

## COMPLETE BLOOD COUNT (CBC with E.S.R).

**Reference No.** : 21015054 **Age/Sex** : 46 Years FEMALE **Reg. Date** : 1/22/2021 10:01  
**Patient** : MS. MANDIRA SHOREY **Delivery** : EMAIL **Collected** : 22/01/2021 10:01  
**Ref. Doctor** : M M PAITHANKAR **Sample Type** : Blood **Received** :  
**Hospital/NH** : **Reported** : 22/01/2021 10:47  
**Print Date** : 22/01/2021 17:21

Investigation	Result	Biological Reference Interval	Units
HEMOGLOBIN, Blood(SLS Hemoglobin)	11.4	12.00 - 15.00	g/dl
PACKED CELL VOLUME, Blood(Impedence)	36.5	36 - 46	%
TLC, Blood (Flow cytometry)	4590.00	4000 - 11000	/cumm
<b><u>D.L.C., Blood (Flow Cytometry)</u></b>			
POLYMORPHS	64.0	44.00 - 68.00	%
LYMPHOCYTES	28.00	25.00 - 44.00	%
EOSINOPHILS	1.0	0.00 - 4.00	%
MONOCYTES	7.00	0.00 - 7.00	%
ABSOLUTE NEUTROPHIL COUNT(Blood, Calculated).	2937.60	2000 - 7000	/Cu mm
ABSOLUTE LYMPHOCYTE COUNT(Blood, Calculated).	1285.20	1000 - 3000	/Cu mm
ABSOLUTE EOSINOPHIL COUNT BLOOD, (Calculated)	45.90	20 - 500	/Cu mm
PLATELET COUNT, Blood (Impedence)	325.00	150 - 410	1000/Cumm
E.S.R, Blood(Capillary Photometry)	21.00	0.00 - 20.00	1st hour
R B C COUNT, Blood (Impedence)	4.44	3.8 - 4.8	10 <sup>12</sup> /L
MCV, Blood(Calculated)	82.21	83 - 101	fl
MCH, Blood(Calculated)	25.68	27.00 - 32.60	Pg
MCHC, Blood(Calculated)	31.23	31.50 - 34.50	gm/dl
RDW, Blood (Calculated)	14.3	11.6 - 14.0	%

COMMENTS ON PERIPHERAL SMEAR : The red blood cells show hypochromia, anisocytosis & microcytosis.  
 (Microscopy, Leishman stain) The white cells are normal. The platelets are adequate.

\*Test performed by SYSMEX XN-550.

Absolute Neutrophil Count (ANC) <1000 - Markedly increased susceptibility of infectious diseases.

- Absolute Neutrophil Count (ANC) <500 control of endogenous microbial flora impaired.

- Absolute Neutrophil Count (ANC) <200 absent inflammatory processes.

Comments:

\*\*\* END OF REPORT \*\*\*

Yamini

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Page 1 of 14

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## REPORT

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**Patient** : MS. MANDIRA SHOREY **Delivery** : EMAIL **Collected** : 22/01/2021 10:01  
**Sample Type** : FLUORIDE PLASMA **Received** :  
**Ref. Doctor** : M M PAITHANKAR **Reported** : 22/01/2021 11:14  
**Hospital/NH** : **Print Date** : 22/01/2021 17:21

<u>Investigation</u>	<u>Result</u>	<u>Biological</u> <u>Reference Interval</u>	<u>Units</u>
FASTING GLUCOSE, Plasma(Hexokinase)	98.90	60 - 100	mg/dl
Comments: BLOOD GLUCOSE PP,Plasma,(Hexokinase)	120.3	60.00 - 140.00	mg/dl

Post 75 gms oral glucose : <140 = Normal, 140- 199 = Impaired glucose tolerance, 200 or more = Diabetes.

Conditions in which the post prandial sugar is less than the fasting sugar:

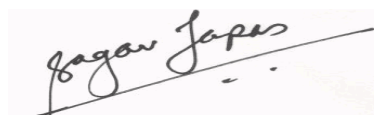
1). Excessive increase in insulin. (2). Rapid gastric emptying. (3). Brisk glucose absorption.

