

PLANT MAINTENANCE RECORD

Last updated: 11/09/2017
Last reviewed: 11/09/2017

Asset No. AS-365 AS 415

PURCHASE DATE <u>14-2-2019</u>		DESCRIPTION <u>Volvo A45G Articulated Dump Truck</u>		REG No.	
MODEL <u>A45G</u>	BUILT		OIL ENGINE		OIL DRUM
SERIAL NO. <u>VCE0A45GJ00322330</u>			OIL HYDRAULICS		OIL TORQUE DRUM
ENGINE NO. <u>1K127</u>			OIL TRANSMISSION		COOLANT
VIN NO.			OIL DIFFERENTIAL		
			OIL FINAL DRIVE		
FILTER ENGINE			TYRE FRONT <u>29.5 R25</u>	PRESSURE	
ENGINE BYPASS			TYRE REAR <u>29.5 R25</u>	PRESSURE	
FILTER HYDRAULICS					
AXLE BREATHER			BATTERY		
FILTER FAN					
FILTER TRANSMISSION					
FILTER AIR INNER	OUTER		SERVICE PERIOD	HOURS	
FILTER FUEL				Km	
FILTER FUEL SECONDARY					
WATER SEPARATOR			OTHER		
FILTER AIRCON					
FILTER CAB					
BELTS					
OTHER					

DATE	DETAILS	Km/Hours	DATE	DETAILS	Km/Hours
3.4.19	Carry out 250 hr Service	307			
4.5.19	Carry out 500hr Service	573			
5.8.19	Carry out 1000hr Service	1034			
5.11.19	Paul Hines carry out 500hr Service	1581			
8.2.20	Scott/KRIS carry out 7000 hr Service	2075			
1.5.20	KRIS Carry out 500 hr Service	2533			
5/8/20	PAUL/SCOTT, CAMPBELL OUT 1000HR SERVICE	3030.			
4/11/20	Anthony / KRIS Carry out 500hr Service	3552			
12/21	KRIS Carry out 4000 Hr Service	3968			
1/5/21	Scott / KRIS Carry out 500hr Service	4481			
4/5/21	PAUL HINES/ LUCAS CAMPBELL, CARRY OUT 1000HR	5021			
30/10/21	SCOTT/ ADAM RUSSELL, CARRY OUT 500 HR SERVICE	5493			
2.22	PAUL HINES/ LUCAS CAMPBELL, 6000HR SERVICE	5926 HRS			
2.22	Paul + Craig Clearance Caravan	5930			
1-7-22	CRAG + PAUL 500 HR SERVICE	6668			
5-10-22	PAUL + CRAG 1000 HR SERVICE	7097			
5-3-23	PAUL + CRAG 500HR SERVICE	7554			
7-23	Paul + Lavchie (wa) 4000HR SERV	8000			
4-10-23	PAUL 500 HR SERVICE.	8468			
5-24	PAUL + CRAG. 1000 HR SERVICE	9051			
1-25	PAUL + CRAG. 500 HR SERVICE	9480			
4.7.23	VALVE LASH ADJUSTMENT ELITE	8044			



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL No. VCE0A45GJ00322330
UNIT No. AS415
COMPARTMENT TYPE Diesel Engine
COMPARTMENT NAME Diesel Engine
MACHINE LOCATION Clyde
SYSTEM CAPACITY 55.0 Ltrs

CURRENT Normal
SAMPLE
STATUS

UIN : 072C3E0

		CURRENT	2	3	4	5
SAMPLE NO.		46939187	704119434	46501528	46483262	43300552
SAMPLED DATE		13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	25-Mar-23
DATE RECEIVED		20-Jan-25	10-May-24	27-Oct-23	18-Aug-23	06-Apr-23
OIL MAKE		Performance Harmony	Performance Harmony	Performance Harmony	Performance Harmony	Performance Harmony
OIL GRADE		SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40	SAE 15W40
MACHINE	Hrs	9480	9051	8468	8000	7554
COMPONENT	Hrs	9480	9051	8468	8000	7554
OIL	Hrs	429	583	500	500	457
OIL ADDED	Ltrs		2.0			4.0
FILTER	Hrs	429	583	500	500	457
OIL CHANGED		Changed	Changed	Changed	Changed	Changed
WORK ORDER						
Metals (ppm)						
*Aluminium (Al)		3	2	3	3	2
*Copper (Cu)		1	1	1	1	<1
*Chromium (Cr)		<1	<1	<1	<1	<1
*Iron (Fe)		4	7	8	8	5
*Lead (Pb)		1	1	1	<1	<1
*Tin (Sn)		1	<1	<1	<1	<1
Contaminants (ppm)						
*Silicon (Si)		2	3	4	4	3
Boron (B)		62	41	46	50	46
*Sodium (Na)		1	<1	1	1	2
*Potassium (K)		<1	1	<1	<1	<1
*Phosphorus (P)		976	929	939	998	1048
*Molybdenum (Mo)		88	82	88	90	96
*Magnesium (Mg)		9	9	13	8	10
*Calcium (Ca)		2087	2031	2146	2206	2241
*Zinc (Zn)		1167	1091	1113	1151	1215
Physical Tests						
Water (%) (FTIR)		<0.1	<0.1	<0.1	<0.1	<0.1
Fuel (%)		1	2	3	2	5
Soot (%) (FTIR)		0.1	0.1	0.2	0.1	<0.1
Viscosity (cSt, 100°C)		12.4	12.3	12.4	12.4	12.1
Oxidation (Abs) (FTIR)		13.4	15.2	14.7	15.3	14.8
PQ Index		<10	<10	<10	<10	<10
Sulphation (Abs) (FTIR)		21.0	19.6	20.1	19.8	20.2
Total Base Number (FTIR)		7.7	7.3	7.5	7.3	7.6

