Station **POWER GENERATION PRODUCTS OIL ANALYSIS REPORT**

Machine Id **215 INDUSTRIAL PKWY AURORA TOWN OF AURORA TOWN OF AURORA** ompone

Rear Diesel Engine

ESSO XD-3 EXTRA 15W40 (40 LTR)

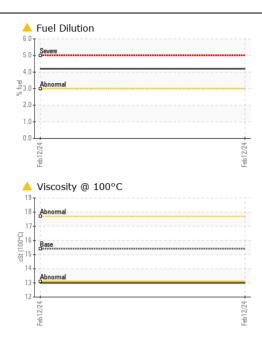
RECOMMENDATION

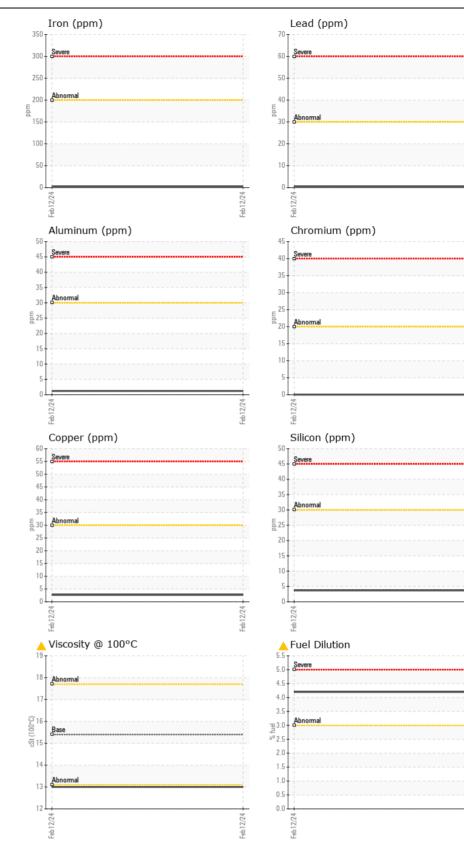
WEAR	

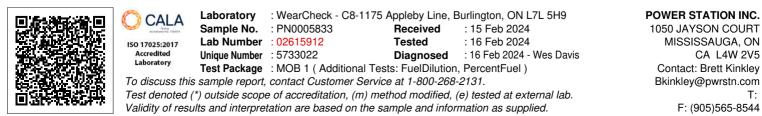
..... **CONTAMINATION**

RECOMMENDATION Test UOM Method Unterbage Headort Headort Headort The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Sample Date Client Hol IP 80000000 IP 800000000 IP 80000000 IP 800000000 IP 800000000 IP 800000000 IP 800000000 IP 80000000000 IP 80000000000000 IP 8000000000000000000000000000000000000	ESSU XD-3 EXTRA 15W4U (40 LTR)							
Sample DateCleant lineLLL	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
recommend an early resample to monitor this condition.Single DataClark lawClark lawCla		Sample Number		Client Info		PN0005833		
Oil Age hrs Client Info 20 IIIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		Sample Date		Client Info		12 Feb 2024		
Filter Age OII changedClient IntoO000 <th>Machine Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>1390</th> <th></th> <th></th>		Machine Age	hrs	Client Info		1390		
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Sample StatusNANORMPinoSANORMPinoPi		Oil Changed		Client Info		Changed		
WEAR Iron pm All DBBB/II >200 2 1 All component wear rates are normal. Chromium pm ASIND5807 >2 C1 Nickel pm ASIND5807 >2 C1 Nickel pm ASIND5807 >2 C0 Muminum pm ASIND5807 >2 C0 Aluminum pm ASIND5807 >20 C1 Copper pm ASIND5807 >30 C1 Vandium pm ASIND5807 >30 C1 Van		Filter Changed		Client Info		Changed		
All component wear rates are normal. Chromium ppm N100186 >20 0 Nickel ppm ASTUDISE >2 C1 Titanium ppm ASTUDISE >2 0 Titanium ppm ASTUDISE >2 0 Aluminum ppm ASTUDISE >30 1 Aluminum ppm ASTUDISE >30 1 Copper ppm ASTUDISE >30 1 Copper ppm ASTUDISE >30 1 Copper ppm ASTUDISE >30 1 There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. Silcon ppm ASTUDISE >30 4 Yead Yead Yead Yead Yead Mare confuse yead Silcon ppm ASTUDISE >30 4 There is a moderate amount of fuel present in the oil. Tests confirm the grade Silcon Yead Water Solfward %c ASTM0783 >.0 Ast.2 Soldyo		Sample Status				ABNORMAL		
All component wear rates are normal. Chromium ppm N100186 >20 0 Nickel ppm ASTUDISE >2 C1 Titanium ppm ASTUDISE >2 0 Titanium ppm ASTUDISE >2 0 Aluminum ppm ASTUDISE >30 1 Aluminum ppm ASTUDISE >30 1 Copper ppm ASTUDISE >30 1 Copper ppm ASTUDISE >30 1 Copper ppm ASTUDISE >30 1 There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. Silcon ppm ASTUDISE >30 4 Yead Yead Yead Yead Yead Mare confuse yead Silcon ppm ASTUDISE >30 4 There is a moderate amount of fuel present in the oil. Tests confirm the grade Silcon Yead Water Solfward %c ASTM0783 >.0 Ast.2 Soldyo	WEAR	Iron	maa	ASTM D5185(m)	>200	2		