The probable causes are :

1). Early type II diabetes. (2). Drugs like Salicylates, Beta Blockers, Pentamidine, Alcohol etc.(3). Foods with higher glycaemic index (4). Exercise in between samples. (5). Family history of diabetes. (6). Partial or total gastrectomy.

Comments:

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## HbA1c

<b>Reference No.</b> : 21015054	<b>Age/Sex</b> : 46 Years FEMALE	<b>Reg. Date</b> : 1/22/2021 10:01
<b>Patient</b> : MS. MANDIRA SHOREY	<b>Delivery</b> : EMAIL	<b>Collected</b> : 22/01/2021 10:01
	<b>Sample Type</b> : Blood	<b>Received</b> :
<b>Ref. Doctor</b> : M M PAITHANKAR		<b>Reported</b> : 22/01/2021 11:53
<b>Hospital/NH</b> :		<b>Print Date</b> : 22/01/2021 17:21

<u>Investigation</u>	<u>Result</u>	<u>Units</u>
GLYCOSYLATED HEMOGLOBIN (HbA1c)	5.5	%
Immunoturbidimetry		

### REFERENCE RANGE:

4.00 - 5.60 % Normal  
 5.70 - 6.40 % Prediabetes (The values should be co-related with Glucose levels)  
 6.10 - 7.00 % HbA1C indicates very good control in diabetes  
 7.10 - 8.00 % HbA1C indicates adequate control in diabetes  
 8.10 - 9.00 % HbA1C indicates suboptimal control in diabetes  
 >9.00% HbA1C indicates poor control in diabetes

HbA1c (%) Average Glucose mg/dl

5	97
6	126
7	154
8	183
9	212
10	240
11	269
12	298

### Note :

An estimated average glucose (eAG) can be calculated from the HbA1c values. The A1c test is also used to monitor the glucose control of diabetics over time. This helps to minimize the complications caused by chronically elevated glucose levels, such as progressive damage to kidneys, eyes, cardiovascular system, and nerves.

The A1c test, however, should not be used for screening for cystic fibrosis-related diabetes, people who have had recent severe bleeding or blood transfusions, those with chronic kidney or liver disease, or people with blood disorders such as iron-deficiency anemia, vitamin B12 deficiency anemia, and some Hemoglobin variants (e.g., patients with sickle cell disease or Thalassemia).

### Comments:

\*\*\* END OF REPORT \*\*\*



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Page 3 of 14



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Investigation	Result	Biological Reference Interval	Units
CRP-HS, Serum(Immunoturbidimetry)	1.32	0.00 - 1.00	mg/L

### CVD Risk Assessment

Low : 0.00 - 1.00 mg/L  
 Average : 1.00 - 3.00 mg/L  
 High : More Than 3.00 mg/L

### Reference Range For :-

Neonates 0.10 - 4.10 mg/L  
 Children 0.10 - 2.80 mg/L

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## LIPID PROFILE

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**Patient** : MS. MANDIRA SHOREY **Delivery** : EMAIL **Collected** : 22/01/2021 10:01  
**Ref. Doctor** : M M PAITHANKAR **Sample Type** : SERUM **Received** :  
**Hospital/NH** : **Reported** : 22/01/2021 11:37  
**Print Date** : 22/01/2021 17:21

Investigation	Result	Biological Reference Interval	Units
CHOLESTROL, SERUM (Enz. Colorimetry)	206.2	80.00 - 200.00	mg/dl
HDL CHOLESTEROL (Enz.Colorimetry)	65.60	40.00 - 70.00	mg/dl
TRIGLYCERIDES, SERUM (Enz.Colorimetry)	60.08	40.00 - 150.00	mg/dl
VLDL CHOLESTEROL (Calculated)	12.02	24.00 - 45.00	mg/dl
LDL CHOLESTEROL (Enz.Colorimetry)	128.58	30.00 - 100.00	mg/dl
LDL / HDL RATIO (Calculated)	1.96	0.00 - 3.00	
CHOLESTEROL / HDL RATIO(Calculated)	3.14	0.00 - 4.00	