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL No. VCE0A45GJ00322330
UNIT No. AS415
COMPARTMENT TYPE Hydraulic
COMPARTMENT NAME Hydraulic
MACHINE LOCATION Clyde
SYSTEM CAPACITY 175.0 Ltrs

CURRENT SAMPLE STATUS
Caution

UIN : 072C3E1

	CURRENT	2	3	4	5
SAMPLE NO.	46933628	46947114	46485001	46483249	43297219
SAMPLED DATE	13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	25-Mar-23
DATE RECEIVED	20-Jan-25	10-May-24	27-Oct-23	21-Aug-23	06-Apr-23
OIL MAKE	Elf	Elf	Elf	Azolla ZS	Azolla ZS
OIL GRADE	ISO 68	ISO 68	ISO 68	ISO 68	ISO 68
MACHINE Hrs	9480	9051	8468	8000	7554
COMPONENT Hrs	9480	9051	8468	8000	7554
OIL Hrs	1480	1051	500	4000	3586
OIL ADDED Ltrs		5.0			
FILTER Hrs	1480	1051	500		1629
OIL CHANGED	Not Changed	Not Changed	Not Changed	Changed	Not Changed
WORK ORDER					
Metals (ppm)					
*Aluminium (Al)	2	2	2	3	3
*Copper (Cu)	1	1	1	2	2
*Chromium (Cr)	<1	<1	<1	<1	<1
*Iron (Fe)	6	7	6	10	10
*Lead (Pb)	1	1	<1	2	3
*Tin (Sn)	<1	<1	<1	<1	<1
Contaminants (ppm)					
*Silicon (Si)	5	4	4	7	7
Boron (B)	<5	<5	<5	<5	<5
*Sodium (Na)	<1	<1	1	1	2
*Potassium (K)	<1	<1	<1	<1	<1
*Phosphorus (P)	285	317	316	293	331
*Molybdenum (Mo)	<1	<1	<1	<1	<1
*Magnesium (Mg)	1	1	1	1	1
*Calcium (Ca)	57	68	70	58	61
*Zinc (Zn)	352	382	380	387	416
*Barium (Ba)	<1	<1	<1	<1	<1
Physical Tests					
Water (%) (FTIR)	<0.1	<0.1	<0.1	<0.1	<0.1
PQ Index	<10	<10	<10	<10	<10
Oxidation (Abs) (FTIR)	5.6	6.2	5.9	10.6	10.3
Viscosity (cSt,40°C)	64	64	64	62	61
Particle Count					
*ISO 4406 Code	17/16/13	18/16/11	18/16/12	18/16/13	20/18/14
*ISO Clean 4 Micron (c)	17	18	18	18	20
*ISO Clean 6 Micron (c)	16	16	16	16	18
*ISO Clean 14 Micron (c)	13	11	12	13	14

DIAGNOSIS

Wear levels lower than 8 micron appear satisfactory. However, Oil cleanliness rating exceeds considered recommended limit. Other contaminant levels acceptable. Viscosity within specified operating range. Action: Check filter(s)/screen and sampling procedure as a precaution. Resample at a reduced service interval to further monitor.

NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL NO. VCE0A45GJ00322330
UNIT NO. AS415
COMPARTMENT TYPE Transmission
COMPARTMENT NAM Transmission
MACHINE LOCATION Clyde
SYSTEM CAPACITY 43.0 Ltrs

CURRENT Normal
SAMPLE
STATUS

UIN : 072C3D

	CURRENT	2	3	4	5
SAMPLE NO.	46933601	46944624	46501549	46483212	43300998
SAMPLED DATE	13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	11-Jul-22
DATE RECEIVED	20-Jan-25	10-May-24	27-Oct-23	18-Aug-23	19-Jul-22
OIL MAKE	AT102	AT102	AT102	AT102	AT102
OIL GRADE	-	-	-	-	-
MACHINE	Hrs 9480	9051	8468	8000	6667
COMPONENT	Hrs 9480	9051	8468	8000	6667
OIL	Hrs 1480	1051	500	1000	745
OIL ADDED	Ltrs				
FILTER	Hrs 429	1051	500	1000	745
OIL CHANGED	Not Changed	Not Changed	Not Changed	Changed	Not Changed
WORK ORDER					
Metals (ppm)					
*Aluminium (Al)	6	6	4	11	4
*Copper (Cu)	15	17	11	24	9
*Chromium (Cr)	<1	<1	<1	<1	<1
*Iron (Fe)	16	16	10	20	8
*Lead (Pb)	<1	<1	<1	<1	<1
*Tin (Sn)	1	1	1	2	1
Contaminants (ppm)					
*Silicon (Si)	3	3	3	4	2
Boron (B)	85	93	89	110	105
*Sodium (Na)	<1	<1	1	2	<1
*Potassium (K)	<1	<1	<1	<1	<1
*Phosphorus (P)	181	223	185	279	262
*Molybdenum (Mo)	<1	<1	<1	<1	<1
*Magnesium (Mg)	1	1	1	1	1
*Calcium (Ca)	79	94	78	154	145
*Zinc (Zn)	4	5	4	5	4
Physical Tests					
Water (%) (FTIR)	<0.1	<0.1	<0.1	<0.1	<0.1
PQ Index	<10	<10	10	<10	<10
Viscosity (cSt,40°C)	30	30	30	28	30
Oxidation (Abs) (FTIR)	17.1	17.1	16.6	24.0	23.4

