



## Isea [SWA488661 RENTAL DEP] Machine Id VOLVO ECR355EL 314776 Component Diesel Engine

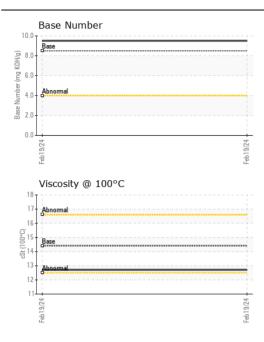
## DIESEL ENGINE OIL SAE 15W40 (--- GAL)

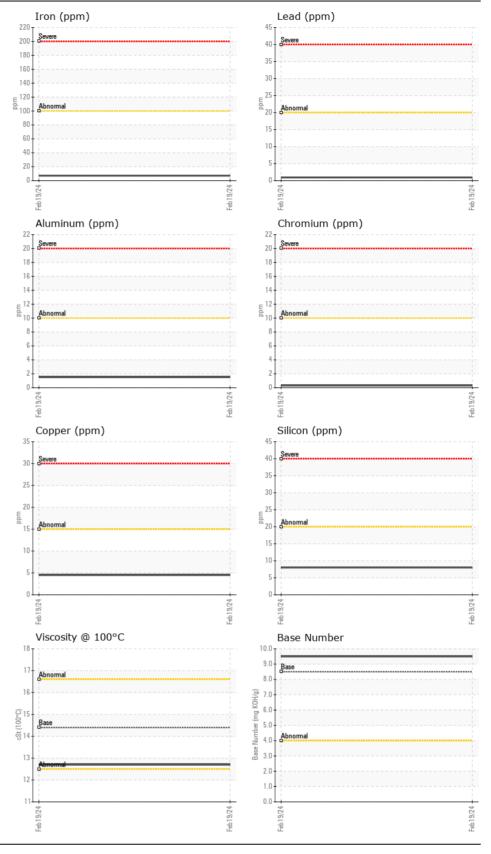
The sample at the next service interval to monitor.    Sample Date Sample Date Machine Age Irrs    Client Info Date Irrs    VCP41BS1 Sample Date Date Irrs	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Besample at the next service interval to monitor.    Sample Date Machine Age Name Date Service Service Se	<b>HECOMMENDATION</b>		00101		LITTICADI		,	3
Machine Age No    Ins    Client Info    966    International Print Age    Ins    Client Info    0    International Print Age    Intern	Resample at the next service interval to monitor.							
Oil Age    hrs    Clent Info    O			hrs					
Filter Age    Ins    Client Info    Changed		Ũ						
OI Changed Filter Obanged Sample Status    Client In/o Client In/o    Changed Changed Sample Status		-						
Filter Changed Sample Status    Client Info    Changed NORMAL		-						
Sample Status    NORMA    ···    ···      WEAR    Iron    pm    ASIM DSIGS    100    7    -··      Metal levels are typical for a new component breaking in.    Nickel    pm    ASIM DSIGS    100    2    -··    -··      Nickel    pm    ASIM DSIGS    100    2    -··    -··    -··      Silvo SIGS    pm    ASIM DSIGS    100    2    -··    ···    ···    ···    ···    ···    ···    ···    ···    ···    ···    ···    ···    ···    ··		-				-		
WEAR    Iron    ppm    ASMD5165m    >100    7       Metal levels are typical for a new component breaking in.    Tromium    ppm    ASMD5165m    >10    21       Nickel    ppm    ASMD5165m    >10    21        Nickel    ppm    ASMD5165m    >20    21        Silver    ppm    ASMD5165m    10    2        ASMD5165m    10    2          Silver    ppm    ASMD5165m    10    2        Lead    ppm    ASMD5165m    20    1        Vanadium    ppm    ASMD5165m    20    2        Vanadium    ppm    ASMD5165m    20    2        Vanadium    ppm    ASMD5165m    20    0        Vanadium    ppm    ASMD5165m		-		0.00.00.00		_		
Metal levels are typical for a new component breaking in.    Chromium    ppm    ASTM 05185m    >10    <1								
Nickel    ppm    ASTM D3156n    >10    2        Taranium    ppm    ASTM D3156n    >2    0        Aluminum    ppm    ASTM D3156n    >20    2        Aluminum    ppm    ASTM D3156n    >20    2        Lead    ppm    ASTM D3156n    >20    2        Vanadium    ppm    ASTM D3156n    >20    2        Vanadium    ppm    ASTM D3156n    >20    2        Vanadium    ppm    ASTM D3156n    >20    6        Vanadium    ppm    ASTM D3156n    >20    8        Vanadium    ppm    ASTM D3156n    >20    8        Vanadium    ppm    ASTM D3156n    >20    8        Vanadium    ppm    ASTM D3156n    >20 <th rowspan="4"></th> <th>Iron</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;100</th> <th>7</th> <th></th> <th></th>		Iron	ppm	ASTM D5185m	>100	7		
Notes    ppm    Astriutostas    ppm		Chromium	ppm	ASTM D5185m	>10	<1		
Silver    ppm    ASTM 0585n    >2    0        Auminum    ppm    ASTM 0585n    >20    21        Lead    ppm    ASTM 0585n    >20    21        Copper    ppm    ASTM 0585n    >10    22        Vanadium    ppm    ASTM 0585n    >10    R        Vanadium    ppm    ASTM 0585n    >20    8		Nickel	ppm	ASTM D5185m	>10	2		