### INTERPRETATION :-

Desirable : Less than 200 mg/dl  
 Borderline High Risk : 200 to 239 mg/dl  
 High Risk : 240 mg/dl and over, on repeated values  
 Optimal Level for Cardiac Patients : Less than 200 mg/dl

### TRIGLYCERIDES REFERENCE RANGE

> Normal - Less than 150 mg/dL,  
 > Borderline high - 150 to 199 mg/dL  
 > High - 200 to 499 mg/dL  
 > Very high - 500 mg/dL or above

HDL-C : High HDL has generally been found to be protective, decreasing the risk of coronary Artery disease (CAD) in most people. However, some recent studies have shown that in some people with high HDL, the HDL is not protective and may, in fact result in higher risk for CAD than in people with normal HDL levels. In one study it was shown that people with CAD and high HDL had underlying genetic anomalies in enzymes important in lipid turnover. Another study showed that high levels of abnormally large HDL particles were associated with increased risk of CAD. Factors that elevate HDL concentrations include chronic alcoholism, treatment with oral estrogen replacement therapy, extensive aerobic exercise, and treatment with niacin, statins, or fibrates. Smoking reduces levels of HDL cholesterol, while quitting smoking leads to a rise in the plasma HDL level.

LDL Reference Range : Levels in terms of risk for coronary heart disease :

### Adult levels:

Optimal <100 mg/dL  
 Near Optimal/ above optimal 100 -129 mg/dL  
 Borderline high 130 - 159 mg/dL  
 High 160 - 189 mg/dL  
 Very High >=190 mg/dL

### Comments:



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## LIPID PROFILE

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	<b>Sample Type</b> : SERUM	<b>Received</b> :
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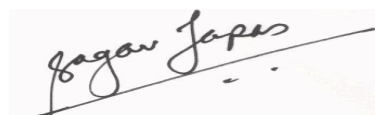
## L.F.T WITH G.G.T.P

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**Sample Type** : SERUM      **Received** :  
**Ref. Doctor** : M M PAITHANKAR      **Reported** : 22/01/2021      11:37  
**Hospital/NH** :      **Print Date** : 22/01/2021      17:21

Investigation	Result	Biological Reference Interval	Units
BILIRUBIN (TOTAL), Serum(Diazo)	0.47	0.00 - 1.20	mg/dl
BILIRUBIN (DIRECT), Serum(Diazo)	0.25	0 - 0.30	mg/dl
BILIRUBIN (INDIRECT), Serum(Calculated)	0.22	0.00 - 0.70	mg/dl
TOTAL PROTEINS Serum(Biuret)	7.3	6.40 - 8.30	gms/dl
ALBUMIN, Serum(BCG)	4.6	3.50 - 5.20	gms/dl
GLOBULIN (Calculated)	2.70	2.00 - 3.50	gms/dl
A:G RATIO (Calculated)	1.70	1.00 - 2.00	
ALKALINE PHOSPHATASE, Serum(Colorimetry)	70.5	35.00 - 105.00	U/L
SGOT, Serum(IFCC)	13.4	1.00 - 32.00	U/l
SGPT, Serum(IFCC)	9.6	2.00 - 33.00	U/l
GGTP, Serum(Enz.Colorimetry)	11	5.00 - 36.00	U/L

Comments:

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## KIDNEY FUNCTION TEST (KFT)

**Reference No.** : 21015054      **Age/Sex** : 46 Years      FEMALE      **Reg. Date** : 1/22/2021      10:01  
**Patient** : MS. MANDIRA SHOREY      **Delivery** : EMAIL      **Collected** : 22/01/2021      10:01  
**Ref. Doctor** : M M PAITHANKAR      **Sample Type** : SERUM      **Received** :  
**Hospital/NH** :      **Reported** : 22/01/2021      11:37  
**Print Date** : 22/01/2021      17:21

