

(A Unit of KOS Healthcare)



Dr. Vinay Chopra MD (Pathology & Microbiology) Chairman & Consultant Pathologist Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Miss. HARSHDEEP KAUR

AGE/ GENDER : 27 YRS/FEMALE PATIENT ID : 1659495

COLLECTED BY : REG. NO./LAB NO. : 012411030043

 REFERRED BY
 : 03/Nov/2024 12:33 PM

 BARCODE NO.
 : 01519993
 COLLECTION DATE
 : 03/Nov/2024 12:38 PM

 CLIENT CODE.
 : KOS DIAGNOSTIC LAB
 REPORTING DATE
 : 03/Nov/2024 01:33 PM

CLIENT ADDRESS: 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name Value Unit Biological Reference interval

HAEMATOLOGY COMPLETE BLOOD COUNT (CBC)

RED BLOOD CELLS (RBCS) COUNT AND INDICES

HAEMOGLOBIN (HB)	9.5 ^L	gm/dL	12.0 - 16.0
RED BLOOD CELL (RBC) COUNT by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	5.26 ^H	Millions/cmm	3.50 - 5.00
PACKED CELL VOLUME (PCV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	32.1 ^L	%	37.0 - 50.0
MEAN CORPUSCULAR VOLUME (MCV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	61.1 ^L	fL	80.0 - 100.0
MEAN CORPUSCULAR HAEMOGLOBIN (MCH) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	18.1 ^L	pg	27.0 - 34.0
MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	29.6 ^L	g/dL	32.0 - 36.0
RED CELL DISTRIBUTION WIDTH (RDW-CV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	27.9 ^H	%	11.00 - 16.00
RED CELL DISTRIBUTION WIDTH (RDW-SD) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	63.9 ^H	fL	35.0 - 56.0
MENTZERS INDEX by CALCULATED	11.62	RATIO	BETA THALASSEMIA TRAIT: < 13.0 IRON DEFICIENCY ANEMIA: >13.0
GREEN & KING INDEX by CALCULATED	32.48	RATIO	BETA THALASSEMIA TRAIT:<= 65.0 IRON DEFICIENCY ANEMIA: > 65.0
WHITE BLOOD CELLS (WBCS)			
TOTAL LEUCOCYTE COUNT (TLC) by Flow cytometry by SF cube & microscopy	7750	/cmm	4000 - 11000
NUCLEATED RED BLOOD CELLS (nRBCS) by automated 6 part hematology analyzer	NIL		0.00 - 20.00
NUCLEATED RED BLOOD CELLS (nRBCS) %	NIL	%	< 10 %



DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS MD (PATHOLOGY)



by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER



(A Unit of KOS Healthcare)



Dr. Vinay Chopra MD (Pathology & Microbiology) Chairman & Consultant Pathologist Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Miss. HARSHDEEP KAUR

AGE/ GENDER : 27 YRS/FEMALE **PATIENT ID** : 1659495

COLLECTED BY : REG. NO./LAB NO. : 012411030043

 REFERRED BY
 : 03/Nov/2024 12:33 PM

 BARCODE NO.
 : 01519993
 COLLECTION DATE
 : 03/Nov/2024 12:38 PM

 CLIENT CODE.
 : KOS DIAGNOSTIC LAB
 REPORTING DATE
 : 03/Nov/2024 01:33 PM

CLIENT ADDRESS: 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name	Value	Unit	Biological Reference interval
DIFFERENTIAL LEUCOCYTE COUNT (DLC)			
NEUTROPHILS by flow cytometry by sf cube & microscopy	65	%	50 - 70
LYMPHOCYTES by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	28	%	20 - 40
EOSINOPHILS by flow cytometry by sf cube & microscopy	2	%	1 - 6
MONOCYTES by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	5	%	2 - 12
BASOPHILS by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	0	%	0 - 1
ABSOLUTE LEUKOCYTES (WBC) COUNT			
ABSOLUTE NEUTROPHIL COUNT by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	5038	/cmm	2000 - 7500
ABSOLUTE LYMPHOCYTE COUNT by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	2170	/cmm	800 - 4900
ABSOLUTE EOSINOPHIL COUNT by flow cytometry by SF cube & microscopy	155	/cmm	40 - 440
ABSOLUTE MONOCYTE COUNT by flow cytometry by Sf cube & microscopy	388	/cmm	80 - 880
PLATELETS AND OTHER PLATELET PREDICTIVE	MARKERS.		
PLATELET COUNT (PLT) by hydro dynamic focusing, electrical impedence	235000	/cmm	150000 - 450000
PLATELETCRIT (PCT) by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	0.27	%	0.10 - 0.36
MEAN PLATELET VOLUME (MPV) by hydro dynamic focusing, electrical impedence	11	fL	6.50 - 12.0
PLATELET LARGE CELL COUNT (P-LCC) by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	107000 ^H	/cmm	30000 - 90000
PLATELET LARGE CELL RATIO (P-LCR) by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	45.6 ^H	%	11.0 - 45.0
PLATELET DISTRIBUTION WIDTH (PDW) by hydro dynamic focusing, electrical impedence NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD	14.4 ^L	%	15.0 - 17.0



DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA CONSULTANT PATHOLOGIST MBBS , MD (PATHOLOGY)



KOS Central Lab: 6349/1, Nicholson Road, Ambala Cantt -133 001, Haryana KOS Molecular Lab: IInd Floor, Parry Hotel, Staff Road, Opp. GPO, Ambala Cantt -133 001, Haryana



(A Unit of KOS Healthcare)



Dr. Vinay Chopra
MD (Pathology & Microbiology)
Chairman & Consultant Pathologist

Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Miss. HARSHDEEP KAUR

AGE/ GENDER : 27 YRS/FEMALE PATIENT ID : 1659495

COLLECTED BY : REG. NO./LAB NO. : 012411030043

 REFERRED BY
 : 03/Nov/2024 12:33 PM

 BARCODE NO.
 : 01519993
 COLLECTION DATE
 : 03/Nov/2024 12:38 PM

 CLIENT CODE.
 : KOS DIAGNOSTIC LAB
 REPORTING DATE
 : 04/Nov/2024 10:09 AM

CLIENT ADDRESS: 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name Value Unit Biological Reference interval

HAEMOGLOBIN - HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HB-HPLC)

HAEMOGLOBIN VARIANTS

HAEMOGLOBIN AO (ADULT) by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	83.9	%	83.00 - 90.00
HAEMOGLOBIN F (FOETAL) by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	<0.8	%	0.00 - 2.0
HAEMOGLOBIN A2 by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	3.8 ^H	%	1.50 - 3.70
PEAK 3 by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	5.1	%	< 10.0
OTHERS-NON SPECIFIC by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	ABSENT	%	ABSENT
HAEMOGLOBIN S by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	NOT DETECTED	%	< 0.02
HAEMOGLOBIN D (PUNJAB) by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	NOT DETECTED	%	< 0.02
HAEMOGLOBIN E by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	NOT DETECTED	%	< 0.02
HAEMOGLOBIN C by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	NOT DETECTED	%	< 0.02
UNKNOWN UNIDENTIFIED VARIANTS by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	NOT DETECTED	%	< 0.02
GLYCOSYLATED HAEMOGLOBIN (HbA1c): WHOLE BLOOD by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	5.2	%	4.0 - 6.4
RED BLOOD CELLS (RBCS) COUNT AND INDICES			
HAEMOGLOBIN (HB) by automated hematology analyzer	9.5 ^L	gm/dL	12.0 - 16.0
RED BLOOD CELL (RBC) COUNT by AUTOMATED HEMATOLOGY ANALYZER	5.26 ^H	Millions/cmm	3.50 - 5.00
PACKED CELL VOLUME (PCV) by AUTOMATED HEMATOLOGY ANALYZER	32.1 ^L	%	37.0 - 50.0
MEAN CORPUSCULAR VOLUME (MCV) by AUTOMATED HEMATOLOGY ANALYZER	61.1 ^L	fL	80.0 - 100.0

18.1^L



DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)



KOS Central Lab: 6349/1, Nicholson Road, Ambala Cantt -133 001, Haryana KOS Molecular Lab: IInd Floor, Parry Hotel, Staff Road, Opp. GPO, Ambala Cantt -133 001, Haryana

27.0 - 34.0

MEAN CORPUSCULAR HAEMOGLOBIN (MCH)

by AUTOMATED HEMATOLOGY ANALYZER



(A Unit of KOS Healthcare)