Auminum    ppm    ASTMDS185m    >10    2        Lead    ppm    ASTMDS185m    >20    <1        Copper    ppm    ASTMDS185m    >10    2        Tin    ppm    ASTMDS185m    >10    2        White Metal    scalar    'Visual    NONE    NONE    NONE       White Metal    scalar    'Visual    NONE    NONE    NONE       There is no indication of any contamination in the oil.    Silicon    ppm    ASTMDS185m    >20    0       Water    WC Method    >0.0    1         Giyool    WC Method    >0.0    1         Solition    Astmosition    AstmDs185m    >20    6.1        Solition    Astmosition    AstmDs185m    >0.1         Solition		Titanium	ppm	ASTM D5185m		<1		
Lead    ppm    ASTM 25185n    >20    <1		Silver	ppm	ASTM D5185m	>2	0		
Copper    ppm    ASTM D5185m    >15    4        Tin    ppm    ASTM D5185m    >10    2        Vanadium    ppm    ASTM D5185m    >10    2        White Metal    scalar    *Visual    NONE    NONE        There is no indication of any contamination in the oil.    Silicon    ppm    ASTM D5185m    >20    8        Water    WC Method    >-0          Water    WC Method    >-0          Sol %    %    'ASTM D764    >3    0.1        Sol %    %    'ASTM D764    >3    0.1        Sulfation    Abs/trm    'ASTM D764    >3    0.1        Sol %    %    'ASTM D764    >3    0.1		Aluminum	ppm	ASTM D5185m	>10	2		
Tin    pp    ASTM 0518m    -10    2        Vanadium    pp    ASTM 0518m    INONE         White Metal    scalar    Visual    NONE    NONE        Valow Metal    scalar    Visual    NONE    NONE        CONTAMINATION    Silicon    pp    ASTM 0518m    >20    8        There is no indication of any contamination in the oil.    Silicon    pp    ASTM 0518m    >20    6.0        Glycol    WC Method    S.01    NEG		Lead	ppm	ASTM D5185m	>20	<1		
Vanadium    ppm    ASTM D5185m    <1		Copper	ppm	ASTM D5185m	>15	4		
White Metal Yellow Metal    scalar    'Visual    NONE        CONTAMINATION    Silicon    pp    ASTM 05185m    >20    8       There is no indication of any contamination in the oil.    Silicon    pp    ASTM 05185m    >20    0       Water    WC Method    >0.1    NEG        Glycol    WC Method    >0.1    NEG        Solt%    %    %    %    0.1        Solt%    %    %    %    0.1    NEG       Solt%    %    %    %    %    0.1		Tin	ppm	ASTM D5185m	>10	2		
Yellow Metal    scalar    *Visual    NONE        CONTAMINATION    Silicon    ppm    ASTM D5185m    >20    8        There is no indication of any contamination in the oil.    Silicon    ppm    ASTM D5185m    >20    0        Water    WC Method    >6.0    <1.0         Giycol    WC Method    >6.0    <1.0         Soot %    %    'ASTM D7844    >3    0.1        Soot %    %    'ASTM D7844    >3    0.1        Soot %    %    'ASTM D7844    >3    0.1        Solt %    %    'ASTM D7844    >3    0.1        Sulfation    As/monthot    'Nouel    NONE    NONE        Sand/Dirt    scalar    'Visual    NORE    NORE <th></th> <th>Vanadium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>&lt;1</th> <th></th> <th></th>		Vanadium	ppm	ASTM D5185m		<1		
Silicon    ppm    ASTM D5185m    >20    8        There is no indication of any contamination in the oil.    Potassium    ppm    ASTM D5185m    >20    0        Water    WC Method    >6.0    <1.0         Water    WC Method    >6.0    <1.0         Glycol    WC Method    >0.1    NEG         Soliton    Abs/m    'ASTM D7844    >3    0.1        Sulfation    Abs/m    'None    NONE    NONE		White Metal	scalar	*Visual	NONE	NONE		
