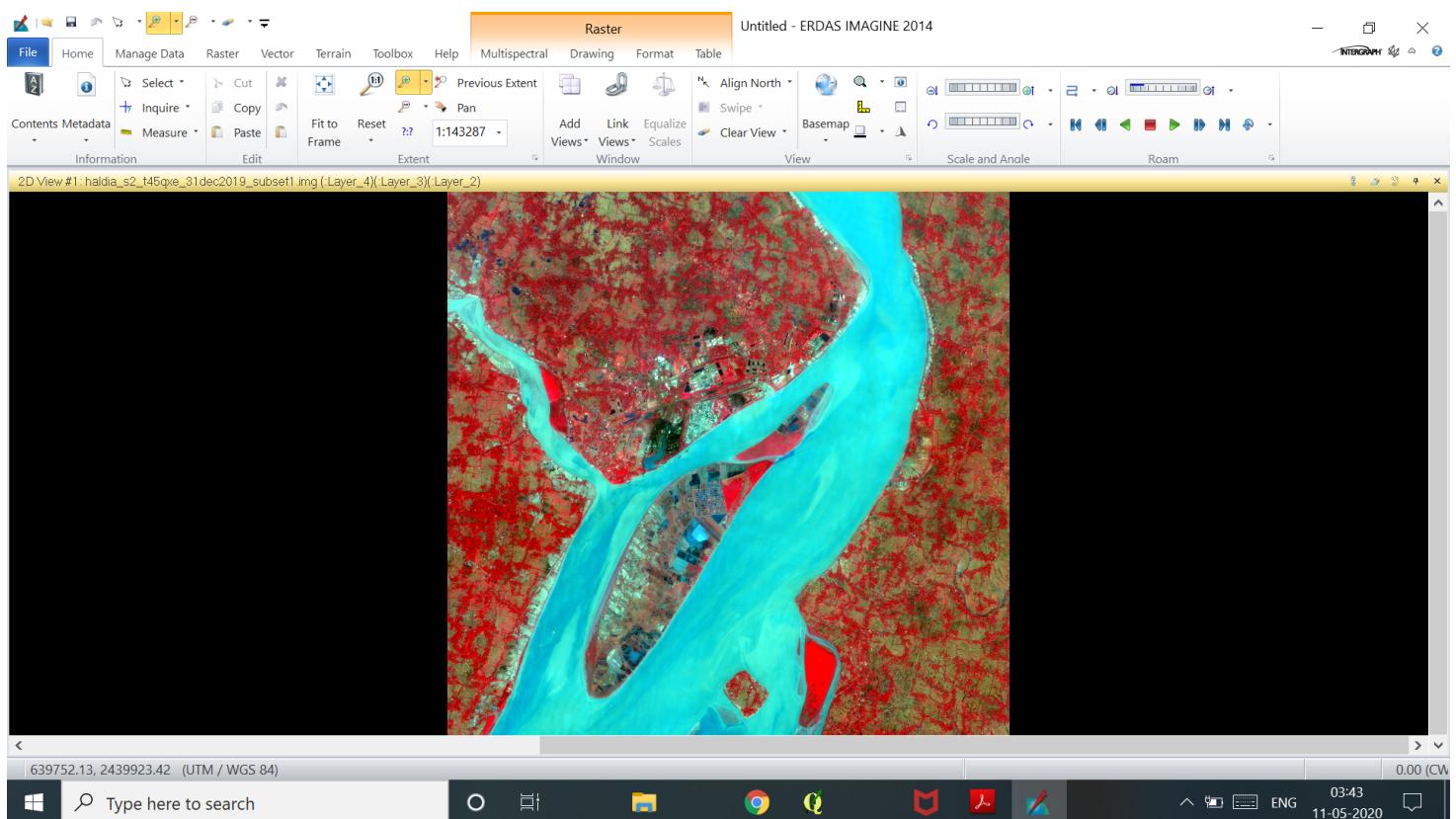


