

Area [VULCAN] Machine Id SENNEBOGEN 875 875.5.1066 Component Diesel Engine

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

| Dil and filter change at the time of sampling has been noted. Resample sample Dular Client Info 8000000000000000000000000000000000000 | | | | | | | | |
|---|---|------------------|----------|-------------|-----------|-------------|----------|----------|
| Dial and filter change at the lime of sampling has been noted. Resample stut the next service interval to monitor. Sample Date filter Age hrs Client Info 321 Machine Age hrs Client Info 321 Filter Age hrs Client Info 321 Filter Age hrs Client Info Changed Client Info Changed Changed Filter Changed Sample Status Client Info Changed Changed Wetal levels are typical for a new component breaking in. Notal ppm ASTM DSIS5 100 21 Notal ppm ASTM DSIS5 Wetal levels are typical for a new component breaking in. Notal ppm ASTM DSIS5 10 Notal ppm ASTM DSIS5 < | RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| at the next service interval to monitor. add relate backing day bits Citent Info add relate bits | Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. | Sample Number | | Client Info | | JR0069123 | | |
| Machine Age Time Client Info 321 Oil Age hrs Client Info 321 Filter Age hrs Client Info 321 Oil Changed Client Info Changed ABNOMU Wetal levels are typical for a new component breaking in. from pm ASTM 0518m -10 21 Wetal levels are typical for a new component breaking in. Nickel pm ASTM 0518m -30 -1 Silver pm ASTM 0518m -30 -1 Auminum pm ASTM 0518m -30 -1 Auminum pm ASTM 0518m -30 -1 Auminum pm ASTM 0518m -30 10 Maninum pm ASTM 0518m -31 0 | | Sample Date | | Client Info | | 28 Oct 2020 | | |
| Filter Age Ins Client Info 321 | | Machine Age | hrs | Client Info | | 321 | | |
| Oil Changed Client Ind Changed Changed Image Image </td <th>Oil Age</th> <td>hrs</td> <td>Client Info</td> <td></td> <th>321</th> <td></td> <td></td> | | Oil Age | hrs | Client Info | | 321 | | |
| Filter Changed Sample Status Client Info Changed ABNOMIAL | | Filter Age | hrs | Client Info | | 321 | | |
| Sample Status ABNORML Piol ABNORML | | Oil Changed | | Client Info | | Changed | | |
| VEAR Iron ppm ASTM 05156m >100 21 Wetal levels are typical for a new component breaking in. Iron ppm ASTM 05156m -1 Nickel ppm ASTM 05156m -20 -1 Titanium ppm ASTM 05156m -20 19 Aluminum ppm ASTM 05156m -30 -11 Lead ppm ASTM 05156m -30 14 Lead ppm ASTM 05156m -30 14 Vanadium ppm ASTM 05156m -50 0 Visual NONE NONE NONE NONE Soldrum and/or potassium levels are high. Test for glycol is negative. Silicon ppm ASTM 0515m -20 A 142 Soldrum and/or potassium levels are high. Test for glycol is negative. Fuel <th>Filter Changed</th> <td></td> <td>Client Info</td> <td></td> <th>Changed</th> <td></td> <td></td> | | Filter Changed | | Client Info | | Changed | | |
| Wetal levels are typical for a new component breaking in. Chromium ppm ASTM D586m >20 <1 Nickel ppm ASTM D586m -1 | | Sample Status | | | | ABNORMAL | | |
| Wetal levels are typical for a new component breaking in. Chromium ppm ASTM D586m >20 <1 Nickel ppm ASTM D586m -1 | VEAR | Iron | ppm | ASTM D5185m | >100 | 21 | | |
| Mickel ppm ASTM D518sn >4 1 Tittanium ppm ASTM D518sn >4 <1 | | Chromium | | ASTM D5185m | >20 | <1 | | |
| Titanium ppm ASTM D5185m c 1 Silver ppm ASTM D5185m -3 -1 Aluminum ppm ASTM D5185m -30 12 Lead ppm ASTM D5185m -30 14 Copper ppm ASTM D5185m -10 Tin ppm ASTM D5185m -10 0 Vanadium ppm ASTM D5185m -10 0 | Metal levels are typical for a new component breaking in. | | | | | | | |
