

CERTIFICATE OF ANALYSIS

SAMPLE NAME		Patchouli oil	
FORM		Oil	
CUSTOMER NAME		Buckley & Phillips Aromatics	
CERTIFICATION DATE		22 March 2019	
CUSTOMER REFERENCE		18478	
ARL JOB #	A190548	LAB REF. #	ARL1901306
ANALYSIS	GCFID - Area%	METHOD	ARL-TM101-3

TEST	ISO 3757** SPECIFICATION	RESULTS	TEST METHOD
	Area %		
α -copaene	trace - 1.0	0.12	ARL-TM101-3*
β -patchoulene	1.8 - 3.5	2.77	
β -caryophyllene	2.0 - 5.0	3.3	
α -guaiene	11.0 - 16.0	13.96	
bulnesene	13.0 - 21.0	17.31	
nor-patchoulenol	0.35 - 1.0	0.36	
pogostol	1.0 - 2.5	0.76	
patchoulol	27.0 - 35.0	28.82	

* Assay by GC (FID detection –area percent report)

**ISO 3757 - Oil of patchouli (Pogostemon cablin (Blanco) Benth.)



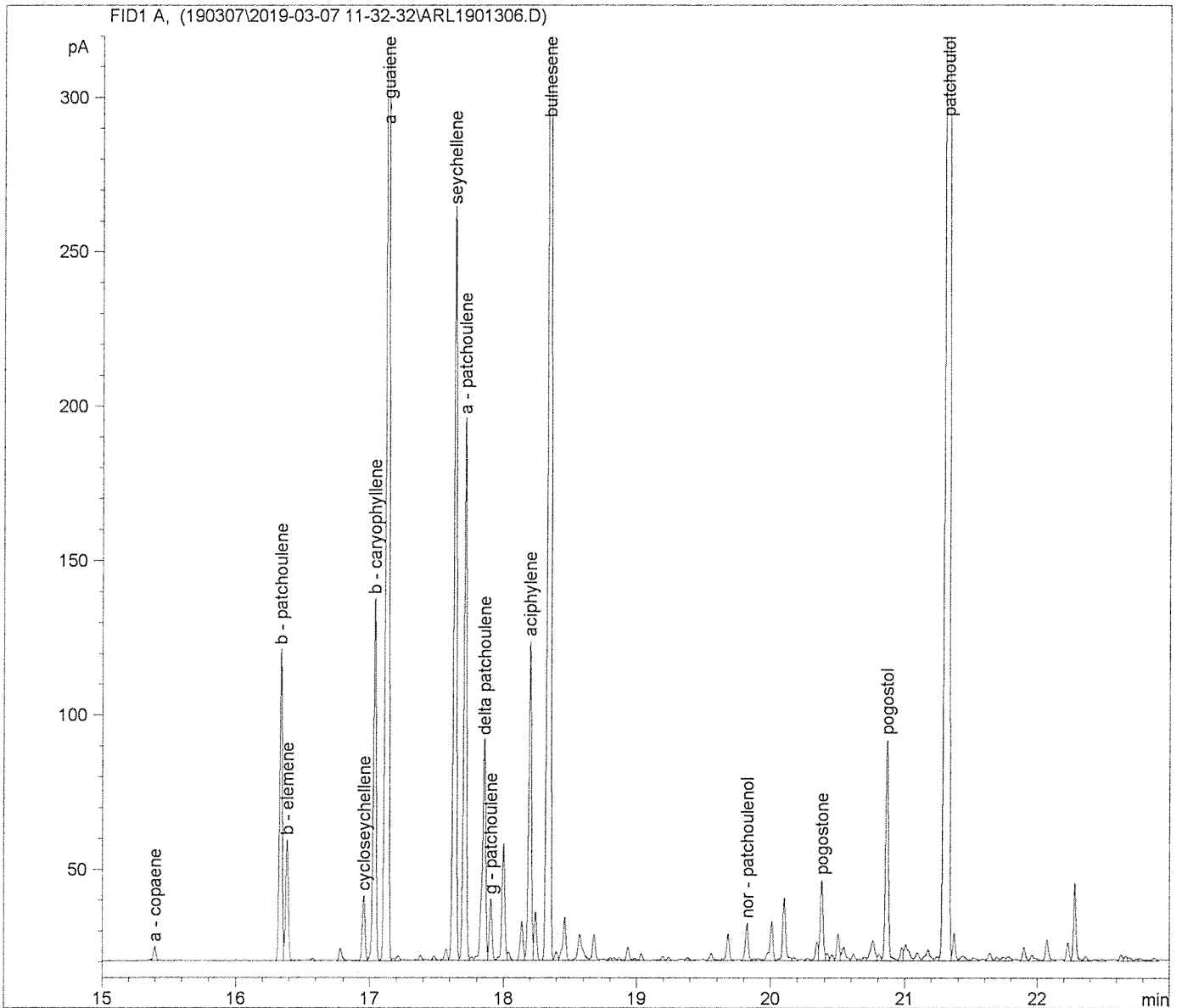
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Samantha Morrow
ANALYTICAL OFFICER



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Ashley Dowell
MANAGER - ARL

Sample Name: Patchouli Oil 18478

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Acq. Operator   : Jeanette Balindong          Seq. Line : 13
Acq. Instrument : GC-3                      Location  : Vial 20
Injection Date  : 3/7/2019 8:07:03 PM      Inj       : 1
                                           Inj Volume: 1 µl
Acq. Method    : C:\DATA\GC-3\DATA\190307\2019-03-07 11-32-32\PATCHOULI.M
Last changed   : 3/7/2019 2:45:02 PM by Jeanette Balindong
Analysis Method : C:\DATA\GC-3\METHODS\PATCHOULI.M
Last changed   : 3/18/2019 3:35:39 PM by Jeanette Balindong
                  (modified after loading)
Method Info    : Method to analyse essential oils
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YJB
10/3/19

Sample Name: Patchouli Oil 18478

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 Area Percent Report
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Sorted By : Signal
 Calib. Data Modified : 3/18/2019 3:24:52 PM
 Multiplier: : 1.0000
 Dilution: : 1.0000
 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	15.396	VV	0.0213	6.14824	0.12008	a - copaene
2	16.336	VV	0.0219	142.05774	2.77440	b - patchoulene
3	16.383	VB	0.0219	54.96120	1.07340	b - elemene
4	16.956	BV	0.0231	30.87911	0.60307	cycloseychellene
5	17.034	VV	0.0233	168.90353	3.29870	b - caryophyllene
6	17.129	VV	0.0235	715.04022	13.96478	a - guaiene
7	17.633	VV	0.0240	365.93692	7.14677	seychellene
8	17.709	VV	0.0223	252.51265	4.93159	a - patchoulene
9	17.854	VV	0.0261	126.11740	2.46308	delta patchoulene
10	17.903	VV	0.0223	27.82171	0.54336	g - patchoulene
11	18.197	VV	0.0224	150.24458	2.93429	aciphylene
12	18.343	VV	0.0231	886.36609	17.31078	bulnesene
13	19.823	VV	0.0234	18.59331	0.36313	nor - patchoulenol
14	20.379	VV	0.0223	39.02976	0.76225	pogostone
15	20.865	VV	0.0239	106.55627	2.08105	pogostol
16	21.321	VV	0.0271	1475.88684	28.82416	patchoulol

Totals : 4567.05559 89.1949

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 *** End of Report ***

gls
19/3/19