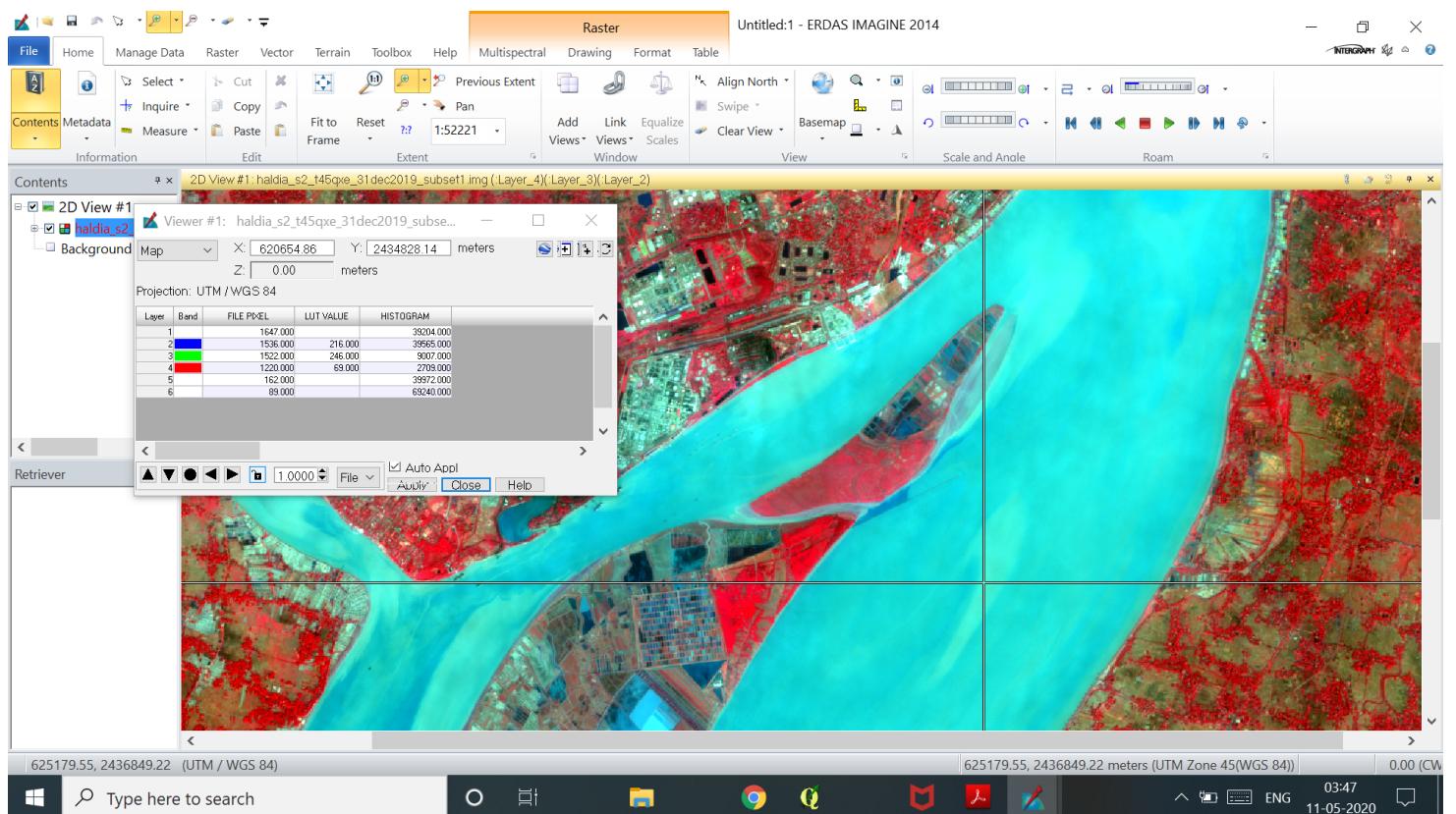
IMAGE 1: HALDIA

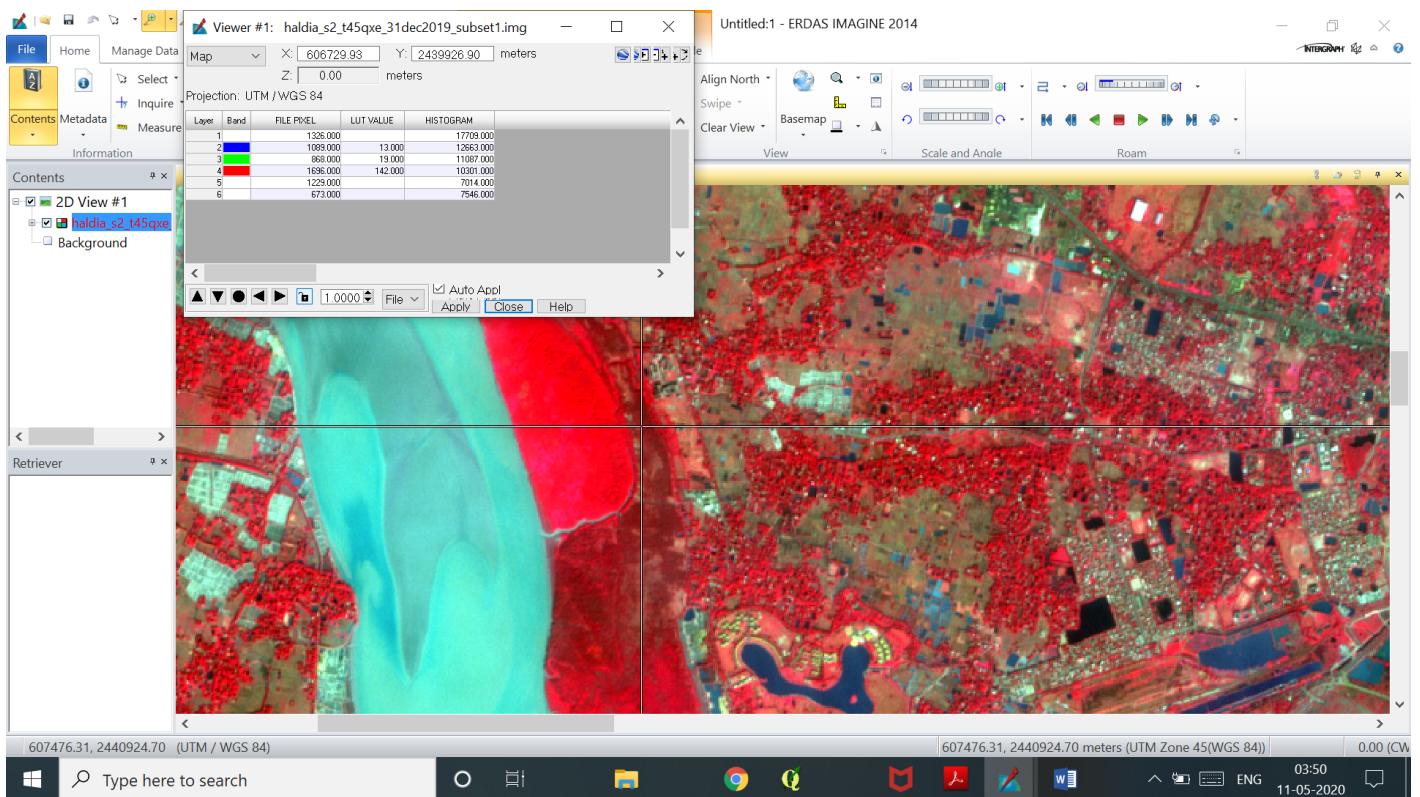