Potassium    ppm    ASTM D5185m    >20    0       Fuel    WC Method    >6.0    <1.0       Wate    W WC Method    >0.1    NEG       Wate    W WC Method    >0.1    NEG       Soot %    %    ASTM D7844    >3    0.1       Nitration    Abs/cm    *ASTM D7844    >3    0.1       Soot %    %    ASTM D7844    >3    0.1       Solt scalar    Visual    NONE    NONE        Solt scalar    Visual    NONE    NONE        Debris    scalar    Visual    NORML    NORML       Morescalar    Visual    NO		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium    ppm    ASTM D5185m    >20    0       Fuel    WC Method    >6.0    <1.0       Wate    W WC Method    >0.1    NEG       Wate    W WC Method    >0.1    NEG       Soot %    %    ASTM D7844    >3    0.1       Nitration    Abs/cm    *ASTM D7844    >3    0.1       Soot %    %    ASTM D7844    >3    0.1       Solt scalar    Visual    NONE    NONE        Solt scalar    Visual    NONE    NONE        Debris    scalar    Visual    NORML    NORML       Morescalar    Visual    NO	CONTAMINATION							
Fuel  WC Method  >6.0  <1.0      Water  WC Method  >0.1  NEG      Glycol  WC Method  >0.1  NEG      Soot %  %  *ASTM D7844  >3  0.1      Soot %  %  *ASTM D7844  >20  6.1      Soot %  %  *ASTM D7844  >30  21.8      Sulfation  Abs/cm  'ASTM D7415  >30  21.8      Sulfation  Abs/cm  'Visual  NONE  NONE      Sada/Dirit  scalar  'Visual  NONE  NONE      Appearance  scalar  'Visual  NORML  NORML      FLUID CONDITION  NordWater  scalar  'Visual  NORML  NORML     Boron  ppm  ASTM D5185m  >10  0      Marganese  ppm  ASTM D5185m  100 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
FLUID    Work Method    Solid    REG    Image	There is no indication of any contamination in the oil.		ppm					
Giycol    WC Method    NEG       Soot %    %    *ASTM D784    >3    0.1       Nitration    Abs/cm    *ASTM D784    >30    0.1       Sulfation    Abs/cm    *ASTM D784    >30    21.8       Sulfation    Abs/tm    *ASTM D784    >30    21.8       Sulfation    Abs/tm    *ASTM D784    >30    21.8       Sulfation    Abs/tm    *ASTM D784    >30    NONE       Sulfation    Abs/tm    *ASTM D784    NONE    NONE       Sulfation    Scalar    *Visual    NONE    NONE       Sand/Dirt    scalar    *Visual    NORM    NORM       Odor    scalar    *Visual    NORM    NORM       Odor    scalar    *Visual    NORM    NORM       Dotor    scalar    *Visual    NORM    NORM								
Soot %    %    *ASTM D784    >3    0.1        Nitration    Abs/cm    *ASTM D762    >20    6.1        Sulfation    Abs/cm    *ASTM D7612    >20    6.1        Sulfation    Abs/cm    *ASTM D7415    >30    21.8        Sulfation    Abs/cm    *Visual    NONE    NONE        Sand/Dirt    scalar    *Visual    NONE    NONE        Appearance    scalar    *Visual    NORM    NORM        Odor    scalar    *Visual    NORM    NORM        Odor    scalar    *Visual    NORM    NORM        Odor    scalar    *Visual    NORM    NORM        Baron    ppm    ASTM D7858    10    0        Malybedeme    <					>0.1			