NickelNicke								
Titanium Finalium Strik Distign S2 0 Silver ppm ASTM Distign -2 0.0 Aluminum ppm ASTM Distign Lead ppm ASTM Distign Copper ppm ASTM Distign	All component wear rates are normal.							
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Atuminum ppm ASTM 2685m >30 1 Lead ppm ASTM 2685m >30 -1 Copper ppm ASTM 2685m >30 3 Copper ppm ASTM 2685m >30 3 Vanadum ppm ASTM 2685m >0 CONTAMINATION ppm ASTM 2585m >0 4.2 There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. Potassium ppm ASTM 2585m >-0 4.2 Glocol ppm ASTM 2585m >.0 ALE Nater 1 VC Method >.0 ALE Glocol VC Method >.0 NEG Nitration Abstm ASTM 2585m ASTM 2585m Subdiation Abstm ASTM 2585m ASTM 2585m Nitration Abstm ASTM 2585m ASTM 2585m Subdiaton Abstm ASTM 2585m								
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Copper TinSTM D3186; PS-303TinpmASTM D5185; V								
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Silicon ppm ASTM D5185(n) >0 4 Presence of fuel in the oil. Potassim pm ASTM D5185(n) >0 6 Fuele % ASTM D5185(n) >0 6 Water [0] % ASTM D7583' >3.0 AEG Glycol Water [0] Wolderdo >0.2 NEG Glycol Water [0] Water 30 0 Soto % % ASTM D784' >30 0 Soto % % ASTM D784' >30 0 Sulfation Abs/cm ASTM D784' >30 0 FUID CONDITION Sulfation Abs/cm ASTM D7855(n) Boron pm ASTM D5185(n) - 13 Ibige serviceable due t		Vanadium		ASTM D5185(m)				
Potassium ppm ASTM D51850 >20 6 Fuel % ASTM D51850 >3.0 ▲ 4.2 Water % ASTM D7533 >3.0 ▲ 4.2 Water WC Method >0.2 NEG Glycol WC Method >0.2 NEG Soto % % ASTM D7844 >3 0 Nitration Abs/ ASTM D7824 >20 5.6 Soto % % ASTM D7824 >20 5.6 Sulfation Abs/ ASTM D7824 >20 5.6 Sulfation Abs/ ASTM D7824 >20 5.6 Sulfation Abs/ ASTM D7824 >20 NEG Sulfation Abs/ ASTM D7824 >20 NEG Sulfation Ppm ASTM D7856 >0 0 Full Spresent in the oil and is lowering the viscosity. The oil is motion spressone spressone spressone of contaminants. Solium ppm								
Fuel % ASTM D7583 >.4 4.2 Water % ASTM D7583 >.4 4.2 Glycol WC Method >.0.2 NEG Glycol WC Method >.0.2 NEG Soot % % ASTM D7834 >.30 0 Soot % % ASTM D7844 >.30 0 Soot % Ast MSTM D7844 >.30 0 Sulfation Ast AstM D7844 >.30 0 FULID CONDITION Sodium ppm ASTM D518(m) Fuel is present in the oil and is lowering the viscosity. The oil field pom ASTM D518(m) <td< th=""><th>CONTAMINATION</th><th>Silicon</th><th>ppm</th><th>ASTM D5185(m)</th><th>>30</th><th>4</th><th></th><th></th></td<>	CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>30	4		