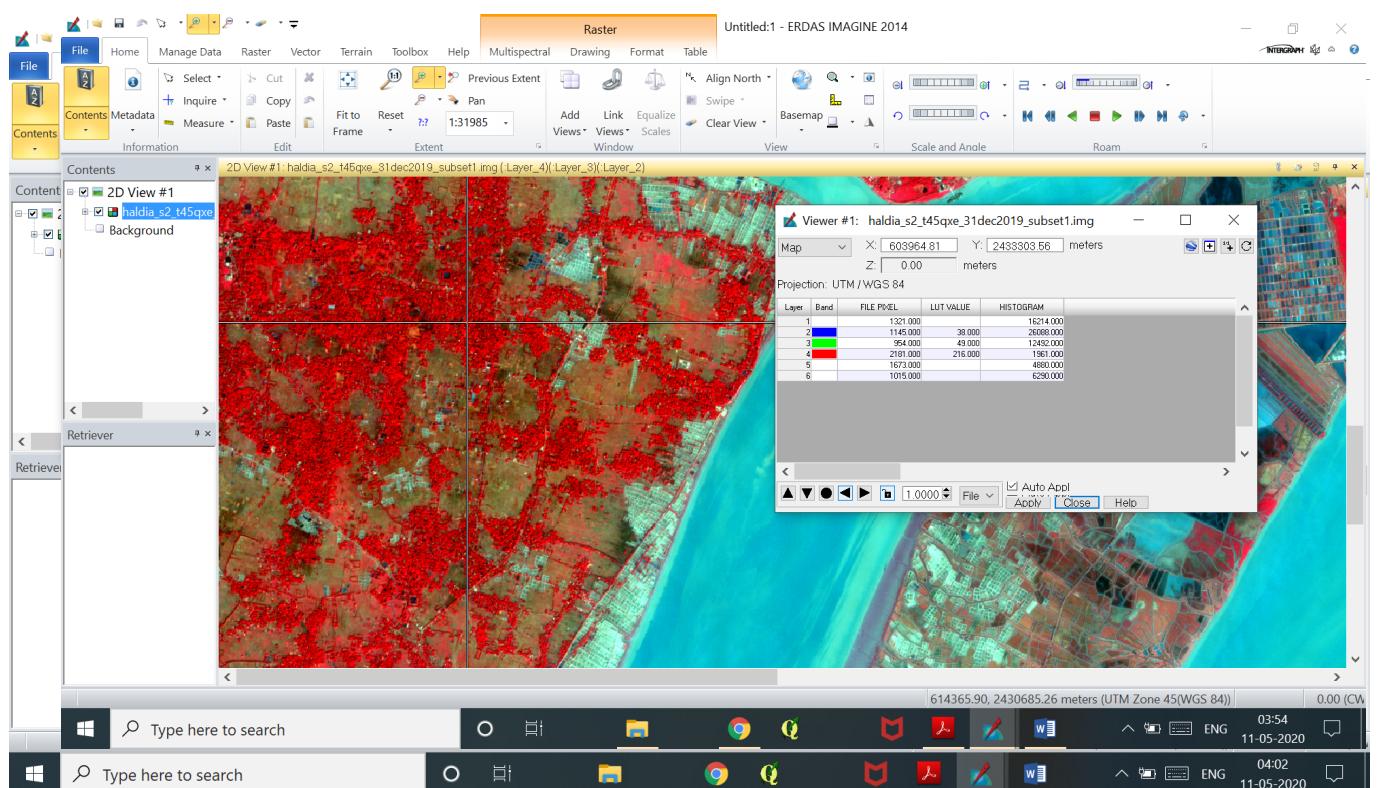
