m)>10c1NickelppmASTM D5185(m)>10c1SilverppmASTM D5185(m)>551LeadppmASTM D5185(m)>65c1CopperppmASTM D5185(m)>802VanadiumppmASTM D5185(m)>800VanadiumppmASTM D5185(m)>800VanadiumppmASTM D5185(m)>203ValdemscalarVisual*NONENONESiliconppmASTM D5185(m)>203SuliconppmASTM D5185(m)>207SuliconppmASTM D5185(m)>207SuliconppmASTM D5185(m)>207SuliconppmASTM D5185(m)ScalarNORE	Sample Date		Client Info		30 Aug 2023		
Filter Age Oil ChangedIsoClient Info500Oil ChangedClient InfoChangedFilter ChangedClient InfoChangedSample StatusNORMALIronppmASTMD5185(m)>1000ChromiumppmASTMD5185(m)>1000NickelppmASTMD5185(m)>100TitaniumppmASTMD5185(m)>501AluminumppmASTMD5185(m)>551LeadppmASTMD5185(m)>802VanadiumppmASTMD5185(m)>802VanadiumppmASTMD5185(m)>203Yellow MetalscalarVisual*NONENONESiliconppmASTMD5185(m)>203SultscalarVisual*NONENONESultscalarVisual*NONENONESodiumppmASTMD5185(m)>2.2NEGSultscalarVisual*NONENONESultscalarVisual*NONENORESodiumppmASTMD5185(m)-1502 <th>Machine Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>2258</th> <th></th> <th></th>	Machine Age	hrs	Client Info		2258		
Oil ChangedClient InfoChangedFilter ChangedClient InfoChangedSample StatusVision >100IronppmASTMD5185(m) >1000NickelppmASTMD5185(m) >100<1NickelppmASTMD5185(m) >100<1TitaniumppmASTMD5185(m) >501AluminumppmASTMD5185(m) >55<1LeadppmASTMD5185(m) >55<1CopperppmASTMD5185(m) >55<1VanadiumppmASTMD5185(m) >55<1VanadiumppmASTMD5185(m) >55<1VanadiumppmASTMD5185(m) >56<1VanadiumppmASTMD5185(m) >501VanadiumppmASTMD5185(m) >501Vatervisual*NONENONESiliconppmASTMD5185(m) >207Vatervisual*NONENONESoliumppmASTMD5185(m) >207Sand/DirtscalarVisual*NONENONEDebrisscalarVisual*NORESoliumppmASTMD5185(m)-0.2NEGBoronppmASTMD5185(m)-1502BoronppmASTMD5185(m)-0.5BariumppmASTMD5185(m)0	Oil Age	hrs	Client Info		500		
Filter Changed    Client Info    Changed       Sample Status    NORMAL        Iron    ppm    ASTM DS185(m)    >100    0       Normium    ppm    ASTM DS185(m)    >10    0       Nickel    ppm    ASTM DS185(m)    >10    <11       Nickel    ppm    ASTM DS185(m)    >0        Silver    ppm    ASTM DS185(m)    >5    1        Aluminum    ppm    ASTM DS185(m)    >5    1        Aluminum    ppm    ASTM DS185(m)    >6    2        Aluminum    ppm    ASTM DS185(m)    >8    0        Audium    ppm    ASTM DS185(m)    >8    0	Filter Age	hrs	Client Info		500		
Sample Status    NORMAL        Iron    ppm    ASTMD5185(m)    >150    4       Chromium    ppm    ASTMD5185(m)    >10    0       Nickel    ppm    ASTMD5185(m)    >10    <1       Titanium    ppm    ASTMD5185(m)    >10    <1       Aluminum    ppm    ASTMD5185(m)    >6    <1       Aluminum    ppm    ASTMD5185(m)    >65    <1       Aluminum    ppm    ASTMD5185(m)    >65    <1       Lead    ppm    ASTMD5185(m)    >80    2       Vanadium    ppm    ASTMD5185(m)    >80    0       Vanadium    ppm    ASTMD5185(m)    >80    0       Valadium    ppm    ASTMD5185(m)    >20    7       Yellow Metal    scalar    Visual*    NONE    NONE       Soliicon	Oil Changed		Client Info		Changed		
Iron    ppm    ASTM D5185(m)    >150    4        Chromium    ppm    ASTM D5185(m)    >10    0        Nickel    ppm    ASTM D5185(m)    >10    <1        Titanium    ppm    ASTM D5185(m)    0        Silver    ppm    ASTM D5185(m)    >55    1        Aluminum    ppm    ASTM D5185(m)    >60         Lead    ppm    ASTM D5185(m)    >80    2        Tin    ppm    ASTM D5185(m)    >80    0        Vanadium    ppm    ASTM D5185(m)    >20    7        Vellow Metal    scalar    Visual*    NONE    NONE	Filter Changed		Client Info		Changed		
