MOB VOLVO	
OIL ANALYSIS REPORT	

NORMAL WEAR CONTAMINATION NORMAL NORMAL FLUID CONDITION



Blythe & Zachary JV CSA - 185 SC [BLYTHE] VOLVO EC480E 3004957 (S/N 480E310929)

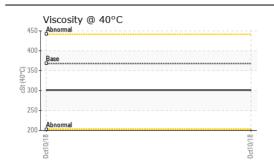
Right Swing Drive

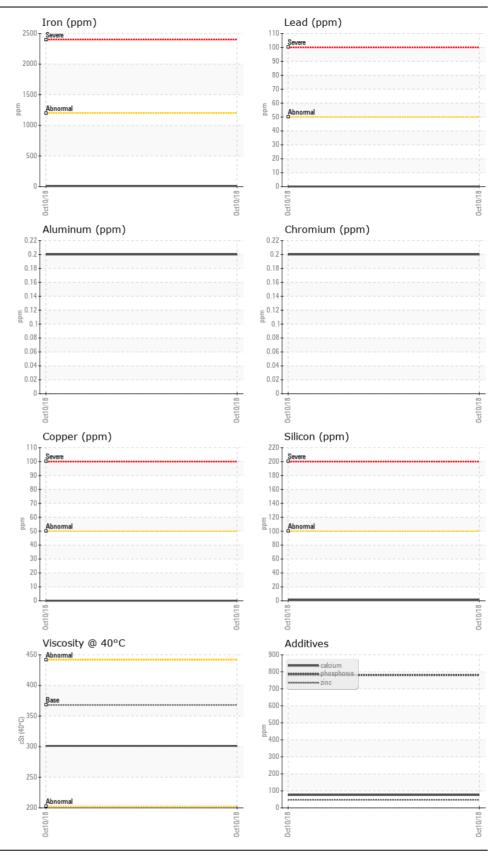
GEAR OIL SAE 85W140 (--- GAL)

RECOMMENDATION	Test
Resample at the next service interval to monitor.	Sample
	Sample
	Machir
	Oil Age
	Filter A
	Oil Cha
	Filter C
	Sample
WEAR	Iron
	Chrom
All component wear rates are normal.	Nickel
	Titaniu
	Silver
	Alumin
	Lead
	Coppe
	Tin
	Vanad
	White
	Yellow
CONTAMINATION	Silicon
There is no indication of any contamination in the oil.	Potass
	Water
	Silt
	Debris
	Sand/[
	Appea
	Odor
	Emulsifi
FLUID CONDITION	Sodiun
The condition of the oil is acceptable for the time in service.	Boron
	Barium
	Molybo