(Standard False Colour Composite: 4,3,2)



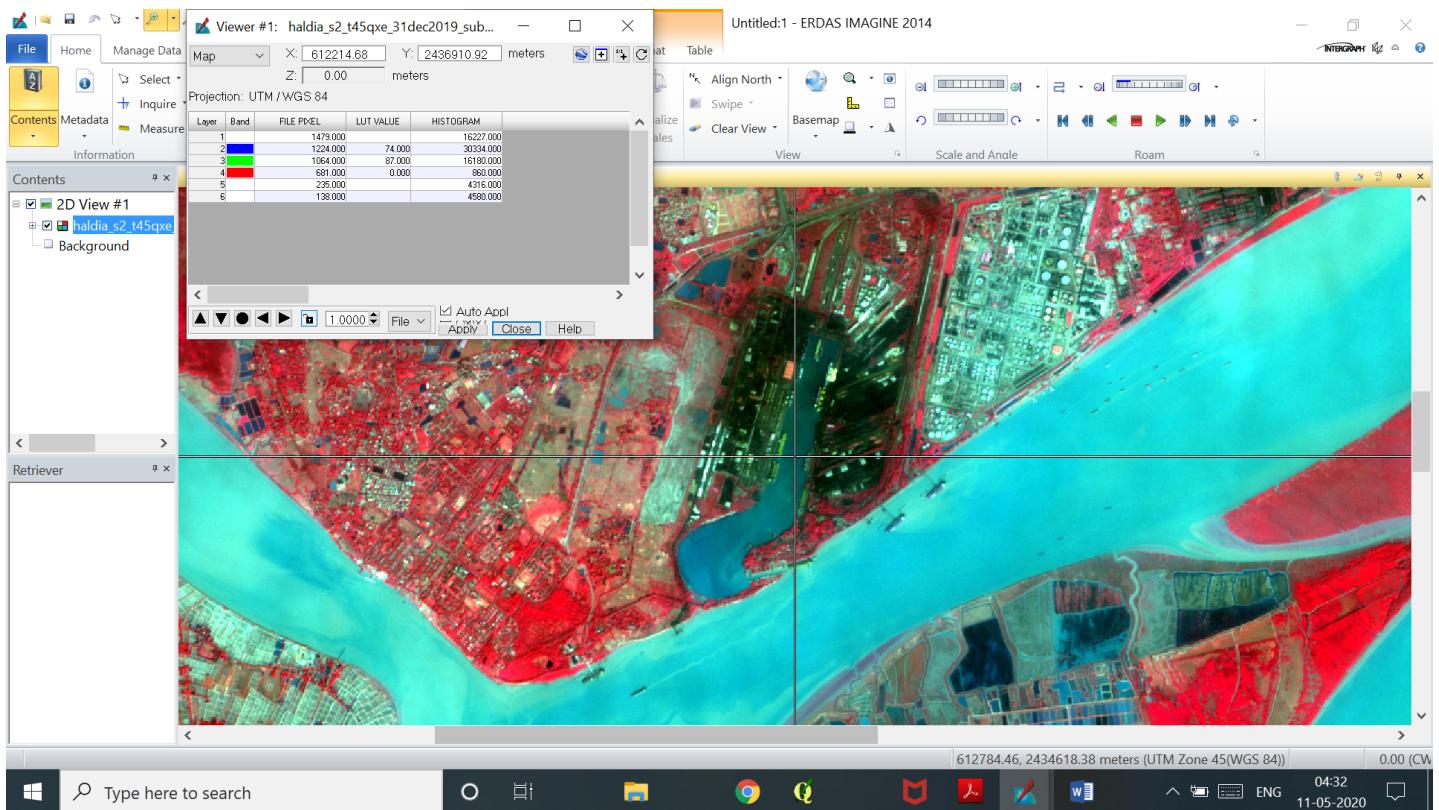