Chromium    ppm    ASTM D5185(m)    >10    0      Nickel    ppm    ASTM D5185(m)    >10    <1       Titanium    ppm    ASTM D5185(m)    >0        Silver    ppm    ASTM D5185(m)    >5    1        Aluminum    ppm    ASTM D5185(m)    >65    <1        Lead    ppm    ASTM D5185(m)    >60    2        Copper    ppm    ASTM D5185(m)    >80    2        Vanadium    ppm    ASTM D5185(m)    >80    0        White Metal    scalar    Visual*    NONE    NONE        Yellow Metal    scalar    Visual*    NONE    NONE        Silicon    ppm    ASTM D5185(m)    >20    7        Suft    scalar    Visual*    NONE    NONE	Sample Status				NORMAL		
Chromium    ppm    ASTM D5185(m)    >10    0      Nickel    ppm    ASTM D5185(m)    >10    <1       Titanium    ppm    ASTM D5185(m)    >0        Silver    ppm    ASTM D5185(m)    >5    1        Aluminum    ppm    ASTM D5185(m)    >65    <1        Lead    ppm    ASTM D5185(m)    >60    2        Copper    ppm    ASTM D5185(m)    >80    2        Vanadium    ppm    ASTM D5185(m)    >80    0        White Metal    scalar    Visual*    NONE    NONE        Yellow Metal    scalar    Visual*    NONE    NONE        Silicon    ppm    ASTM D5185(m)    >20    7        Suft    scalar    Visual*    NONE    NONE							
Nickel    ppm    ASTM D5185(m)    >10    <1			. ,		-		
Titanium    ppm    ASTM D5185(m)    0       Silver    ppm    ASTM D5185(m)    0       Aluminum    ppm    ASTM D5185(m)    >5    1       Lead    ppm    ASTM D5185(m)    >60    2       Copper    ppm    ASTM D5185(m)    >80    2       Tin    ppm    ASTM D5185(m)    >80    0       Vanadium    ppm    ASTM D5185(m)    >80    0       Vanadium    ppm    ASTM D5185(m)    >80    0       Valadium    ppm    ASTM D5185(m)    >20    3       Vellow Metal    scalar    Visual*    NONE    NONE       Vellow Metal    scalar    Visual*    NONE    NONE       Silicon    ppm    ASTM D5185(m)    >20    7        Solit    scalar    Visual*    NONE    NONE		ppm			-		
Silver    ppm    ASTM D5185(m)    0       Aluminum    ppm    ASTM D5185(m)    >50    1       Lead    ppm    ASTM D5185(m)    >65    <1       Copper    ppm    ASTM D5185(m)    >80    2       Tin    ppm    ASTM D5185(m)    >8    0       Vanadium    ppm    ASTM D5185(m)    >8    0       Vanadium    ppm    ASTM D5185(m)    >8    0       Vanadium    ppm    ASTM D5185(m)    >20    3       Yellow Metal    scalar    Visual*    NONE    NONE       Silicon    ppm    ASTM D5185(m)    >20    3       Silit    scalar    Visual*    NONE    NONE       Debris    scalar    Visual*    NORM    NORM        Appearance    scalar    Visual*    NORM    NORM		ppm	( )	>10			
Aluminum    ppm    ASTM D5185(m)    >5    1       Lead    ppm    ASTM D5185(m)    >655    <1       Copper    ppm    ASTM D5185(m)    >80    2        Tin    ppm    ASTM D5185(m)    >80    2        Vanadium    ppm    ASTM D5185(m)    >8    0        Vanadium    ppm    ASTM D5185(m)    >8    0        Vanadium    ppm    ASTM D5185(m)    >20    NONE        Yellow Metal    scalar    Visual*    NONE         Silicon    ppm    ASTM D5185(m)    >20    7        Water    wC Method    >0.2    NEG        Sand/Dirt    scalar    Visual*    NONE    NONE        Appearance    scalar    Visual*    NORM    NO		ppm	( /		-		
Lead    ppm    ASTM D5185(m)    >65    <1		ppm	. ,		-		
Copper    ppm    ASTM D5185(m)    >80    2        Tin    ppm    ASTM D5185(m)    >8    0        Vanadium    ppm    ASTM D5185(m)    >8    0        White Metal    scalar    Visual*    NONE    NONE        Yellow Metal    scalar    Visual*    NONE    NONE        Silicon    ppm    ASTM D5185(m)    >20 <b>3</b> Vater    WC Method    >0.2    NEG        Silit    scalar    Visual*    NONE        Sad/Dirit    scalar    Visual*    NORE        Appearance    scalar    Visual*    NORML    NORML       Odor    scalar    Visual*    >0.2    NEG        Sodium    ppm    ASTM D5185(m)    >150    2		ppm					
Prip    Prip    ASTM D5185(m)    >8    O		ppm	. ,				