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SulfationAbs/1mmASTM D7415>3020.0Fullsified WatescalarVisual*>0.2NEGFLUID CONDITIONSodiumppmASTM D5185(m)>19222Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.SodiumppmASTM D5185(m)>100MolybdenumppmASTM D5185(m)I0MolybdenumppmASTM D5185(m)II1MaganeseppmASTM D5185(m)IIIICalciumppmASTM D5185(m)IIIIIIIIPhosphorusppmASTM D5185(m)IS00II </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
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FLUID CONDITION Sodium ppm ASTM D5185(m) >192 2 Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants. Boron ppm ASTM D5185(m) I								
Boron ppm ASTM D5185(m) Image: Constraint of the presence of contaminants. Barium ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 0 Manganese ppm ASTM D5185(m) Image: Constraint of the presence of contaminants. Image: Constraint of the presence of constra		Emulsified Water	scalar	Visual*	>0.2	NEG		
Indentify the one of contaminants. Barium ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 13 Manganese ppm ASTM D5185(m) 13 Magnesium ppm ASTM D5185(m) 13 Magnesium ppm ASTM D5185(m) 180 Calcium ppm ASTM D5185(m) 3780 1876 Phosphorus ppm ASTM D5185(m) 3780 1806 Zinc ppm ASTM D5185(m) 1300 1060 Sulfur ppm ASTM D5185(m) 1500 1060 Oxidation Abs/1mi ASTM D5185(m) 3800 2972		Sodium	ppm	ASTM D5185(m)	>192	2		
Ionger serviceable due to the presence of contaminants.BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)130111<		Boron	ppm	ASTM D5185(m)		146		
ManganeseppmASTM D5185(m) </th <th>Barium</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th></th> <th>0</th> <th></th> <th></th>		Barium	ppm	ASTM D5185(m)		0		
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Calcium ppm ASTM D5185(m) 3780 1876 Phosphorus ppm ASTM D5185(m) 1370 960 Zinc ppm ASTM D5185(m) 1500 1060 Sulfur ppm ASTM D5185(m) 3800 2972 Oxidation Abs/.1mm ASTM D7414* >25 16.3		Manganese	ppm	ASTM D5185(m)		<1		
Phosphorus ppm ASTM D5185(m) 1370 960 Zinc ppm ASTM D5185(m) 1500 1060 Sulfur ppm ASTM D5185(m) 3800 2972 Oxidation Abs/.1mm ASTM D7414* >25 16.3		Magnesium	ppm	ASTM D5185(m)		180		
Zinc ppm ASTM D5185(m) 1500 1060 Sulfur ppm ASTM D5185(m) 3800 2972 Oxidation Abs/.1mm ASTM D7414* >25 16.3		Calcium	ppm	ASTM D5185(m)	3780	1876		
Sulfur ppm ASTM D5185(m) 3800 2972 Oxidation Abs/.1mm ASTM D7414* >25 16.3		Phosphorus	ppm	ASTM D5185(m)	1370	960		
Oxidation Abs/.1mm ASTM D7414* >25 16.3		Zinc	ppm	ASTM D5185(m)	1500	1060		
		Sulfur	ppm	ASTM D5185(m)	3800	2972		
Visc @ 100°C cSt ASTM D7279(m) 15.4 (13.0)		Oxidation	Abs/.1mm	ASTM D7414*	>25	16.3		
		Visc @ 100°C	cSt	ASTM D7279(m)	15.4	1 3.0		

Contact/Location: Brett Kinkley - POWMIS







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