FEATURES

A.

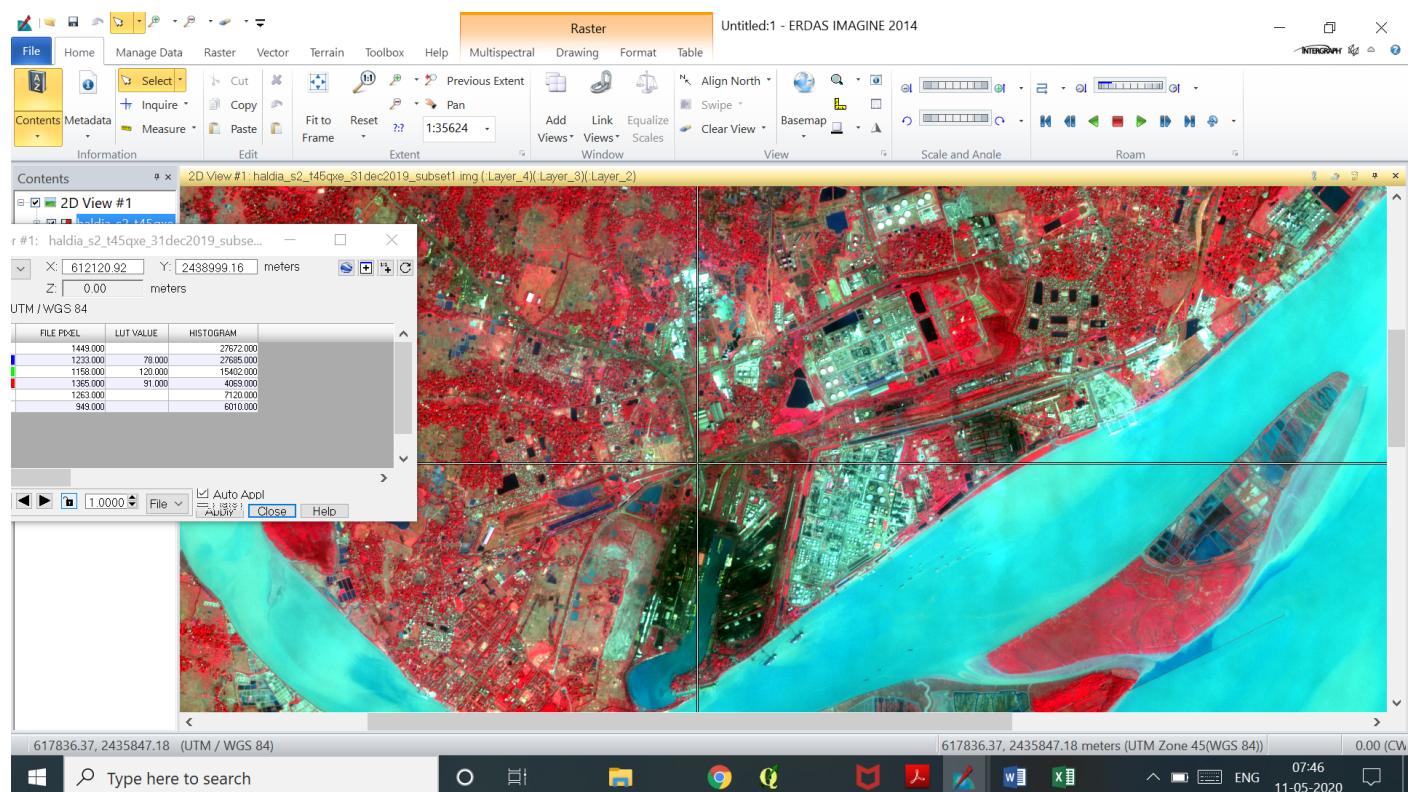