Dr. Vinay Chopra
MD (Pathology & Microbiology)
Chairman & Consultant Pathologist

Dr. Yugam Chopra
MD (Pathology)
CEO & Consultant Pathologist

NAME : Miss. HARSHDEEP KAUR

AGE/ GENDER : 27 YRS/FEMALE PATIENT ID : 1659495

COLLECTED BY : REG. NO./LAB NO. : 012411030043

 REFERRED BY
 : 03/Nov/2024 12:33 PM

 BARCODE NO.
 : 01519993
 COLLECTION DATE
 : 03/Nov/2024 12:38 PM

 CLIENT CODE.
 : KOS DIAGNOSTIC LAB
 REPORTING DATE
 : 04/Nov/2024 10:09 AM

CLIENT ADDRESS: 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name	Value	Unit	Biological Reference interval
MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC) by AUTOMATED HEMATOLOGY ANALYZER	29.6 ^L	g/dL	32.0 - 36.0
RED CELL DISTRIBUTION WIDTH (RDW-CV) by automated hematology analyzer	27.9 ^H	%	11.00 - 16.00
RED CELL DISTRIBUTION WIDTH (RDW-SD) by automated hematology analyzer	63.9 ^H	fL	35.0 - 56.0
<u>OTHERS</u>			
MENTZERS INDEX by CALCULATED	11.62	RATIO	BETA THALASSEMIA TRAIT: < 13.0 IRON DEFICIENCY ANEMIA: >13.0

INTERPRETATION

HB VARIANT ANALYSIS- Suggestive of Beta thalassemia trait. Parental screening &/or DNA analysis is advised.

INTERPRETATION:

The Thalassemia syndromes, considered the most common genetic disorder worldwide, are a heterogenous group of mandelian disorders, all characterized by a lack of/or decreased synthesis of either the alpha-globin chains (alpha thalassemia) or the beta-globin chains (beta thalassemia) of haemoglobin.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC):

- 1.HAEMOGLOBIN VARIANT ANALYSIS, BLOOD- High Performance liquid chromatography (HPLC) is a fast & accurate method for determining the presence and for quatitation of various types of normal haemoglobin and common abnormal hb variants, including but not limited to Hb S, C, E, D and Beta –thalassemia.
- 2. The diagnosis of these abnormal haemoglobin should be confirmed by DNA analysis.
- 3. The method use has a limited role in the diagnosis of alpha thalassemia.
- 4.Slight elevation in haemoglobin A2 may also occur in hyperthyroidism or when there is deficiency of vitamin b12 or folate and this should be istinguished from inherited elevation of HbA2 in Beta- thalassemia trait.

NAKED EYE SINGLE TUBE RED CELL OSMOTIC FRAGILITY TEST (NESTROFT):

- 1.It is a screening test to distinguish beta thalassemia trait. Also called as Naked Eye Single Tube Red Cell Osmotic Fragility Test.
- 2. The test showed a sensitivity of 100%, specificity of 85.47%, a positive predictive value of 66% and a negative predictive value of 100%.
- 3.A high negative predictive value can reasonably rule out beta thalassemia trait cases. So, it should be adopted as a screening test for beta thalassemia trait, as it is not practical or feasible to employ HbA2 in every case of anemia in childhood.

MENTZERS INDEX:

- 1. The Mentzer index, helpful in differentiating iron deficiency anemia from beta thalassemia. If a CBC indicates microcytic anemia, the Mentzer index is said to be a method of distinguishing between them.
- 2. If the index is less than 13, thalassemia is said to be more likely. If the result is greater than 13, then iron-deficiency anemia is said to be more likely.
- 3.The principle involved is as follows: In iron deficiency, the marrow cannot produce as many RBCs and they are small (microcytic), so the RBC count and the MCV will both be low, and as a result, the index will be greater than 13. Conversely, in thalassemia, which is a disorder of globin synthesis, the number of RBC's produced is normal, but the cells are smaller and more fragile. Therefore, the RBC count is normal, but the MCV is low, so the index will be less than 13.



DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUĞAM CHOPRA CONSULTANT PATHOLOGIST MBBS , MD (PATHOLOGY)

KOS Central Lab: 6349/1, Nicholson Road, Ambala Cantt -133 001, Haryana



(A Unit of KOS Healthcare)



Dr. Vinay Chopra
MD (Pathology & Microbiology)
Chairman & Consultant Pathologist

Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Miss. HARSHDEEP KAUR

AGE/ GENDER : 27 YRS/FEMALE PATIENT ID : 1659495

COLLECTED BY : REG. NO./LAB NO. : 012411030043

 REFERRED BY
 : 03/Nov/2024 12:33 PM

 BARCODE NO.
 : 01519993
 COLLECTION DATE
 : 03/Nov/2024 12:38 PM

 CLIENT CODE.
 : KOS DIAGNOSTIC LAB
 REPORTING DATE
 : 04/Nov/2024 10:09 AM

CLIENT ADDRESS: 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name Value Unit Biological Reference interval

NOTE: In practice, the Mentzer index is not a reliable indicator and should not, by itself, be used to differentiate. In addition, it would be possible for a patient with a microcytic anemia to have both iron deficiency and thalassemia, in which case the index would only suggest iron deficiency.



DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA CONSULTANT PATHOLOGIST MBBS , MD (PATHOLOGY)



KOS Central Lab: 6349/1, Nicholson Road, Ambala Cantt -133 001, Haryana
KOS Molecular Lab: IInd Floor, Parry Hotel, Staff Road, Opp. GPO, Ambala Cantt -133 001, Haryana
0171-2643898, +91 99910 43898 | care@koshealthcare.com | www.koshealthcare.com



(A Unit of KOS Healthcare)



Dr. Vinay Chopra MD (Pathology & Microbiology) Chairman & Consultant Pathologist

Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Miss. HARSHDEEP KAUR

AGE/ GENDER : 27 YRS/FEMALE **PATIENT ID** : 1659495

COLLECTED BY :012411030043 REG. NO./LAB NO.

REFERRED BY **REGISTRATION DATE** : 03/Nov/2024 12:33 PM BARCODE NO. :01519993 **COLLECTION DATE** : 03/Nov/2024 12:38PM CLIENT CODE. : KOS DIAGNOSTIC LAB REPORTING DATE : 03/Nov/2024 02:37PM

CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

Test Name Value Unit **Biological Reference interval**

CLINICAL CHEMISTRY/BIOCHEMISTRY **IRON PROFILE**

IRON: SERUM by FERROZINE, SPECTROPHOTOMETRY	35.1 ^L	μg/dL	37.0 - 145.0
UNSATURATED IRON BINDING CAPACITY (UIBC) :SERUM by FERROZINE, SPECTROPHOTOMETERY	288.03	μg/dL	150.0 - 336.0
TOTAL IRON BINDING CAPACITY (TIBC) :SERUM by SPECTROPHOTOMETERY	323.13	μg/dL	230 - 430
%TRANSFERRIN SATURATION: SERUM by CALCULATED, SPECTROPHOTOMETERY (FERENE)	10.86 ^L	%	15.0 - 50.0
TRANSFERRIN: SERUM by SPECTROPHOTOMETERY (FERENE)	229.42	mg/dL	200.0 - 350.0

INTERPRETATION:-

IRON:

VARIABLES	ANEMIA OF CHRONIC DISEASE	IRON DEFICIENCY ANEMIA	THALASSEMIA α/β TRAIT
SERUM IRON:	Normal to Reduced	Reduced	Normal
TOTAL IRON BINDING CAPACITY:	Decreased	Increased	Normal
% TRANSFERRIN SATURATION:	Decreased	Decreased < 12-15 %	Normal
SERUM FERRITIN:	Normal to Increased	Decreased	Normal or Increased

- 1. Serum iron studies is recommended for differential diagnosis of microcytic hypochromic anemia. i.e iron deficiency anemia, zinc deficiency anemia, anemia of chronic disease and thalassemia syndromes.
- 2. It is essential to isolate iron deficiency anemia from Beta thalassemia syndromes because during iron replacement which is therapeutic for iron deficiency anemia, is severely contra-indicated in Thalassemia. TOTAL IRON BINDING CAPACITY (TIBC):

1.It is a direct measure of protein transferrin which transports iron from the gut to storage sites in the bone marrow.

% TRANSFERRIN SATURATION:

1.Occurs in idiopathic hemochromatosis and transfusional hemosiderosis where no unsaturated iron binding capacity is available for iron mobilization. Similar condition is seen in congenital deficiency of transferrin.