| Silver ppm ASTM D515m -3 <1 Aluminum ppm ASTM D515m -20 19 Lead ppm ASTM D515m -30 14 Copper ppm ASTM D515m -30 14 Vanadium ppm ASTM D515m -30 14 Vanadium and/or potassium levels are high. Test for glycol is negative. Fuel % ASTM D515m -20 NEG Fuel % ASTM D515m -20 NEG Golum and/or potassium levels are high. Test for glycol is negative. Fuel % ASTM D515m -20 NEG Soldum and/or potassium levels are high. Test for glycol is negative. Solon ASTM D515m | | | | | | | | |
| Aluminum ppm ASTM D5185m >20 19 Lead ppm ASTM D5185m >40 2 Copper ppm ASTM D5185m >40 2 Vanadium ppm ASTM D5185m >15 0 Vanadium ppm ASTM D5185m >15 0 Vanadium ppm ASTM D5185m >25 31 Sodium and/or potassium levels are high. Test for glycol is negative. Fuel % ASTM D5185m >20 A 142 Sodium and/or potassium levels are high. Test for glycol is negative. Fuel % ASTM D282 S 10 Fuel % ASTM D282 2 6.6 Silic on % *ASTM D284 >3 0.1 Sodium Abs(m* *ASTM D284 >3 0. | | | | | >3 | | | |
| Lead ppm ASTM D5185m >40 2 Copper ppm ASTM D5185m >330 14 Tin ppm ASTM D5185m >530 0 Vanadium ppm ASTM D5185m NONE NONE White Metal scalar 'Visual NONE NONE Sodium and/or potassium levels are high. Test for glycol is negative. Silicon ppm ASTM D5185m >20 142 Foals indicate that there is no fuel present in the oil. Sodi or % ASTM D5185m >20 11 Fuel % ASTM D5180 >20 NEG Glycod % ASTM D282 NEG | | | | | | | | |
| Copper ppm ASTM D5185m >330 14 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 White Metal scalar 'Visual NONE NONE Solium and/or potassium levels are high. Test for glycol is negative. Silicon pr ASTM D5185m >2.2 31 Fuel % ASTM D5185m >2.2 NEG Solicon and/or potassium levels are high. Test for glycol is negative. Fuel % ASTM D5185m >2.2 NEG Fuel % ASTM D5185m >0.1 NONE NONE NONE NONE | | | | | | | | |
| Tin ppm ASTM D5185m >10 0.0 | | | | | | | | |
| Vanadium ppm ASTM D5185m 0 White Metal scalar Visual NONE NONE Velow Metal scalar Visual NONE NONE Sodium and/or potassium levels are high. Test for glycol is negative. Feets indicate that there is no fuel present in the oil. Silicon ppm ASTM D5185m >20 142 Glycol % ASTM D5185m >20 NEG Glycol % ASTM D5185m >20 NEG Sodium and/or potassium levels are high. Test for glycol is negative. Fuel % ASTM D7844 >3 0.1 Valuer WC Method >0.2 NEG | | | | | | | | |
| White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE CONTAMINATION Silicon ppm ASTM D5185m<>25 31 Sodium and/or potassium levels are high. Test for glycol is negative. Fuel γ ASTM D5185m<>20 ▲ 142 Fuel % ASTM D5185m >20 ▲ 142 Glycol % *ASTM D5185m >20 ▲ 162 Glycol % *ASTM D7415 30 0.1 Nitration Abs/tmm ASTM D744 >-20 ▲ 66 Solt % % *ASTM D7454 >20 10.1 Sulfation Abs/tmm ASTM D7455 >30 19.7 | | | | | 210 | - | | |
| Yellow Metal scalar *Visual NONE NONE CONTAMINATION Silicon ppm ASTM D5188m >20 4 142 Sodium and/or potassium levels are high. Test for glycol is negative. % ASTM D5188m >20 4 142 Fuel % ASTM D5185m >20 NEG Glycol % ASTM D5185m >20 NEG Glycol % ASTM D7624 >20 NEG Solt Abs/rm 'ASTM D7624 >20 6.6 Silit scalar 'Visual NONE NONE Silitation Abs/rm 'ASTM D7624 >20 6.6 Silitation Abs/rm 'ASTM D7615 NONE NONE Sand/Dirt scalar 'Visual NONE NONE | | | | | | - | | |
| Soliticon ppm ASTM D5185m >20 31 Socium and/or potassium levels are high. Test for glycol is negative. Fuel % ASTM D5185m >20 142 Fuel % ASTM D5185m >20 116 Water WC Method >0.2 NEG Glycol % 'ASTM D282 NEG Solitation Abs/cm 'ASTM D282 NEG Solot % 'ASTM D784 >30 19.7 Solitation Abs/cm 'ASTM D784 >30 19.7 Solitation Abs/cm 'ASTM D784 >30 19.7 Silt scalar 'Visual NONE NONE Solidation Abs/cm 'ASTM D784 >30 19.7 Solidation Abs/cm 'ASTM D784 >30 19.7 Sand/Di | | | | | | | | |
