

# OIL ANALYSIS REPORT

**VOLVO  
PENTA**

## A725119 - CENTER DIESEL ENGINE

**Sample No:** VPA016713

**Oil Type:** CHEVRON DELO 400 SDE SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA016713</b>	VPA016722	VPA016714	---
Sample Date	<b>29 Aug 2019</b>	08 Dec 2018	27 May 2018	---
Machine Hours	<b>305</b>	199	104	---
Oil Hours	<b>106</b>	95	46	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	---

### WERNER LEHNER

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.7</b>	13.7	13.63	---
Oxidation (PA)	%	<b>52</b>	60	40	---

### CONTAMINATION

Soot %	%	<b>0.3</b>	0.7	0.1	---
Nitration (PA)	%	<b>66</b>	53	33	---
Sulfation (PA)	%	<b>52</b>	62	42	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>6</b>	6	8	---
Sodium	ppm	<b>3</b>	2	3	---
Potassium	ppm	<b>0</b>	2	7	---

### WEAR METALS

Iron	ppm	<b>14</b>	11	8	---
Copper	ppm	<b>5</b>	4	5	---
Lead	ppm	<b>2</b>	1	2	---
Tin	ppm	<b>0</b>	<1	<1	---
Aluminum	ppm	<b>3</b>	5	4	---
Chromium	ppm	<b>&lt;1</b>	<1	<1	---
Molybdenum	ppm	<b>16</b>	76	57	---
Nickel	ppm	<b>&lt;1</b>	1	1	---
Titanium	ppm	<b>&lt;1</b>	0	<1	---
Silver	ppm	<b>0</b>	0	0	---
Manganese	ppm	<b>&lt;1</b>	<1	<1	---
Vanadium	ppm	<b>0</b>	0	0	---

### ADDITIVES

Calcium	ppm	<b>1459</b>	1272	1020	---
Magnesium	ppm	<b>804</b>	656	1024	---
Zinc	ppm	<b>805</b>	762	1106	---
Phosphorus	ppm	<b>688</b>	684	1017	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>112</b>	201	2	---

### 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 condition of the oil is acceptable for the time in service.

**Depot:** VPWERANA

**Unique No:** 8728407

**Signed:** Don Baldrige

**Report Date:** 09 Sep 2019

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## GRAPHS