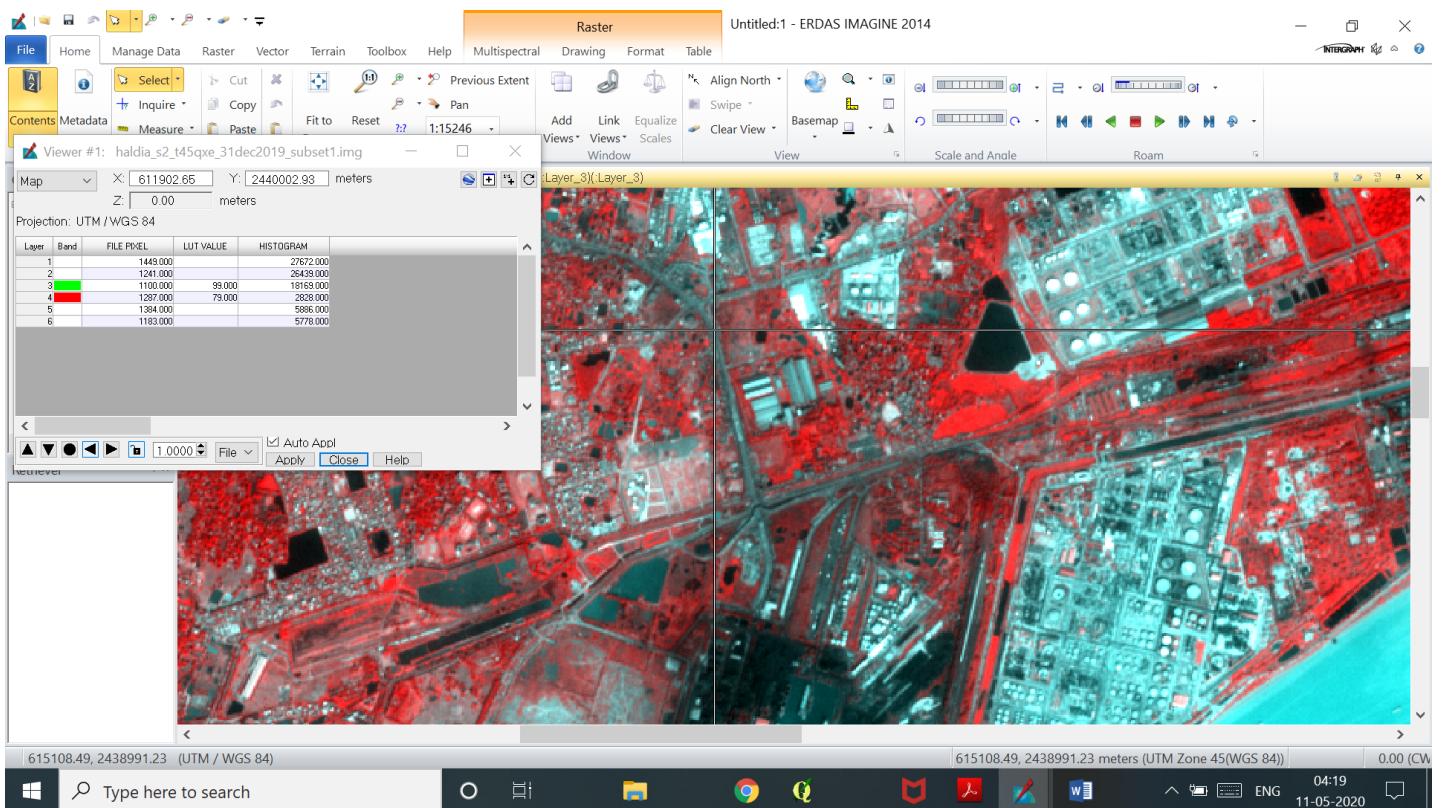