<u>Investigation</u>	<u>Result</u>	<u>Biological</u> <u>Reference Interval</u>	<u>Units</u>
UREA Serum(Urease)	17.73	12.00 - 45.00	mg/dl
UREA NITROGEN(Calculated)	8.29	6.00 - 20.00	mg/dl
CREATININE SERUM(Jaffe)	0.71	0.50 - 0.90	mg/dl
URIC ACID, Serum(Colorimetry)	4.2	2.40 - 5.70	mg/dl
CALCIUM, Serum(BAPTA)	9.15	8.60 - 10.00	mg/dl
PHOSPHATE, Serum(Phosphomolybdate)	3.1	2.50 - 4.80	mg/dl
SODIUM, Serum(ISE Indirect)	139.2	130.00 - 149.00	meq/L
POTASSIUM, Serum(ISE Indirect)	4.38	3.50 - 5.00	meq/L
CHLORIDE, Serum(ISE Indirect)	99.2	97.0 - 107.0	meq/L

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## FOLATE.

<b>Reference No.</b> : 21015054	<b>Age/Sex</b> : 46 Years FEMALE	<b>Reg. Date</b> : 1/22/2021 10:01
<b>Patient</b> : MS. MANDIRA SHOREY	<b>Delivery</b> : EMAIL	<b>Collected</b> : 22/01/2021 10:01
	<b>Sample Type</b> : Blood	<b>Received</b> :
<b>Ref. Doctor</b> : M M PAITHANKAR		<b>Reported</b> : 22/01/2021 14:55
<b>Hospital/NH</b> :		<b>Print Date</b> : 22/01/2021 17:21

<u>Investigation</u>	<u>Result</u>	<u>Biological</u> <u>Reference Interval</u>	<u>Units</u>
FOLATE, Serum,(CLIA)	12.5	4.80 - 37.30	ng/ml

### Summary and Explanation of the Test

Folates are compounds of pteroylglutamic acid (PGA) that function as coenzymes. Folate, with vitamin B12, is essential for DNA synthesis, which is required for normal red blood cell maturation. Humans obtain folate from dietary sources including fruits, green and leafy vegetables, yeast, and organ meats. Folate is absorbed through the small intestine and stored in the liver. Low folate intake, malabsorption as a result of gastrointestinal diseases, pregnancy, and drugs such as phenytoin are causes of folate deficiency. Folate deficiency is also associated with chronic alcoholism. Folate and vitamin B12 deficiency impair DNA synthesis, causing macrocytic anemias. These anemias are characterized by abnormal maturation of red blood cell precursors in the bone marrow, the presence of megaloblasts, and decreased red blood cell survival. Since both folate and vitamin B12 deficiency can cause macrocytic anemia, appropriate treatment depends on the differential diagnosis of the deficiency. Serum folate measurement provides an early index of folate status. However, folate is much more concentrated in red blood cells than in serum so the red blood cell folate measurement more closely reflects tissue stores. Red blood cell folate concentration is considered the most reliable indicator of folate status.

### Limitations

Hemolysis significantly increases folate values due to the high folate concentrations in red blood cells. Methotrexate and leucovorin interfere with folate measurement because these drugs cross-react with folate binding proteins.

### Comments:

\*\*\* END OF REPORT \*\*\*

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## THYROID PROFILE.