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels acceptable. Viscosity within specified operating range. Action: Resample next service interval to further monitor. NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL No. VCE0A45GJ00322330
UNIT No. AS415
COMPARTMENT TYPE Brake Cooling
COMPARTMENT NAME Brake Cooling
MACHINE LOCATION Clyde
SYSTEM CAPACITY 188.0 Ltrs

CURRENT SAMPLE STATUS Normal

UIN : 072C3E4

	CURRENT	2	3	4	5
SAMPLE NO.	46933626	46947047	46485030	46483241	43883628
SAMPLED DATE	13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	25-Mar-23
DATE RECEIVED	20-Jan-25	10-May-24	27-Oct-23	21-Aug-23	30-Mar-23
OIL MAKE	WB102	WB102	WB102	WB102	WB102
OIL GRADE	-	-	-	-	-
MACHINE Hrs	9480	9051	8468	8000	7554
COMPONENT Hrs	9480	9051	8468	8000	7554
OIL Hrs	1480	1051	500	4000	3586
OIL ADDED Ltrs					2.0
FILTER Hrs	429	1051	500	2000	457
OIL CHANGED	Not Changed	Not Changed	Not Changed	Changed	Not Changed
WORK ORDER					
Metals (ppm)					
*Aluminium (Al)	2	2	2	2	1
*Copper (Cu)	71	68	58	1	133
*Chromium (Cr)	<1	<1	<1	1	<1
*Iron (Fe)	11	13	13	54	14
*Lead (Pb)	1	<1	1	<1	<1
*Tin (Sn)	<1	<1	1	1	<1
Contaminants (ppm)					
*Silicon (Si)	8	9	10	3	7
Boron (B)	70	77	80	10	18
*Sodium (Na)	1	2	1	1	<1
*Potassium (K)	<1	3	<1	<1	1
*Phosphorus (P)	1086	1165	1233	1000	1197
*Molybdenum (Mo)	<1	<1	2	4	2
*Magnesium (Mg)	6	7	8	42	4
*Calcium (Ca)	2757	3105	3341	2627	2790
*Zinc (Zn)	1245	1220	1282	1139	1230
*Barium (Ba)	<1	<1	<1	<1	<1
Physical Tests					
Water (%) (FTIR)	<0.1	<0.1	<0.1	<0.1	<0.1
PQ Index	<10	<10	<10	<10	<10
Oxidation (Abs) (FTIR)	12.5	12.2	13.1	18.1	17.3
Viscosity (cSt,40°C)	42	42	41	51	42
Particle Count					
*ISO 4406 Code	20/18/14	20/17/11	21/18/11	20/17/13	19/16/13
*ISO Clean 4 Micron (c)	20	20	21	20	19
*ISO Clean 6 Micron (c)	18	17	18	17	16
*ISO Clean 14 Micron (c)	14	11	11	13	13

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range, however additive package indicates a mixture of oils. Action: Resample next service interval to further monitor.

NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL No. VCE0A45GJ00322330
UNIT No. AS415
COMPARTMENT TYPE Drop Box
COMPARTMENT NAME Drop Box
MACHINE LOCATION Clyde
SYSTEM CAPACITY 26.0 Ltrs