Nitration    Abs/cm    *ASTM D7624    >20    6.1        Sulfation    Abs/tm    *ASTM D7645    >30    21.8        Silt    scalar    *Visual    NONE    NONE        Debris    scalar    *Visual    NONE    NONE        Sand/Dirt    scalar    *Visual    NONE    NONE        Appearance    scalar    *Visual    NORM    NORM        Odor    scalar    *Visual    NORM    NORM        Dobris    scalar    *Visual    NORM    NORM        Appearance    scalar    *Visual    NORM    NORM        Odor    scalar    *Visual    NORM    NORM        Bronon    ppm    ASTM D5185n    10    0        Magnesee    ppm <t< th=""><th></th><th></th><th>01</th><th></th><th>0</th><th></th><th></th><th></th></t<>			01		0			
SulfationAbs/Imm*ASTM D7415>3021.8Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMNORMLOdorancescalar*VisualNORMLNORMLOdorancescalar*VisualNORMLNORMLOdorancescalar*VisualNORMLNORMLOdorancescalar*VisualNORMLNORMLDebrisscalar*VisualNORMLNORMLOdorancescalar*VisualNORMLNORMLDebrisscalar*VisualNORMLNORMLMogensuppmASTM D5185m250460MagnesiemppmASTM D5185m10034MagnesiemppmASTM D5185m10034MagnesiumppmASTM D5185m450439MagnesiumppmASTM D5185m30001666PhosphorusppmASTM D5185m1150885SulfurppmASTM D5185m1150885 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORUNORMLAppearancescalar*VisualNORUNORMLCdorscalar*VisualNORUNORMLEmulsified Waterscalar*VisualNORNORMLThe BN result indicates that there is suitable alkalinity remaining in the oil is suitable for further service.SodiumppmASTM D5185m20466BariumppmASTM D5185m1000MarganeseppmASTM D5185m100344MarganeseppmASTM D5185m11508855PhosphorusppmASTM D5185m11508855ZincppmASTM D5185m11508855SulfurppmASTM D5185m1501048SulfurppmASTM D5185m1501048SulfurppmASTM D5185m1501048SulfurppmASTM D5185m1501048SulfurppmASTM D5185m1501048SulfurppmASTM D5185m1501048								
Debrisscalar*VisualNONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLMagenzorscalar*VisualNORMLNORMLSodiumppmASTM D5185m>1582BoronppmASTM D5185m100BariumppmASTM D5185m10034MarganeseppmASTM D5185m10034MarganeseppmASTM D5185m30001666PhosphorusppmASTM D5185m13501048ZincppmASTM D5185m13501048SulfurppmASTM D5185m13501048OxidationAbs/Im*ASTM D5185m42502822SulfurppmASTM D5185m13501048SulfurppmASTM D5185m425								
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m>1582BoronppmASTM D5185m100BariumppmASTM D5185m1034MolybdenumppmASTM D5185m1034ManganeseppmASTM D5185m30001666								
Appearance Odorscalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGSodiumppmASTM D5185m>1582BoronppmASTM D5185m250466BariumppmASTM D5185m100MolybdenumppmASTM D5185m10034MaganeseeppmASTM D5185m10034MagnesiumppmASTM D5185m30001666PhosphorusppmASTM D5185m30001666ZincppmASTM D5185m13501048SulfurppmASTM D5185m13501048QiationAbs/:1m*ASTM D5185m13501048SulfurppmASTM D5185m13501048QiationAbs/:1m*ASTM D5185m42502822QiationAbs/:1m*ASTM D714i>2519.3								
Odorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGSodiumppmASTM D5185m>1582BoronppmASTM D5185m25046BariumppmASTM D5185m100MolybdenumppmASTM D5185m10034MaganeseeppmASTM D5185m10034MagnesiumppmASTM D5185m30001666PhosphorusppmASTM D5185m1150885SulfurppmASTM D5185m13501048OxidationAbs/.1mm'ASTM D7141>2519.3								
Emulsified Waterscalar*Visual>0.1NEGNEG								
Sodium  ppm  ASTM D5185m  >158  2     Boron  ppm  ASTM D5185m  250  46      Barium  ppm  ASTM D5185m  10  0      Molybdenum  ppm  ASTM D5185m  100  34      Manganese  ppm  ASTM D5185m  450  439      Magnesium  ppm  ASTM D5185m  3000  1666      Phosphorus  ppm  ASTM D5185m  1150  885      Sulfur  ppm  ASTM D5185m  1250  1048      Oxidation  Abs/.1mm  *ASTM D5185m  1250  19.3								