**Reference No.** : 21015054 **Age/Sex** : 46 Years FEMALE **Reg. Date** : 1/22/2021 10:01  
**Patient** : MS. MANDIRA SHOREY **Delivery** : EMAIL **Collected** : 22/01/2021 10:01  
**Ref. Doctor** : M M PAITHANKAR **Sample Type** : SERUM **Received** :  
**Hospital/NH** : **Reported** : 22/01/2021 14:55  
**Print Date** : 22/01/2021 17:21

<u>Investigation</u>	<u>Result</u>	<u>Biological</u> <u>Reference Interval</u>	<u>Units</u>
FT3 Serum, (CLIA)	4.76	3.80 - 6.00	pmol/L
FREE T4, Serum, (CLIA)	10.9	7.00 - 15.96	pmol/L
TSH, Serum, (CLIA)	2.89	0.45 - 5.33	uIU/ml

### \*Pregnancy

Units	First Trimester	Second Trimester	Third Trimester
Free T4 pmol/L	6.00 - 16.28	5.19 - 13.86	5.77 - 15.79

### \* PHYSIOLOGICAL ALTERATIONS IN THYROID VALUES

### \* REFERENCE RANGE :-

### Pregnancy

Units	First Trimester	Second Trimester	Third Trimester
TSH uIU/mL	0.05 - 3.70	0.31 - 4.35	0.41 - 5.18

\*Reference range has been changed due to change in testing platform.

### Comments:

\*\*\* END OF REPORT \*\*\*

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## VITAMIN B12.

**Reference No.** : 21015054 **Age/Sex** : 46 Years FEMALE **Reg. Date** : 1/22/2021 10:01  
**Patient** : MS. MANDIRA SHOREY **Delivery** : EMAIL **Collected** : 22/01/2021 10:01  
**Ref. Doctor** : M M PAITHANKAR **Sample Type** : SERUM **Received** :  
**Hospital/NH** : **Reported** : 22/01/2021 11:37  
**Print Date** : 22/01/2021 17:21

Investigation	Result	Biological Reference Interval	Units
VITAMIN B12, Serum,(ECLIA)	261.20		pg/ml

Category Range (pg/mL)	Range (pg/mL)
Normal	197-771
Deficient	<197.00

### Summary and Explanation of the Test

Vitamin B12, or cyanocobalamin, is a complex corrinoid compound containing four pyrrole rings that surround a single cobalt atom. Humans obtain vitamin B12 exclusively from animal dietary sources, such as meat, eggs, and milk. Vitamin B12 requires intrinsic factor, a protein secreted by the parietal cells in the gastric mucosa, for absorption. Vitamin B12 and intrinsic factor form a complex that attaches to receptors in the ileal mucosa, where proteins known as trans-cobalamins transport the vitamin B12 from the mucosal cells to the blood and tissues. Most vitamin B12 is stored in the liver as well as in the bone marrow and other tissues. Vitamin B12 and folate are critical to normal DNA synthesis, which in turn affects erythrocyte maturation. Vitamin B12 is also necessary for myelin sheath formation and maintenance. The body uses its B12 stores very economically, reabsorbing vitamin B12 from the ileum and returning it to the liver so that very little is excreted.

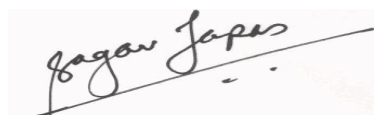
Clinical and laboratory findings for B12 deficiency include neurological abnormalities, decreased serum B12 levels, and increased excretion of methylmalonic acid. The impaired DNA synthesis associated with vitamin B12 deficiency causes macrocytic anemias. These anemias are characterized by abnormal maturation of erythrocyte precursors in the bone marrow, which results in the presence of megaloblasts and in decreased erythrocyte survival. Pernicious anemia is a macrocytic anemia caused by vitamin B12 deficiency that is due to lack of intrinsic factor. Low vitamin B12 intake, gastrectomy, diseases of the small intestine, malabsorption, and trans-cobalamin deficiency can also cause vitamin B12 deficiency.