CURRENT
SAMPLE
STATUS

UIN : 072C3E3

	CURRENT	2	3	4	5
SAMPLE NO.	46933621	46944623	46486942	46483195	43297093
SAMPLED DATE	13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	25-Mar-23
DATE RECEIVED	20-Jan-25	10-May-24	27-Oct-23	17-Aug-23	30-Mar-23
OIL MAKE	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102
OIL GRADE	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80
MACHINE COMPONENT	Hrs 9480	Hrs 9051	Hrs 8468	Hrs 8000	Hrs 7554
OIL	Hrs 9480	Hrs 9051	Hrs 8468	Hrs 8000	Hrs 7554
OIL ADDED	Ltrs 1480	Ltrs 1051	Ltrs 500	Ltrs 2000	Ltrs 1628
FILTER	Hrs Not Applicable			0	
OIL CHANGED WORK ORDER	Not Changed	Not Changed	Not Changed	Changed	Not Changed
Metals (ppm)					
*Aluminium (Al)	2	2	3	10	11
*Copper (Cu)	2	1	1	1	1
*Chromium (Cr)	2	2	1	4	3
*Iron (Fe)	236	178	79	329	248
*Lead (Pb)	<1	<1	1	<1	<1
*Tin (Sn)	1	1	<1	2	1
*Nickel (Ni)	2	1	1	2	2
Contaminants (ppm)					
*Silicon (Si)	2	2	2	3	3
Boron (B)	222	240	294	195	163
*Sodium (Na)	<1	<1	1	1	<1
*Potassium (K)	<1	<1	<1	<1	<1
*Phosphorus (P)	2104	2117	2166	1297	1202
*Molybdenum (Mo)	3	2	1	6	6
*Magnesium (Mg)	1	1	3	<1	<1
*Calcium (Ca)	16	2	5	5	9
*Zinc (Zn)	14	4	7	6	9
Physical Tests					
Water (%) (FTIR)	<0.1	<0.1	<0.1	<0.1	<0.1
Viscosity (cSt,40°C)	50	51	52	59	57
PQ Index	97	1179	13	137	81
Oxidation (Abs) (FTIR)	57.3	51.6	52.0	7.1	6.9

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Results indicate a mixture of oils. Viscosity low for specified oil grade. Action: Please confirm oil type and grade used in this component. Resample at a reduced service interval to further monitor. NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL NO. VCE0A45GJ00322330
UNIT NO. AS415
COMPARTMENT TYPE Front Differential
COMPARTMENT NAM Front Differential
MACHINE LOCATION Clyde
SYSTEM CAPACITY 26.0 Ltrs

CURRENT SAMPLE STATUS Caution

UIN : 072C3D

	CURRENT	2	3	4	5
SAMPLE NO.	46933605	46944629	46485012	46483240	43297057
SAMPLED DATE	13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	25-Mar-23
DATE RECEIVED	20-Jan-25	08-May-24	27-Oct-23	21-Aug-23	17-Apr-23
OIL MAKE	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102
OIL GRADE	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80
MACHINE	Hrs 9480	9051	8468	8000	7554
COMPONENT	Hrs 9480	9051	8468	8000	7554
OIL	Hrs 1480	1051	500	2000	1628
OIL ADDED	Ltrs				
FILTER	Hrs				
OIL CHANGED	Not Changed	Not Changed	Not Changed	Changed	Not Changed
WORK ORDER					
Metals (ppm)					
*Aluminium (Al)	<1	<1	<1	<1	<1
*Copper (Cu)	<1	2	<1	<1	<1
*Chromium (Cr)	<1	<1	<1	1	<1
*Iron (Fe)	19	18	12	48	45
*Lead (Pb)	<1	1	<1	<1	<1
*Tin (Sn)	<1	<1	<1	<1	<1
Contaminants (ppm)					
Boron (B)	269	265	299	204	201
*Silicon (Si)	1	2	2	2	1
*Sodium (Na)	<1	2	1	1	<1
*Potassium (K)	<1	2	<1	<1	<1
*Phosphorus (P)	2182	2285	2178	1334	1406
*Molybdenum (Mo)	1	1	<1	1	2
*Magnesium (Mg)	1	2	2	<1	<1
*Calcium (Ca)	6	6	5	6	5
*Zinc (Zn)	6	7	5	8	7
Physical Tests					
Water (%) (FTIR)	<0.1	<0.1	<0.1	<0.1	<0.1
PQ Index	15	16	12	39	27
Viscosity (cSt,40°C)	53	53	53	61	63
Oxidation (Abs) (FTIR)	60.1	54.9	55.1	6.0	5.8

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Results indicate a mixture of oils. Viscosity slightly lower than typical. Action: Please confirm oil type and grade used in this component. Resample at a reduced service interval to further monitor.
NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL NO. VCE0A45GJ00322330
UNIT NO. AS415
COMPARTMENT TYPE Centre Differential
COMPARTMENT NAM Centre Differential
MACHINE LOCATION Clyde
SYSTEM CAPACITY 26.0 Ltrs

CURRENT SAMPLE STATUS Caution

UIN : 072C3E2

	CURRENT	2	3	4	5
SAMPLE NO.	46939344	46944613	46485052	46483251	43293418
SAMPLED DATE	13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	15-Oct-22
DATE RECEIVED	20-Jan-25	10-May-24	27-Oct-23	17-Aug-23	24-Oct-22
OIL MAKE	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102
OIL GRADE	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80
MACHINE COMPONENT	Hrs 9480	Hrs 9051	Hrs 8468	Hrs 8000	Hrs 7096
OIL	Hrs 9480	Hrs 9051	Hrs 8468	Hrs 8000	Hrs 7096
OIL ADDED	Ltrs 1480	Ltrs 1051	Ltrs 500	Ltrs 2000	Ltrs 3128
FILTER					
OIL CHANGED	Not Changed	Not Changed	Not Changed	Changed	Not Changed
WORK ORDER					
Metals (ppm)					
*Aluminium (Al)	<1	<1	<1	<1	<1
*Copper (Cu)	<1	<1	<1	<1	<1
*Chromium (Cr)	<1	<1	<1	1	1
*Iron (Fe)	19	22	18	75	56
*Lead (Pb)	<1	<1	<1	<1	<1
*Tin (Sn)	<1	<1	<1	<1	<1
Contaminants (ppm)					
Boron (B)	263	272	276	220	202
*Silicon (Si)	1	2	2	2	1
*Sodium (Na)	<1	<1	1	1	<1
*Potassium (K)	<1	<1	<1	<1	<1
*Phosphorus (P)	2178	2143	2008	1399	1239
*Molybdenum (Mo)	<1	1	<1	1	<1
*Magnesium (Mg)	1	1	2	<1	<1
*Calcium (Ca)	5	3	5	4	4
*Zinc (Zn)	5	3	5	6	8
Physical Tests					
Water (%) (FTIR)	<0.1	<0.1	<0.1	<0.1	<0.1
PQ Index	56	206	44	115	285
Viscosity (cSt,40°C)	53	53	53	61	60
Oxidation (Abs) (FTIR)	60.9	55.1	55.4	6.0	5.3