VanadiumppmASTM D5185(m)0White MetalscalarVisual*NONENONEYellow MetalscalarVisual*NONENONESiliconppmASTM D5185(m)>203PotassiumppmASTM D5185(m)>207WaterWC Method>0.2NEGSilitscalarVisual*NONENONESiltscalarVisual*NONENONEDebrisscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>1502MolybdenumppmASTM D5185(m)0MarganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)1102MarganeseppmASTM D5185(m)1142PhosphorusppmASTM D5185(m)1142SulfurppmASTM D5185(m)1142Marganesiump	Copper	ppm	ASTM D5185(m)	>80	2		
White MetalscalarVisual*NONENONEYellow MetalscalarVisual*NONENONESiliconppmASTM D5185(m)>203PotassiumppmASTM D5185(m)>207WaterWC Method>0.2NEGSilitscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NOREAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORLNORMLBoronppmASTM D5185(m)>1502BariumppmASTM D5185(m)10MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0ManganeseppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)1142PhosphorusppmASTM D5185(m)SulfurppmASTM D5185(m)1142	Tin	ppm	ASTM D5185(m)	>8	0		
Yellow MetalscalarVisual*NONENONESiliconppmASTM D5185(m)>203PotassiumppmASTM D5185(m)>207WaterWC Method>0.2NEGSilitscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>100MalganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)21MagnesiumppmASTM D5185(m)0PhosphorusppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)1142SulfurppmASTM D5185(m)1142	Vanadium	ppm	ASTM D5185(m)		0		
SiliconppmASTM D5185(m)>203PotassiumppmASTM D5185(m)>207WaterWC Method>0.2NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLMulsified WaterscalarVisual*NORMLSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>100MolybdenumppmASTM D5185(m)Ino1ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)Ino95SulfurppmASTM D5185(m)SulfurppmASTM D5185(m)MagnesiumppmASTM D5185(m)PhosphorusppmASTM D5185(m)SulfurppmASTM D5185(m)	White Metal	scalar	Visual*	NONE	NONE		
PotassiumppmASTM D5185(m)>207WaterWC Method>0.2NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGBoronppmASTM D5185(m)>1502BariumppmASTM D5185(m)0MalganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)24PhosphorusppmASTM D5185(m)11095SulfurppmASTM D5185(m)1142SulfurppmASTM D5185(m)	Yellow Metal	scalar	Visual*	NONE	NONE		
WaterWC Method>0.2NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*NORMLSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>100MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)11095SulfurppmASTM D5185(m)1142SulfurppmASTM D5185(m)	Silicon						
WaterWC Method>0.2NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>1502BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)1142SulfurppmASTM D5185(m)51142	Onicon	ppm	ASTM D5185(m)	>20	3		
DebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>178BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)11095SulfurppmASTM D5185(m)1142			( )		-		
DebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>178BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)11095SulfurppmASTM D5185(m)1142	Potassium		ASTM D5185(m)	>20	7		
Sand/DirtscalarVisual*NONENOREAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)>1.02NEGBoronppmASTM D5185(m)>1502BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)24PhosphorusppmASTM D5185(m)2199ZincppmASTM D5185(m)1142SulfurppmASTM D5185(m)SulfurppmASTM D5185(m)SulfurppmASTM D5185(m)SulfurppmASTM D5185(m)SulfurppmASTM D5185(m)	Potassium Water	ppm	ASTM D5185(m) WC Method	>20 >0.2	7 NEG		 
OdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>178BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)2199PhosphorusppmASTM D5185(m)11095ZincppmASTM D5185(m)1142SulfurppmASTM D5185(m)13250	Potassium Water Silt	ppm scalar	ASTM D5185(m) WC Method Visual*	>20 >0.2 NONE	7 NEG NONE		
OdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)>1502BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0PhosphorusppmASTM D5185(m)2199ZincppmASTM D5185(m)1142SulfurppmASTM D5185(m)13250	Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185(m) WC Method Visual* Visual*	>20 >0.2 NONE NONE	7 NEG NONE NONE		
Emulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>1502BoronppmASTM D5185(m)178BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)10ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)24PhosphorusppmASTM D5185(m)2199ZincppmASTM D5185(m)1142SulfurppmASTM D5185(m)13250	Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual*	>20 >0.2 NONE NONE NONE	7 NEG NONE NONE NONE		
Sodium  ppm  ASTM D5185(m)  >150  2     Boron  ppm  ASTM D5185(m)  >178      Barium  ppm  ASTM D5185(m)  0      Barium  ppm  ASTM D5185(m)  0      Molybdenum  ppm  ASTM D5185(m)  0      Manganese  ppm  ASTM D5185(m)  0      Magnesium  ppm  ASTM D5185(m)  0      Calcium  ppm  ASTM D5185(m)  24      Phosphorus  ppm  ASTM D5185(m)  2199      Zinc  ppm  ASTM D5185(m)  1095      Sulfur  ppm  ASTM D5185(m)  1142	Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NONE	7 NEG NONE NONE NONE NORML		
Boron    ppm    ASTM D5185(m)    178       Barium    ppm    ASTM D5185(m)    0       Molybdenum    ppm    ASTM D5185(m)    0       Molybdenum    ppm    ASTM D5185(m)    0       Manganese    ppm    ASTM D5185(m)    0       Magnesium    ppm    ASTM D5185(m)    0       Calcium    ppm    ASTM D5185(m)    24       Phosphorus    ppm    ASTM D5185(m)    2199       Zinc    ppm    ASTM D5185(m)    1095       Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NORML NORML	7 NEG NONE NONE NORML NORML		
Barium    ppm    ASTM D5185(m)    0       Molybdenum    ppm    ASTM D5185(m)    10       Manganese    ppm    ASTM D5185(m)    0       Magnesium    ppm    ASTM D5185(m)    0       Magnesium    ppm    ASTM D5185(m)    0       Calcium    ppm    ASTM D5185(m)    24       Phosphorus    ppm    ASTM D5185(m)    2199       Zinc    ppm    ASTM D5185(m)    1095       Sulfur    ppm    ASTM D5185(m)    1142	Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NORML NORML	7 NEG NONE NONE NORML NORML		
Molybdenum    ppm    ASTM D5185(m)    10       Manganese    ppm    ASTM D5185(m)    0       Magnesium    ppm    ASTM D5185(m)    0       Magnesium    ppm    ASTM D5185(m)    24       Calcium    ppm    ASTM D5185(m)    2199       Phosphorus    ppm    ASTM D5185(m)    1095       Zinc    ppm    ASTM D5185(m)    1142       Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG	  	
Manganese    ppm    ASTM D5185(m)    0       Magnesium    ppm    ASTM D5185(m)    24       Calcium    ppm    ASTM D5185(m)    2199       Phosphorus    ppm    ASTM D5185(m)    1095       Zinc    ppm    ASTM D5185(m)    1142       Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG	  	
Magnesium    ppm    ASTM D5185(m)    24       Calcium    ppm    ASTM D5185(m)    2199       Phosphorus    ppm    ASTM D5185(m)    1095       Zinc    ppm    ASTM D5185(m)    1142       Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG 2 178		
Calcium    ppm    ASTM D5185(m)    2199        Phosphorus    ppm    ASTM D5185(m)    1095        Zinc    ppm    ASTM D5185(m)    1142        Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG 2 178 0		
Phosphorus    ppm    ASTM D5185(m)    1095       Zinc    ppm    ASTM D5185(m)    1142       Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG 2 178 0 10		
Zinc    ppm    ASTM D5185(m)    1142       Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG 2 178 0 10		
Sulfur    ppm    ASTM D5185(m)    3250	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG 2 178 0 10 0 24		
	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML 2 178 0 10 0 24 2199		
Visc @ 40°C cSt ASTM D7279(m) 69.3	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG 2 178 0 10 0 24 2199 1095		
	Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Manganese Magnesium Calcium Phosphorus	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	7 NEG NONE NONE NORML NORML NEG 2 178 0 10 0 24 2199 1095 1142		

Contact/Location: Chief Engineer - CARIBOUIS