| Potassium ppm ASTM D5185m >20 ▲ 142 Fuel % ASTM D5185m >20 ▲ 142 Fuel % ASTM D5185m >20 ▲ 142 Water WC Method >0.2 NEG Glycol % *ASTM D7844 >3 0.1 Sott % *ASTM D7844 >3 0.1 | | | Scalar | visuai | INUINE | NONE | | |
| Sodium and/or potassium levels are high. 1est for glycol is negative. Fuel % ASTM D3524 >5 0.1 Tests indicate that there is no fuel present in the oil. Water WC Method >0.2 NEG Glycol % *ASTM D7844 >3 0.1 Glycol % *ASTM D7844 >3 0.1 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/rm *ASTM D7844 >3 0.1 Soot % % *ASTM D7844 >3 0.1 Soot % % *ASTM D7844 >3 0.1 Sulfation Abs/rm *Asim D7844 >30 19.7 Soat/Site scalar *Visual NONE NONE Sand/Ditt scalar *Visual NORML NORML | CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 31 | | |
| Tests indicate that there is no fuel present in the oil. Note of the oil of of th | Sodium and/or potassium levels are high. Test for glycol is negative. Tests indicate that there is no fuel present in the oil. | Potassium | ppm | ASTM D5185m | >20 | 🔺 142 | | |
| Water WC Method >0.2 NEG | | Fuel | % | ASTM D3524 | >5 | 0.1 | | |
| Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 6.6 Sulfation Abs/cm *ASTM D7624 >20 6.6 Sulfation Abs/cm *ASTM D7415 >30 19.7 Sulfation Abs/cm *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORM NORM Appearance scalar *Visual NORM NORM Odor scalar *Visual NORM NORM Odor scalar *Visual NORM NORM The oil viscosity is lower than normal. The BN result indicates that here is suitable alkalinity remaining in the oil. Confirm oil type. Sodium ppm ASTM | | Water | | WC Method | >0.2 | NEG | | |
| Nitration Abs/cm *ASTM D7624 >20 6.6 Sulfation Abs/tm *ASTM D7415 >30 19.7 Silt scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORE NORM Odor scalar *Visual NORE NORM Emulsified Water scalar *Visual NOR NORM Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 3 | | Glycol | % | *ASTM D2982 | | NEG | | |
| SulfationAbs/Im*ASTM D7415>3019.7Siltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORNORMLOdorscalar*VisualNORNORMLOdorscalar*VisualNORNORMLEmulsified Watescalar*VisualNORNORMLBoronppmASTM D5185m87BariumppmASTM D5185mMalybdenumppmASTM D5185mManganeseppmASTM D5185m4ManganesippmASTM D5185mManganesippmASTM D5185mManganesippmASTM D5185mManganesippmASTM D5185mManganesippmASTM D5185mManganesippmASTM D5185mManganesippmASTM D5185m <th>Soot %</th> <td>%</td> <td>*ASTM D7844</td> <td>>3</td> <th>0.1</th> <td></td> <td></td> | | Soot % | % | *ASTM D7844 | >3 | 0.1 | | |
| Silt scalar *Visual NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORE NONE Odor scalar *Visual NORML NORML Odor scalar *Visual NORML Odor scalar *Visual NORML Debris scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Dolor scalar *Visual NORML NORML | | Nitration | Abs/cm | *ASTM D7624 | >20 | 6.6 | | |
| Debris scalar *Visual NONE | | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.7 | | |
| Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORM NORML Odor scalar *Visual NORM NORML Cdor scalar *Visual NORM NORML Emulsified Water scalar *Visual NORM NORML Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 3 Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Maganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Phosphorus ppm ASTM D5185m | | Silt | scalar | *Visual | NONE | NONE | | |
| Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGFLUID CONDITIONSodiumppmASTM D5185m3BoronppmASTM D5185m0877BariumppmASTM D5185m2MolybdenumppmASTM D5185m054ManganeseppmASTM D5185m0359MagnesiumppmASTM D5185m0359CalciumppmASTM D5185m0972PhosphorusppmASTM D5185m0972ZincppmASTM D5185m02879SulfurppmASTM D5185m02879 | | Debris | scalar | *Visual | NONE | NONE | | |
| Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGSodiumppmASTM D5185mSSBoronppmASTM D5185mI87IIIBariumppmASTM D5185mI2IIMolybdenumppmASTM D5185mI2IIMaganeseppmASTM D5185mI359IIMagnesiumppmASTM D5185mI1872IIPhosphorusppmASTM D5185mI1872IIZincppmASTM D5185mI1143IISulfurppmASTM D5185mI1843IISulfurppmASTM D5185mI143IISulfurppmASTM D5185mI143IISulfurppmASTM D5185mI143IISulfurppmASTM D5185mI143IISulfurppmASTM D5185mI143IISulfurppmASTM D5185mI143IISulfurppmASTM D5185mI143IISulfurppmASTM D5185mI143IIS | | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| Emulsified Water scalar *Visual >0.2 NEG NEG | | Appearance | scalar | *Visual | NORML | NORML | | |
| Sodium ppm ASTM D5185m 3 Boron ppm ASTM D5185m 87 Barium ppm ASTM D5185m 2 Molybdenum ppm ASTM D5185m 2 Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 359 Calcium ppm ASTM D5185m 1872 Phosphorus ppm ASTM D5185m 972 Zinc ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 2879 | | Odor | scalar | *Visual | NORML | NORML | | |
| Boron ppm ASTM D5185m 877 Barium ppm ASTM D5185m 2 Barium ppm ASTM D5185m 2 Molybdenum ppm ASTM D5185m 2 Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 359 Calcium ppm ASTM D5185m 1872 Phosphorus ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 1143 | | Emulsified Water | scalar | *Visual | >0.2 | NEG | | |
| Boron ppm ASTM D5185m 877 Barium ppm ASTM D5185m 2 Barium ppm ASTM D5185m 2 Molybdenum ppm ASTM D5185m 2 Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 359 Calcium ppm ASTM D5185m 1872 Phosphorus ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 1143 | | Sodium | ppm | ASTM D5185m | | 3 | | |
| Barium ppm ASTM D5185m 2 Molybdenum ppm ASTM D5185m 2 Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 4 Calcium ppm ASTM D5185m 1872 Phosphorus ppm ASTM D5185m 972 Zinc ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 2879 | The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. | Boron | | ASTM D5185m | | 87 | | |
| here is suitable alkalinity remaining in the oil. Confirm oil type.MolybdenumppmASTM D5185m54ManganeseppmASTM D5185m4MagnesiumppmASTM D5185m359CalciumppmASTM D5185m1872PhosphorusppmASTM D5185m972ZincppmASTM D5185m1143SulfurppmASTM D5185m2879 | | | | | | | | |
| Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 359 Calcium ppm ASTM D5185m 1872 Phosphorus ppm ASTM D5185m 972 Zinc ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 2879 | | | | | | | | |
| Magnesium ppm ASTM D5185m 359 Calcium ppm ASTM D5185m 1872 Phosphorus ppm ASTM D5185m 972 Zinc ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 2879 | | • | | | | | | |
| Calcium ppm ASTM D5185m 1872 Phosphorus ppm ASTM D5185m 972 Zinc ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 2879 | | - | | | | | | |
| Phosphorus ppm ASTM D5185m 972 Zinc ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 2879 | | - | | | | | | |
| Zinc ppm ASTM D5185m 1143 Sulfur ppm ASTM D5185m 2879 | | | | | | | | |
| Sulfur ppm ASTM D5185m 2879 | | - | | | | | | |
| | | | | | | | | |
| | | Oxidation | | | >25 | 14.8 | | |