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Results indicate a mixture of oils. Viscosity slightly lower than typical. Action: Please confirm oil type and grade used in this component. Resample at a reduced service interval to further monitor.
NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.



Programmed Oil Sampling

CLIENT NAME
BAYPORT CIVIL P/L
CLIENT ADDRESS
55 Colemans Rd
Carrums Downs Vic 3201

MAKE Volvo
MODEL A45G
SERIAL NO. VCE0A45GJ00322330
UNIT NO. AS415
COMPARTMENT TYPE Rear Differential
COMPARTMENT NAM Rear Differential
MACHINE LOCATION Clyde
SYSTEM CAPACITY 26.0 Ltrs

CURRENT SAMPLE STATUS
Caution

UIN : 072C3D

	CURRENT	2	3	4	5
SAMPLE NO.	46933602	46944592	46501532	46483258	43297236
SAMPLED DATE	13-Jan-25	02-May-24	14-Oct-23	10-Jul-23	25-Mar-23
DATE RECEIVED	20-Jan-25	08-May-24	27-Oct-23	17-Aug-23	17-Apr-23
OIL MAKE	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102	Super Gear Axle Oil GO102
OIL GRADE	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80	SAE 75W80
MACHINE COMPONENT	Hrs 9480	Hrs 9051	Hrs 8468	Hrs 8000	Hrs 7554
OIL	Hrs 1480	Hrs 1051	Hrs 500	Hrs 2000	Hrs 1628
OIL ADDED	Ltrs	Ltrs	Ltrs	Ltrs	Ltrs
FILTER	Hrs	Hrs	Hrs	Hrs	Hrs
OIL CHANGED	Not Changed	Not Changed	Not Changed	Not Changed	Not Changed
WORK ORDER					
Metals (ppm)					
*Aluminium (Al)	<1	<1	<1	<1	<1
*Copper (Cu)	<1	1	<1	1	<1
*Chromium (Cr)	1	1	<1	1	<1
*Iron (Fe)	31	25	15	51	44
*Lead (Pb)	<1	1	<1	<1	<1
*Tin (Sn)	<1	<1	<1	<1	<1
Contaminants (ppm)					
Boron (B)	254	278	292	217	200
*Silicon (Si)	2	3	3	1	<1
*Sodium (Na)	<1	1	1	1	<1
*Potassium (K)	<1	5	<1	<1	<1
*Phosphorus (P)	2161	2311	2103	1395	1385
*Molybdenum (Mo)	2	2	2	1	<1
*Magnesium (Mg)	1	2	3	<1	<1
*Calcium (Ca)	36	44	45	4	5
*Zinc (Zn)	26	30	30	6	7
Physical Tests					
Water (%) (FTIR)	<0.1	0.1	<0.1	<0.1	<0.1
PQ Index	32	25	12	22	16
Viscosity (cSt,40°C)	54	54	54	62	63
Oxidation (Abs) (FTIR)	59.5	54.2	54.8	6.0	5.8

DIAGNOSIS

All wear rates normal. Abrasive and other contaminant levels are acceptable. Results indicate a mixture of oils. Viscosity slightly lower than typical. Action: Please confirm oil type and grade used in this component. Resample at a reduced service interval to further monitor.
NATA Accreditation No. 825. Site No. 2024. *NATA accreditation covers the performance of this service.