Sample Number Client Info VCP189550 Sample Date Client Info 10 Oct 2018 Machine Age hrs Client Info 501 Oil Age hrs Client Info 0 Oil Changed Irs Client Info 0 Oil Changed Client Info N/A Filter Changed Client Info N/A Sample Status Visto NORMAL Iron ppm ASTM D5185m >1200 10 Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Astm D5185m 0 Astm D5185m	/								
Sample Date Client Info 10 Oct 2018	Test	UOM	Method	Limit/Abn	Current	History1	History2		
Machine Age hrs Client Info 501	Sample Number		Client Info		VCP189550				
Oil AgehrsClient Info0Filter AgehrsClient Info0	Sample Date		Client Info		10 Oct 2018				
Filter Age Oil ChangedhrsClient Info0Oil ChangedClient InfoKAngedFilter ChangedClient InfoN/ASample StatusNORMALIronppmASTM D5185m>120010ChromiumppmASTM D5185m<1NickelppmASTM D5185m<1NickelppmASTM D5185m<1AluminumppmASTM D5185m0AluminumppmASTM D5185m>0LeadppmASTM D5185m>00CopperppmASTM D5185m>0VanadiumppmASTM D5185m>00VanadiumppmASTM D5185m>1001SiliconppmASTM D5185m>1001VaterWC Method>0.25NEGSilitscalar'VisualNONENONEDebrisscalar'VisualNORMLNORMLAppearancescalar'VisualNORMLNORMLAppearancescalar'VisualNORMLSodiumppmASTM D5185m2000Appearancescalar'VisualNORMLBoron <th>Machine Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>501</th> <th></th> <th></th>	Machine Age	hrs	Client Info		501				
Oil ChangedClient InfoChangedInfoN/AInfoInfoFilter ChangedClient InfoN/AInfo	Oil Age	hrs	Client Info		0				
Filter Changed Client Info N/A Sample Status NORMAL Iron ppm ASTM D5185m >1200 10 Chromium ppm ASTM D5185m >1200 10 Nickel ppm ASTM D5185m < 1 Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >50 0 Lead ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >00 Vanadium ppm ASTM D5185m >100 1 Valer	Filter Age	hrs	Client Info		0				
Sample Status NORMAL Iron ppm ASTM D5185m >1200 10 Chromium ppm ASTM D5185m < <td><1</td> Nickel ppm ASTM D5185m < <td><1</td> Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >50 0 Lead ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >100 1 Vanadium ppm ASTM D5185m >100 1 Vallow Metal scalar *Visual NONE NONE	<1	<1	Oil Changed		Client Info		Changed		
Iron ppm ASTM D5185m >1200 10 Chromium ppm ASTM D5185m < <1 Nickel ppm ASTM D5185m <1 Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >50 0 Lead ppm ASTM D5185m >50 0 Copper ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >0 0 Vallow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >100 1 Silicon ppm	Filter Changed		Client Info		N/A				
Chromium ppm ASTM D5185m <1	Sample Status				NORMAL				
Chromium ppm ASTM D5185m <1									
Nickel ppm ASTM D5185m <1	-	ppm		>1200					
Titanium ppm ASTM D5185m O		ppm							
Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >50 0 Lead ppm ASTM D5185m >50 0 Copper ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >50 0 Vanadium ppm ASTM D5185m >100 I Vanadium ppm ASTM D5185m >100 1 Vallow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >100 1 Silit scalar *Visual NONE NONE Sand/Dirt sca		ppm							
Aluminum ppm ASTM D5185m <1		ppm							
Lead ppm ASTM D5185m >50 0		ppm			-				
Copper ppm ASTM D5185m >50 0 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m >100 1 Potassium ppm ASTM D5185m >20 3 Silicon ppm ASTM D5185m >20 3 Water WC Method >0.25 NEG Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML		ppm			<1				
TinppmASTM D5185m0VanadiumppmASTM D5185m0White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>1001PotassiumppmASTM D5185m>203WaterWC Method>0.25NEGSilitscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m2000BoronppmASTM D5185m2000MalganeseppmASTM D5185m122MagnesiumppmASTM D5185m12076	Lead	ppm			-				
VanadiumppmASTM D5185m00White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>1001PotassiumppmASTM D5185m>203WaterWC Method>0.25NEGSilitscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNORMNORMLAppearancescalar*VisualNORMLNORMLSodiumppmASTM D5185m400136BoronppmASTM D5185m122MalganeseppmASTM D5185m1217MagnesiumppmASTM D5185m12176	Copper	ppm	ASTM D5185m	>50	0				
White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>1001PotassiumppmASTM D5185m>203WaterWC Method>0.25NEGSilitscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNOREAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m400136BariumppmASTM D5185m122ManganeseppmASTM D5185m1217MagnesiumppmASTM D5185m12176	Tin	ppm	ASTM D5185m		0				