### Limitations

\* kindly Correlate Clinically

### Comments:

\*\*\* END OF REPORT \*\*\*



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## VITAMIN D, 25 - HYDROXY

**Reference No.** : 21015054      **Age/Sex** : 46 Years      FEMALE      **Reg. Date** : 1/22/2021      10:01  
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**Hospital/NH** :      **Reported** : 22/01/2021      14:55  
**Print Date** : 22/01/2021      17:21

<u>Investigation</u>	<u>Result</u>	<u>Biological</u> <u>Reference Interval</u>	<u>Units</u>
VITAMIN D, 25-HYDROXY, Serum,(CLIA)	78.8	75.00 - 250.00	nmol/L

### INTERPRETATION

Deficient	<50.0	nmol/L
Insufficient	50.0 to <75.0	nmol/L
Sufficient	75.0 - 250.0	nmol/L
Upper Safety Limit	>250.0	nmol/L

Comments:

\*\*\* END OF REPORT \*\*\*

Yamini

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## STOOL ROUTINE EXAMINATION

**Reference No.** : 21015054  
**Age/Sex** : 46 Years FEMALE  
**Reg. Date** : 1/22/2021 10:01  
**Patient** : MS. MANDIRA SHOREY  
**Delivery** : EMAIL  
**Collected** : 22/01/2021 10:01  
**Sample Type** : Stool  
**Received** :  
**Ref. Doctor** : M M PAITHANKAR  
**Reported** : 22/01/2021 12:08  
**Hospital/NH** :  
**Print Date** : 22/01/2021 17:21

### Investigation

#### PHYSICAL EXAMINATION (Manual)

**COLOUR** : BROWNISH  
**CONSISTENCY** : SEMIFORMED  
**MUCUS** : NIL  
**BLOOD** : NIL  
**Parasite** : NIL

#### 3. MICROSCOPIC EXAMINATION (Manual)

**R.B.C.** : NIL  
**MACROPHAGES** : 0-1/HPF  
**W.B.C.** : 1-2/HPF  
**EPITHELIAL** : NIL  
**MUSCLE FIBRES** : NIL  
**TROPHOZITES** : NIL  
**CYSTS** : NIL  
**OVA** : NIL  
**C. L. CRYSTALS** : NIL

Comments:

\*\*\* END OF REPORT \*\*\*

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## URINE ROUTINE EXAMINATION

**Reference No.** : 21015054 **Age/Sex** : 46 Years FEMALE **Reg. Date** : 1/22/2021 10:01  
**Patient** : MS. MANDIRA SHOREY **Delivery** : EMAIL **Collected** : 22/01/2021 10:01  
**Sample Type** : Urine **Received** :  
**Ref. Doctor** : M M PAITHANKAR **Reported** : 22/01/2021 11:54  
**Hospital/NH** : **Print Date** : 22/01/2021 17:21

<u>Investigation</u>	<u>Result</u>	<u>Biological Reference Interval</u>
<b><u>PHYSICAL EXAMINATION (Manual)</u></b>		
COLOUR	PALE YELLOW	YELLOW
TRANSPARENCY	CLEAR	CLEAR
pH (Reagent strip, methyl red phenolphthalein and bromothymol blue)	7.00	4.6 - 8.0
SPECIFIC GRAVITY (Reagent strip (bromothymol blue))	1.000	1.001 - 1.035
<b><u>2. CHEMICAL EXAMINATION</u></b>		
SUGAR (Reagent Strip, GOD/POD)	NEGATIVE	NEGATIVE
PROTEIN Reagent Strip (protein error of a pH indicator method)	NEGATIVE	NEGATIVE
KETONE BODIES Reagent Strip (legals test)	NEGATIVE	NEGATIVE
NITRITE, Reagent Strip (Griess test)	NEGATIVE	NEGATIVE
BLOOD, Reagent Strip (peroxidase method)	POSITIVE	NEGATIVE
<b><u>3. MICROSCOPIC EXAMINATION (Manual)</u></b>		
WBC/HPF	3-4/HPF	<5/HPF
RBC/HPF	4-5/HPF	NIL
EPITHELIAL/HPF	2-3/HPF	<15/HPF
CASTS	NIL	
CRYSTALS	NIL	
BACTERIA	NIL	NIL
YEAST CELLS	NIL	NIL

\*Test Performed on Roche cobas u411, from urine.

Comments:

\*\*\* END OF REPORT \*\*\*



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