DATE	FITTERS NAME	WORK DETAILS	
1-2-22	PHIL CRAIG	HONOUR VILLAGE. COOLANT CHANGE PART OF 6000 HR SERVICE. REMOVE FLOOR SECTION TO ACCESS BLEED VALVES AT TRANS COOLER.	5930 HRS.
		EXHAUST SUPPORT BRACKET REAR OF TURBO FLEX. MOUNT PLATE WELDED CRACKED. REMOVE BRACKET - REPAIR AT W/SHOP, RETURN TO MACHINE + REFIT	
1-2-22	CRAIG	Operator reported trans oil level warning was on, confirmed with dash oil level, added 10-15 litres till 80% hot . OK. Redrilled spiral band on hitch hoses , and replaced missing cable strap. 834429 ✓	11
8-2-22	CRAIG	Put operator's book into cabin. Fitted new lynch pin to hitch safety bar.	—
2-2-22	PHIL	HONOUR VILLAGE ENGINE OIL FILTER STRIKE CLAMP FOR TUBE TO REMOVE FILTERS - BOLT BROKEN, MISSING INSERT. REPLACED INSERTS + BOLTS, REPOSITION MOUNT PLATE. RESET SERVICE REMINDER ON DISPLAY SCREEN.	6025 HRS. 834429
7-3-22	CRAIG	Replace 17497050 rear view camera as the lense was scratched 6,101 hrs giving a cloudy, unusable image. (AS413) 83449;	
7-3-22	PHIL	BOT. RIDGE. COOLANT LOW . OPERATOR HAD REPORTED ALARM BOUNDED AT START UP, SOMETIMES. FOUND COOLANT LEVEL CONTROL TO MIN/MAX ENGINE WARM. ADDED 3.5 LT. TO MAX LINE. WAIT FOR NEXT REPORT.	6163
2-4-22	CRAIG	Replaced 4 grease nipples due to wear at tailgate pivots and top lift cyl brgs. Replace grease gun hose and chuck , clean out gun tool box.	61257
1-5-22	REYRE LATROBE	Went out to Honour Village and fit up a SH to Position 5	835536
1-7-22	REYRE LATROBE	Went out to Honour Village and fit up 6x New Bridgestone 29.5 R25 Tyres which John picked up from Bridgestone for me.	835578 835949 6668HRS
1-7-22	CRAIG, PHIL	HONOUR VILLAGE. COMPLETE 500 HR SERVICE AS PER MAINT. GUIDE. OIL SAMPLES x8. STRAIGHTEN TOP STEP - ENTRY TO CABIN. REAR BODY CURTAINS ADDED ONE SHIRT TO EACH SIDE TO INCREASE FRONT RUBBER CLEARANCES. LOW BEAM HEADLIGHTS BOTH NOT WORKING, CHECK POWER / FUSES.	6668 HRS.

173415

DATE	FITTERS NAME	WORK DETAILS	
-7-22	CRAG + PHIL	HEADLIGHTS REPAIR BOTH SIDES. TAILGATE ANCHOR R/H HORIZONTAL BOLT/NUT LOOSE. TIGHTEN R/H + CHECK L/H.	6668 420
		ENGINE OIL FILTER BASE - LEAK AT ENTRY TO REMOTE HOUSING. FITTING LOOSE IN HOUSING. TIGHTEN FITTING + RETENTION PIPE	
2-7-22	CRAG + PHIL	Operator reported engine oil leak. Found 17253287 oil pipe leaking oil from a crack in tube near connection to adapter base. Fitted new pipe, tested OK, wash down engine in part. Fitted new control switch for bonnet lift. Fitted new accessory drive belts, due to damage. Replace dewy seal at inlet fitting on oil filter base. Replaced missing bolts on cover plate for heated body inlet.	6,722 B36221 B35938
5-10-22	CRAG	Replace faulty FIRE EXTINGUISHER. Replaced LHS arm rest found to be broken. Lubricated and realigned seat sliding rails.	7097 hi B36812
5-10-22	PHIL CRAG	H. VILLAGE 1000HR SERVICE STARTED TO BE CONTACTED IN FOX	7097 HCA
5-11-22	"	SERVICE REWARD. COMPLETE 1000HR SERVICE. ENG OIL FILTER - LEAK FROM FRONT FITTING INTO BASE. LOOSEN TUBE TO TIGHTEN ADAPTER. REPLACED 8 MISSING WHEEL NUT CAPS.	B36815
		TAIL GATE BUFFERS COMPLETED DRILLING OUT OF BROKEN BOLTS, DID NOT FIT NEW BUFFERS, INSUFFICIENT CLEARANCE BETWEEN BODY + SIDE ARMS. ARMS APPEAR BENT + OR EXTRA SHIMS REQUIRED - ENDS OF TAILGATE	
-12-22	CJD Ben Davis	Went out to PQV to check Park Brake Failure Check At Next Stop CODE - EF5502-7, Check Codes - Last Occurred 29-11-22. Carried out Park Brake Test - PASSED. Update Software to latest Service Pack As Per Bulletin ACT 552-12. 728740	B37419