CONSULTANT PATHOLOGIST MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA CONSULTANT PATHOLOGIST





(A Unit of KOS Healthcare)



Dr. Vinay Chopra MD (Pathology & Microbiology) Chairman & Consultant Pathologist

Dr. Yugam Chopra MD (Pathology) CEO & Consultant Pathologist

NAME : Miss. HARSHDEEP KAUR

AGE/ GENDER : 27 YRS/FEMALE **PATIENT ID** : 1659495

COLLECTED BY REG. NO./LAB NO. :012411030043

REFERRED BY **REGISTRATION DATE** : 03/Nov/2024 12:33 PM BARCODE NO. :01519993 **COLLECTION DATE** : 03/Nov/2024 12:38PM CLIENT CODE. : KOS DIAGNOSTIC LAB REPORTING DATE : 03/Nov/2024 02:37PM

CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

Value Unit **Biological Reference interval Test Name**

VITAMINS VITAMIN B9/FOLIC ACID/FOLATE

VITAMIN B9/FOLIC ACID/FOLATE: SERUM 3.7

by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)

DEFICIENT: < 3.37 ng/mL

INTERMEDIATE: 3.37 - 5.38

NORMAL: > 5.38

INTERPRETATION

RESULT IN ng/mL	REMARKS	
0.35 – 3.37	DEFICIENT	
3.38 – 5.38	INTERMEDIATE	
5.39 – 100.00	NORMAL	

NOTE:

- 1. Drugs like Methotrexate & Leucovorin interfere with folate measurement
- 2. To differentiate vitamin B12 & folate deficiency, measurement of Methyl malonic acid in urine & serum Homocysteine level is suggested 3. Risk of toxicity from folic acid is low as it is a water soluble vitamin regularly excreted in urine
- 1. Folate plays an important role in the synthesis of purine & pyrimidines in the body and is important for the maturation of erythrocytes.
 2. It is widely available from plants and to a lesser extent organ meats, but more than half the folate content of food is lost during cooking.
 3. Folate deficiency is commonly prevalent in alcoholic liver disease, pregnancy and the elderly. It may result from poor intestinal absorption, nutrition deficiency, excessive demand as in pregnancy or in malignancy and in response to certain drugs like Methotrexate & anticonvulsants.

 4. Decreased Levels Megaloblastic anemia, Infantile hyperthyroidism, Alcoholism, Malnutrition, Scurvy, Liver disease, B12 deficiency, dietary amino acid excess, adult Celiac disease, Tropical Sprue, Crohn's disease, Hemolytic anemias, Carcinomas, Myelofibrosis, vitamin Bó deficiency, pregnancy, Whipple's disease, extensive intestinal resection and severe exfoliative dermatitis

*** End Of Report ***



CONSULTANT PATHOLOGIST MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA CONSULTANT PATHOLOGIST



Patient report

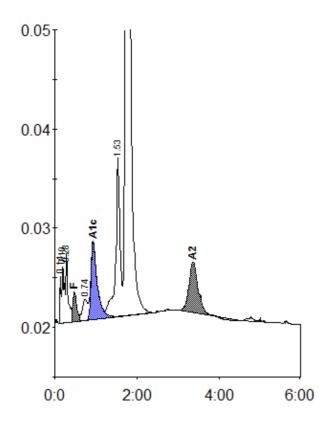
 Bio-Rad
 DATE: 11/03/2024

 D-10
 TIME: 07:10 PM

S/N: #DJ6F040603 Software version: 4.30-2

Sample ID: 01519993

Injection date 11/03/2024 07:09 PM
Injection #: 7 Method: HbA2/F
Rack #: --- Rack position: 7



Peak table - ID: 01519993

Peak	R.time	Height	Area	Area %
Unknown	0.14	4800	8616	0.4
A1a	0.19	5733	23666	1.0
A1b	0.28	6954	24615	1.0
F	0.48	2943	19959	< 0.8 *
LA1c/CHb-1	0.74	2121	18143	0.8
A1c	0.93	7706	83196	5.2
P3	1.53	16104	119640	5.1
A0	1.73	444174	1966679	83.9
A2	3.36	5133	80708	3.8
Total Area:	2345221			

Concentration:	%
F	< 0.8 *
A1c	5.2
A2	3.8