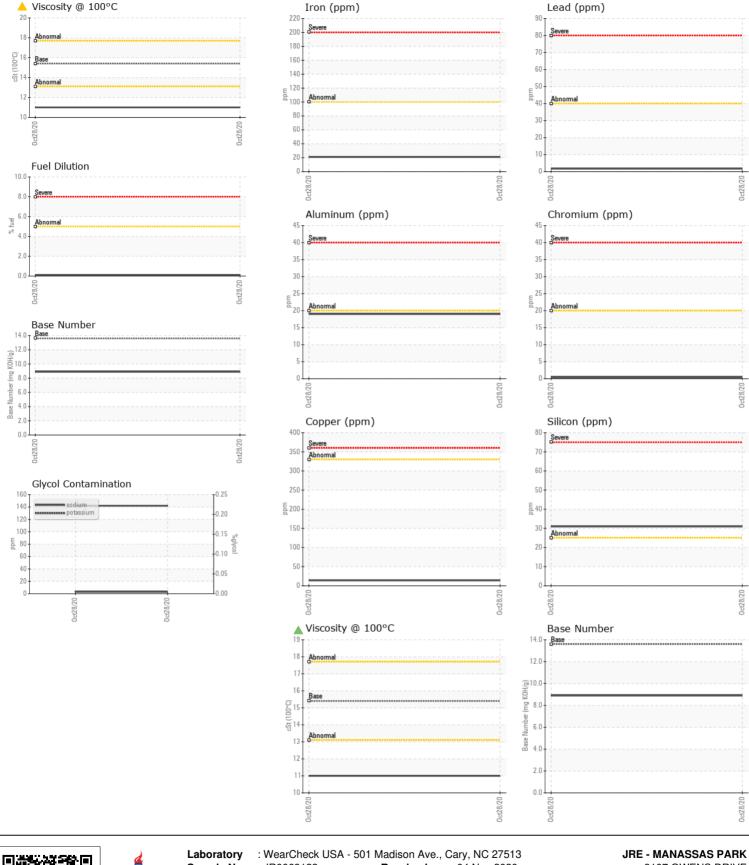
Base Number (BN) mg KOH/g ASTM D2896 13.6

ASTM D445 15.4

Visc @ 100°C cSt

8.9

11.0





Contact/Location: DON VEST - JAMMAN

Page 2 of 2