DATE	FITTERS NAME	WORK DETAILS	
10-12-22	CRAIG + PHIL	Top up hyd and brake oils on level ground. Inspect body pivots. Fit new operators seat 175 232 47 due to various faults. Seat came with a new seat belt . Tighten loose ball studs on door strut. Check/test turbo timer and park brake for warnings after software update, seems OK.	7,309 h. 8,368 h.
2-3-23	CRAIG.	Operator reported the body up warning would not go off when the body was fully down. Inspected and reset sensor, warning off 24 times, unstable. Found body sensor mount bracket bolts were loose, and bracket out of position. Reposition and tighten bolts. Tighten peg on body for sensor lever, reset and test OK.	7,440 h.
25-3-23	Phil + CRAIG	H. Village 500 HR Service completed as per Maint. Review 8 OIL Samples. Brake Pedal Rubber Reinstall to Pedal. Clean out dirt under floor mat. Pushing on pedal. Attempt to replace T/Lite Bearings . Change to lock 4/4 rim .	7554
5/5/23	SCOTT.	INSPECT TRUCK vs REPORT of low power from truck, smoke/dust coming from under hood. Run truck, appears OK. Remove pecker cover, check all exhaust brake pecker arms, valve train etc all appear OK. Convey machine back to workshop.	7724 hrs.
6/5/23	SCOTT.	REPLACE ACCANT OVERFLOW TANK 2136-0161 due to crack at small fitting. Repair of tank.	8387 h.
7/5/23	SCOTT.	TEST TRUCK vs LOW POWER FAULT. EXHAUST BRAKE OVERDR CLINDER FOUND TO BE STAYING ON AFTER EXHAUST BRAKE OPERATED. FLAP CUTTING OFF EXHAUST AND PUSHING GASES BACK THROUGH AIR CLEANERS. CONTINUE TO TEST TRUCK, ISOLATE POWER FROM 17 COMBINATION AIR VALVE ON SIDE OF ENGINE. CONFIRM AIR VALVE STICKING/FAULT.	8587 h.
8/5/23	SCOTT	COLLECT NEW AIR VALVE 2199-1157 FROM CSD DANBENCK. FIT TO TRUCK AND TEST (OK). REPLACE INNER AND OUTER AIR CLEANERS DUE TO SCOT.	7735 hrs
11/5/23	LUCAS CAMPBELL.	REPLACE ENGINE SERPENTINE BELT TENSIONER SENT UP FROM CARRUM.	7736 hrs.

AS415

DATE	FITTERS NAME	WORK DETAILS	
18/5/23	SCOTT.	REPLACE INNER/ OUTER ENGINE AIR CLEANERS.	7802 HRS.
25/5/23	SCOTT.	FIT NEW UHF RADIO DUE TO OLD UNIT CUTTING OUT.	7814 HRS.
24/6/23	SOEL JOUEL, L. BROWN		
	WILLIAM ADAMS.	CARRY OUT 4000 HR SERVICE, PARTS B39470, WADAMS F/SERVICE	8,000 HRS
6/7/23	SCOTT.	INSPECT MACHINE RE CODE ON DASH 'POSSIBLE FUEL LEAKAGE'. (SE 2301) CHECK FUEL FILTERS ETC, NIL LEAKS, CODE CAME OUT. ALL APPEARS O.K.	8057 HRS
10/7/23	PAUL HINES/ LACHIE BROWN		
25-1-24	MURRAY Auto/Elec ^{BRUCE}	Went out to PQV and Diagnose Why the Air Con Was not Working, Found the CAR FILTERS to be Broken and Cleaned them out, Test Air Con Working OK, Bruce recommends to Change the Dash Panel Controller for the Air Con, Which Bruce had Ordered a New One by.	841071
30-1-24	Matthew O'neil	Reported Com's Fault Res came up on Dash and that it went into Jerate Mode. Shut the machine down and the re-start Au OK.	
7-2-24	Matt O'neil	Replace L45 grease hose at Lift cyl bearing (FROM STOCK)	88751
21-3-24	CJD Jim	Went out to Peninsula Quarries and Diagnose Why ECU Network Error Was Coming On Dash, Check Cables and Found the Operator Was Turning OFF The Override Isolator Switch Every Day, Which can Cause Network ECU Codes, Told Matt to just Turn OFF Key.	841425
15-4-24	CRAIG	Quarry personnel requested the truck be inspected for damage after the tipping trailer rolled over. Inspected the trailer for general damage, including the mounting pins, lift cylinders and tail gate. Inspected the bogie rubber suspension for breakage. Inspected the hitch, hoses, found the hose strap and springs dislodged. Refitted springs + strap correctly. Hosing looks OK. This was a general visual inspection, all seems OK.	8996
		PTO.	

AS415

DATE	FITTERS NAME	WORK DETAILS	
2-5-24	Phil, CRAIG	P.Q.U. 1000 HR. SERVICE COMPLETED AS PER VOLVO MAINT. LIST. OK SAMPLES x 8. CLUTCH HOSES . REMAIN + REPOSITION SPIRAL CLAMP + STRAPS. TURB INDICATORS NOT WORKING - REPAIRED FUSE OK. Re-mount 44F MIKE bracket with screws + nuts. Both cab filters replaced. Fitted new check valve to air cleaner housing under filters. Replaced hitch hose springs and strap due to stretched springs; re position spiral band. New brush into cabin. Tested emergency stop buttons, tested OK. Replaced key start switch and barrel due to key pulling out in any position. Replaced A/C cond control unit with 17532113 due to A/C cond problems as advised by Norbury A/E. Straighten bottom cabin access step. Fit sleeve to breather hose under tank guard 812525 CA to stop wear to hose.	9051 84154 84145 841014
13-8-24	CRAIG	Check truck park brake control circuit with pressure gauge for cause of EF 5502-7 park brake does not engage or lamp does not light. Tested for approx 20-30 mins, no fault found, pressure always dropped from park brake to apply caliper. Operator to report further problems	9,2631
21-8-24	CRAIG	Removed remaining silicon from windscreen joint RHS pane to centre pane. Refill with wurth window sealant .	9,2921
12-12-24	Phil	P.Q.U. ENGINE NO START MESSAGE 3600.9 ECCU NETWORK COMMS INTERNAL . CHECKED ALL FUSES. RELAY 13 RELATED TO ECCU SUPPLY. SWAPPED TO POSITION 17 - STARTED TRUCK, PUT TO WORK FOLLOWING DAY OPERATOR REPORTED ECCU MESSAGES APPEARING ON MONITOR PANEL. INSTALLED NEW 21244698 RELAY POS 13 + RETURNED ORIGINAL TO POS 17 LISTED EVENTS LOGGED ON MONITOR - ADDED TO JOB CARD FILE.	9462 9342 712
13-1-25	Phil + CRAIG	P.Q.U. 500 HR SERVICE. COMPLETED AS PER MAINT. GUIDE	9480

