



# CONSTRUCTION EQUIPMENT

## JOHN DEERE 650 404213 - DIESEL ENGINE



**Sample No:** VCP449618  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP449618</b>	VCP438751	VCP406794	---
Sample Date	<b>10 May 2024</b>	13 Apr 2024	28 Jun 2023	---
Machine Hours	<b>0</b>	1893	1581	---
Oil Hours	<b>0</b>	0	0	---
Oil Changed	<b>Not Chngd</b>	Changed	Changed	---
Sample Status	<b>NORMAL</b>	SEVERE	SEVERE	---

**ALTA EQUIPMENT COMPANY**  
 5151 DR MARTIN LUTHER KING BLVD  
 FORT MYERS, FL  
 US 33905  
 Contact: TODD LARK  
 tlark@altaequipfl.com  
 T:  
 F: (239)481-3302



### OIL CONDITION

Visc @ 100°C	cSt	<b>14.3</b>	14.6	15.0	---
Base Number (BN)	mg KOH/g	<b>9.3</b>	7.3	7.3	---
Oxidation (PA)	%	<b>72</b>	106	108	---

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Soot %	%	<b>0.5</b>	1.1	1.2	---
Nitration (PA)	%	<b>73</b>	118	119	---
Sulfation (PA)	%	<b>60</b>	80	83	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>13</b>	13	10	---
Sodium	ppm	<b>&lt;1</b>	9	5	---
Potassium	ppm	<b>3</b>	7	6	---



### WEAR METALS

Iron	ppm	<b>11</b>	85	61	---
Copper	ppm	<b>1</b>	114	95	---
Lead	ppm	<b>&lt;1</b>	172	149	---
Tin	ppm	<b>&lt;1</b>	5	4	---
Aluminum	ppm	<b>6</b>	12	7	---
Chromium	ppm	<b>&lt;1</b>	4	3	---
Molybdenum	ppm	<b>253</b>	200	163	---
Nickel	ppm	<b>&lt;1</b>	2	<1	---
Titanium	ppm	<b>&lt;1</b>	<1	<1	---
Silver	ppm	<b>&lt;1</b>	<1	0	---
Manganese	ppm	<b>&lt;1</b>	3	3	---
Vanadium	ppm	<b>&lt;1</b>	<1	<1	---



### ADDITIVES

Calcium	ppm	<b>1417</b>	2898	2216	---
Magnesium	ppm	<b>779</b>	824	618	---
Zinc	ppm	<b>1044</b>	1871	1371	---
Phosphorus	ppm	<b>907</b>	1530	1047	---
Barium	ppm	<b>&lt;1</b>	0	0	---
Boron	ppm	<b>297</b>	24	23	---

**Depot:** VOLVO0090  
**Unique No:** 11035304  
**Signed:** Sean Felton  
**Report Date:** 21 May 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