Yellow Metalscalar*VisualNONENONESiliconppmASTM D5185m>1001PotassiumppmASTM D5185m>203WaterWC Method>0.25NEGSiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m400136BariumppmASTM D5185m122ManganeseppmASTM D5185m1217MagnesiumppmASTM D5185m12076	Vanadium	ppm	ASTM D5185m		0				
SiliconppmASTM D5185m>1001PotassiumppmASTM D5185m>203WaterWC Method>0.25NEGSiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m2000BoronppmASTM D5185m2000MalganeseppmASTM D5185m122MagnesiumppmASTM D5185m1217MagnesiumppmASTM D5185m15076	White Metal	scalar	*Visual	NONE	NONE				
PotassiumppmASTM D5185m>203WaterWC Method>0.25NEGSiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m400136BoronppmASTM D5185m2000MalganeseppmASTM D5185m122MagnesiumppmASTM D5185m1217CalciumppmASTM D5185m15076	Yellow Metal	scalar	*Visual	NONE	NONE				
PotassiumppmASTM D5185m>203WaterWC Method>0.25NEGSiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185m400136BoronppmASTM D5185m2000MalganeseppmASTM D5185m122MagnesiumppmASTM D5185m1217CalciumppmASTM D5185m15076	Silicon	nom	ASTM D5185m	>100	1				
WaterWC Method>0.25NEGSiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.25NEGSodiumppmASTM D5185m400136BoronppmASTM D5185m2000MolybdenumppmASTM D5185m122MagnesiumppmASTM D5185m1217CalciumppmASTM D5185m15076					3				
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLSodiumppmASTM D5185mBoronppmASTM D5185m2000BariumppmASTM D5185m2000MalganeseppmASTM D5185m122MagnesiumppmASTM D5185m1217CalciumppmASTM D5185m15076		1-1-			NEG				
Debrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.25NEGSodiumppmASTM D5185m400136BoronppmASTM D5185m2000BariumppmASTM D5185m122MalganeseppmASTM D5185m1217MagnesiumppmASTM D5185m15076		scalar	*Visual		-				
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.25NEGSodiumppmASTM D5185m400136BoronppmASTM D5185m2000BariumppmASTM D5185m122MolybdenumppmASTM D5185m1217MagnesiumppmASTM D5185m12176					NONE				
Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.25NEGSodiumppmASTM D5185m400136BoronppmASTM D5185m2000BariumppmASTM D5185m2000MolybdenumppmASTM D5185m122ManganeseppmASTM D5185m1217MagnesiumppmASTM D5185m15076	Sand/Dirt	scalar		NONE	NONE				
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.25NEGSodiumppmASTM D5185m<1BoronppmASTM D5185m400136BariumppmASTM D5185m2000MolybdenumppmASTM D5185m122ManganeseppmASTM D5185m1217MagnesiumppmASTM D5185m15076			*Visual		-				
Emulsified Water scalar *Visual >0.25 NEG Sodium ppm ASTM D5185m <1 Boron ppm ASTM D5185m 400 136 Barium ppm ASTM D5185m 200 0 Molybdenum ppm ASTM D5185m 12 2 Manganese ppm ASTM D5185m 12 17 Calcium ppm ASTM D5185m 150 76		scalar	*Visual	NORML	NORML				
Boron ppm ASTM D5185m 400 136 Barium ppm ASTM D5185m 200 0	Emulsified Water	scalar	*Visual	>0.25	NEG				
Boron ppm ASTM D5185m 400 136 Barium ppm ASTM D5185m 200 0									
Barium ppm ASTM D5185m 200 0 Molybdenum ppm ASTM D5185m 12 2 Manganese ppm ASTM D5185m 12 <	Sodium	ppm	ASTM D5185m		<1				
Molybdenum ppm ASTM D5185m 12 2 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m	400	136				
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m	200	0				
Magnesium ppm ASTM D5185m 12 17 Calcium ppm ASTM D5185m 150 76	Molybdenum	ppm	ASTM D5185m	12	2				
Calcium ppm ASTM D5185m 150 76	Manganese	ppm	ASTM D5185m		<1				
	Magnesium	ppm	ASTM D5185m	12	17				
Phosphorus ppm ASTM D5185m 1650 781	Calcium	ppm	ASTM D5185m	150	76				
	Phosphorus	ppm	ASTM D5185m	1650	781				
Zinc ppm ASTM D5185m 125 47	Zinc	ppm	ASTM D5185m	125	47				
Sulfur ppm ASTM D5185m 22500 22506	Sulfur	ppm	ASTM D5185m	22500	22506				
Visc @ 40°C cSt ASTM D445 368 301.2	Visc @ 40°C	cSt	ASTM D445	368	301.2				

Contact/Location: Service Manager - BLYCHANC







BLYTHE CONSTRUCTION INC Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. 2911 N GRAHAM STREET : VCP189550 Received : 12 Oct 2018 Lab Number : 04570573 : 15 Oct 2018 CHARLOTTE, NC Tested Unique Number : 8364489 : 15 Oct 2018 - Jonathan Hester Diagnosed US 28231 Test Package : MOB 1 Contact: Service Manager Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (704)373-2960

Contact/Location: Service Manager - BLYCHANC

Page 2 of 2