AS415

DATE	FITTERS NAME	WORK DETAILS	
13-1-25	Phil + CRAIG	8 OIL SAMPLES TAKEN. INSPECT FOR REPORTED NOISE R/H REAR, FOUND BOTH SUSP. BLOCKS - CENTRE AXLE, RUBBER BROKEN. PARTS ORDERED. P/BRAKE FAULT ATTEMPT TO INITIATE DELAYED APPLICATION, DIDN'T FAULT. INSPECT P/BRAKE VALVE SPACE + SEALS NOTHING VISUAL FOUND. VALVE ORDERED. COMM FAULT. STOPPING MACHINE START. LISTED MONITOR MESSAGES - REPORTED TO DARREN - CONTACTED ETO FOR TECH ASSIST. Dump BODY - FRONT CUSHES EXCESSIVE CLEARANCE. ADD SHIMS TO R/H.	9480
16-1-25	CRAIG + PHIL	Replaced worn and torn rear bogie suspension rubber blocks x3 LHS front, RHS front and rear. Replaced instructors seat belt due to age. Fitted a new park brake control valve 17489661 to the trailer brake manifold due to the problems with park brake applying slowly. Re calibrate scales due to error showing as red light. Rubber suspension blocks were non genuine.	9481 B42771 B42772
24-1-25	C.J.D (JIM)	Machine was checked for ongoing ECU COMMUNICATION FAULTS and transmission faults, and at times no start faults. The HMI/ECU software was thought to be damaged/corrupted or such caused by switching of the "emergency powercut" switch. New software is to be installed before further checks can be done. The load scales were not working, Jim checked the system with the laptop, all appears ok except that the sensors think that the truck is overloaded. Possible cause is incorrect rubber suspension blocks.	9492 B42775
24-1-25	CRAIG	Replaced RHS tail gate pivot adapters for grease base because they were loose and could not be tightened. Fittings from stock	9492
7-2-25	CRAIG + PHIL	Changed the 16879755 RUBBER SPRINGS at the load cell corners replacing the NON GEN rubbers with genuine VOLVO rubbers. The NON GEN rubbers, gave a reading of 67 TONS with the truck empty. NEXT PAGE	9495 B42772

DATE	FITTERS NAME	WORK DETAILS	
2-25	CRAIG + PHIL	The genuine parts had a "raised" centre hub on the top centre peg to support the centre of the load cell. NON GEN parts the centre hub was below the top plate of the spring. Old rubber springs were retained for use on the non load cell corners.	9495 h
3-25	CJD Richard.	Went out to PQV and Carry out a <u>Transmission Calibration + Software Package Upgrade.</u>	B43083 9547 HRS
4-25	CJD Jim	Went out to PQV and try to Fault the EUC, All 3 Fault Codes that were logged were after the 14-3-25 when CJD Update the Software. Jim Couldn't get the machine to Fault while he was there, If it happen's again Jim wants to try and Disconnect the E-Steer Switch at the L/R Wheel Arch to See if the Switch is Faulty.	B42978
6-4-25	PHIL	P.Q.V. <u>REV. CAMERA</u> SCREEN REPORTED, PATCHY. INSPECTED SCREEN + CAMERA. NO FAULT FOUND. <u>OPERATOR SEAT</u> - NOISE REPORTED, FOUND CLEARANCE + NOISE FROM SEAT RISER FRONT SLIDES, LUBRICATED, NO CHANGE - FURTHER ACTION REQ'D.	9,564 HRS 9587
24-9-25	CRAIG	Replace <u>faulty sealant</u> between windows LH and RH front joint to centre window. Apply power switch decal to boot box, stating do not switch OFF	9,691 h.
5-12-25	CRAIG	Operator reported fluid leakage on belly guard, found the <u>fuel tank breather wet</u> , possibly caused by a full fuel tank on a hot day, inspected above belly guard for engine, no bad leaks found.	9,733 h.
9-1-26	CRAIG	Operator reported the <u>BODY UP WARNING</u> was not going off some times. Reset body angle sensor with dash panel. Operator to report further problems	9,750.
3-1-26	CRAIG	Check <u>BODY ANGLE SENSOR</u> jump harness for damage, corrosion and resistance, all looked ok. Replaced and calibrate the 17261408 angle sensor because the body up warning was not going off intermittently.	9,760 B44076