Boron  ppm  ASTM D5185m  250  46     Barium  ppm  ASTM D5185m  10  0      Barium  ppm  ASTM D5185m  100  0      Molybdenum  ppm  ASTM D5185m  100  34      Manganese  ppm  ASTM D5185m  450  439      Magnesium  ppm  ASTM D5185m  3000  1666      Calcium  ppm  ASTM D5185m  1150  8855      Phosphorus  ppm  ASTM D5185m  1350  1048      Sulfur  ppm  ASTM D5185m  1350  1048      Oxidation  Abs/.1mm  *ASTM D7414  >25  19.3			Scalal	visuai	>0.1	NEG		
Boron  ppm  ASTM D5185m  250  46     Barium  ppm  ASTM D5185m  10  0      Barium  ppm  ASTM D5185m  100  0      Molybdenum  ppm  ASTM D5185m  100  34      Manganese  ppm  ASTM D5185m  450  439      Magnesium  ppm  ASTM D5185m  3000  1666      Calcium  ppm  ASTM D5185m  1150  8855      Phosphorus  ppm  ASTM D5185m  1350  1048      Sulfur  ppm  ASTM D5185m  1350  1048      Oxidation  Abs/.1mm  *ASTM D7414  >25  19.3	The BN result indicates that there is suitable alkalinity remaining in the	Sodium	ppm	ASTM D5185m	>158	2		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.  Barium  ppm  ASTM D5185m  10  0      Molybdenum  ppm  ASTM D5185m  100  34      Manganese  ppm  ASTM D5185m  450  439      Magnesium  ppm  ASTM D5185m  450  439      Calcium  ppm  ASTM D5185m  3000  1666      Phosphorus  ppm  ASTM D5185m  1150  885      Zinc  ppm  ASTM D5185m  1350  1048      Sulfur  ppm  ASTM D5185m  4250  2822      Oxidation  Abs/.1mm  *ASTM D7414  >25  19.3								
MolybdenumppmASTM D5185m10034ManganeseppmASTM D5185m45041MagnesiumppmASTM D5185m450439CalciumppmASTM D5185m30001666PhosphorusppmASTM D5185m1150885ZincppmASTM D5185m13501048SulfurppmASTM D5185m42502822OxidationAbs/.1mm*ASTM D7414>2519.3								
Manganese  ppm  ASTM D5185m  <1								
Magnesium  ppm  ASTM D5185m  450  439     Calcium  ppm  ASTM D5185m  3000  1666      Phosphorus  ppm  ASTM D5185m  1150  885      Zinc  ppm  ASTM D5185m  1350  1048      Sulfur  ppm  ASTM D5185m  4250  2822      Oxidation  Abs/.1mm  *ASTM D7414  >25  19.3								
Calcium  ppm  ASTM D5185m  3000  1666      Phosphorus  ppm  ASTM D5185m  1150  885      Zinc  ppm  ASTM D5185m  1350  1048      Sulfur  ppm  ASTM D5185m  4250  2822      Oxidation  Abs/.tmm  *ASTM D7414  >25  19.3		-		ASTM D5185m	450			
Phosphorus    ppm    ASTM D5185m    1150    885        Zinc    ppm    ASTM D5185m    1350    1048        Sulfur    ppm    ASTM D5185m    4250    2822        Oxidation    Abs/.1mm    *ASTM D7414    >25    19.3								
Zinc  ppm  ASTM D5185m  1350  1048      Sulfur  ppm  ASTM D5185m  4250  2822      Oxidation  Abs/.1mm  *ASTM D7414  >25  19.3								
Sulfur    ppm    ASTM D5185m    4250    2822        Oxidation    Abs/.1mm    *ASTM D7414    >25    19.3								
Oxidation    Abs/.1mm    *ASTM D7414    >25    19.3								
			mg KOH/g	ASTM D2896	8.5			

Visc @ 100°C cSt

ASTM D445 14.4

12.7





ALTA EQUIPMENT CO - ORLAND PARK Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : VCP418813 Received 5000 INDUSTRIAL HWY : 22 Feb 2024 Lab Number : 06097374 Tested : 23 Feb 2024 GARY, IN Unique Number : 10890227 Diagnosed : 23 Feb 2024 - Wes Davis US 46406 Test Package : MOB 1 (Additional Tests: TBN) Contact: DAVE ENG Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. DAVE.ENG@ALTG.COM \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (312)350-2560 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: DAVE ENG - VOLVO8885