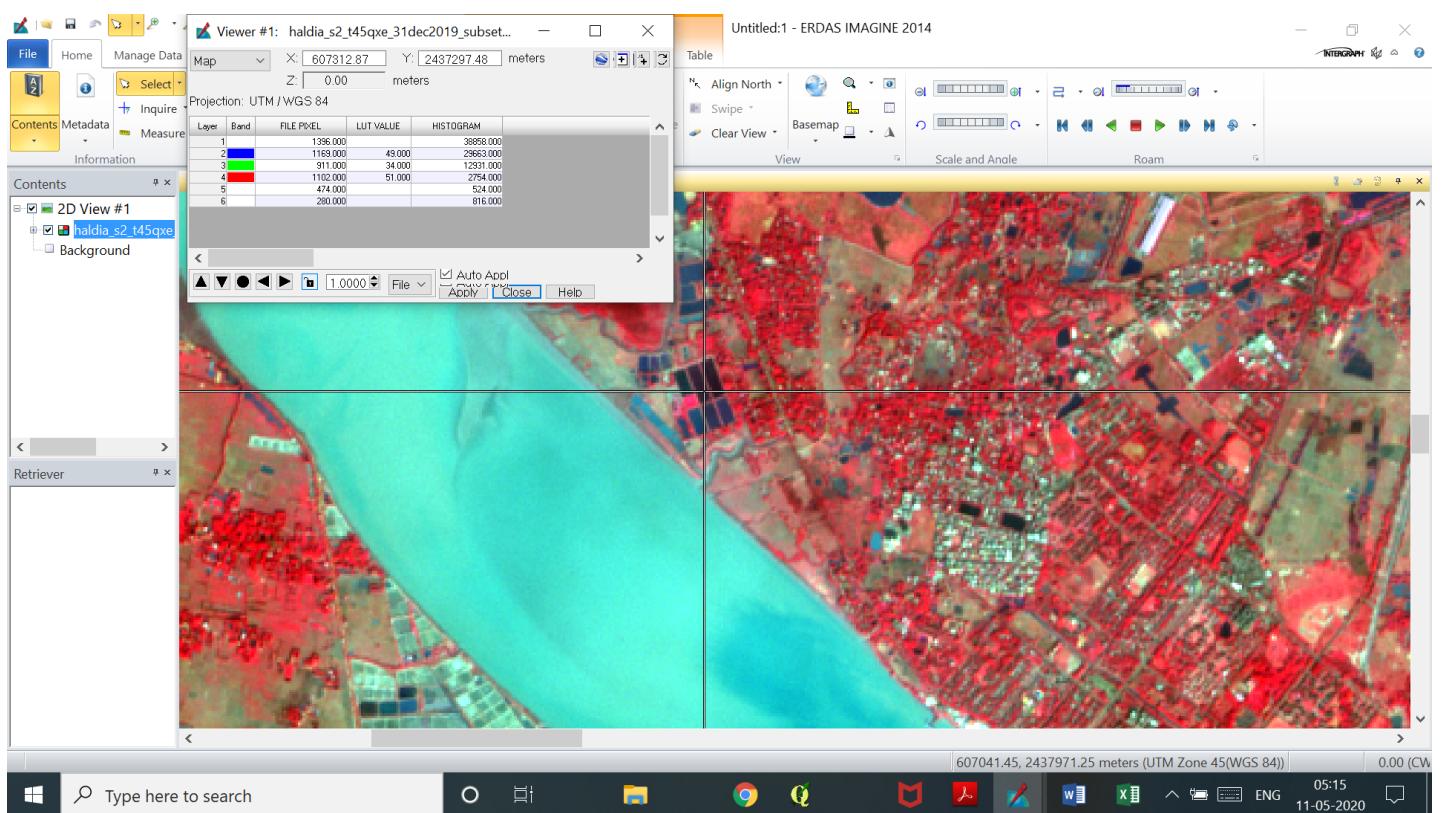
B.**C.**

D.



E.



F.**G.**

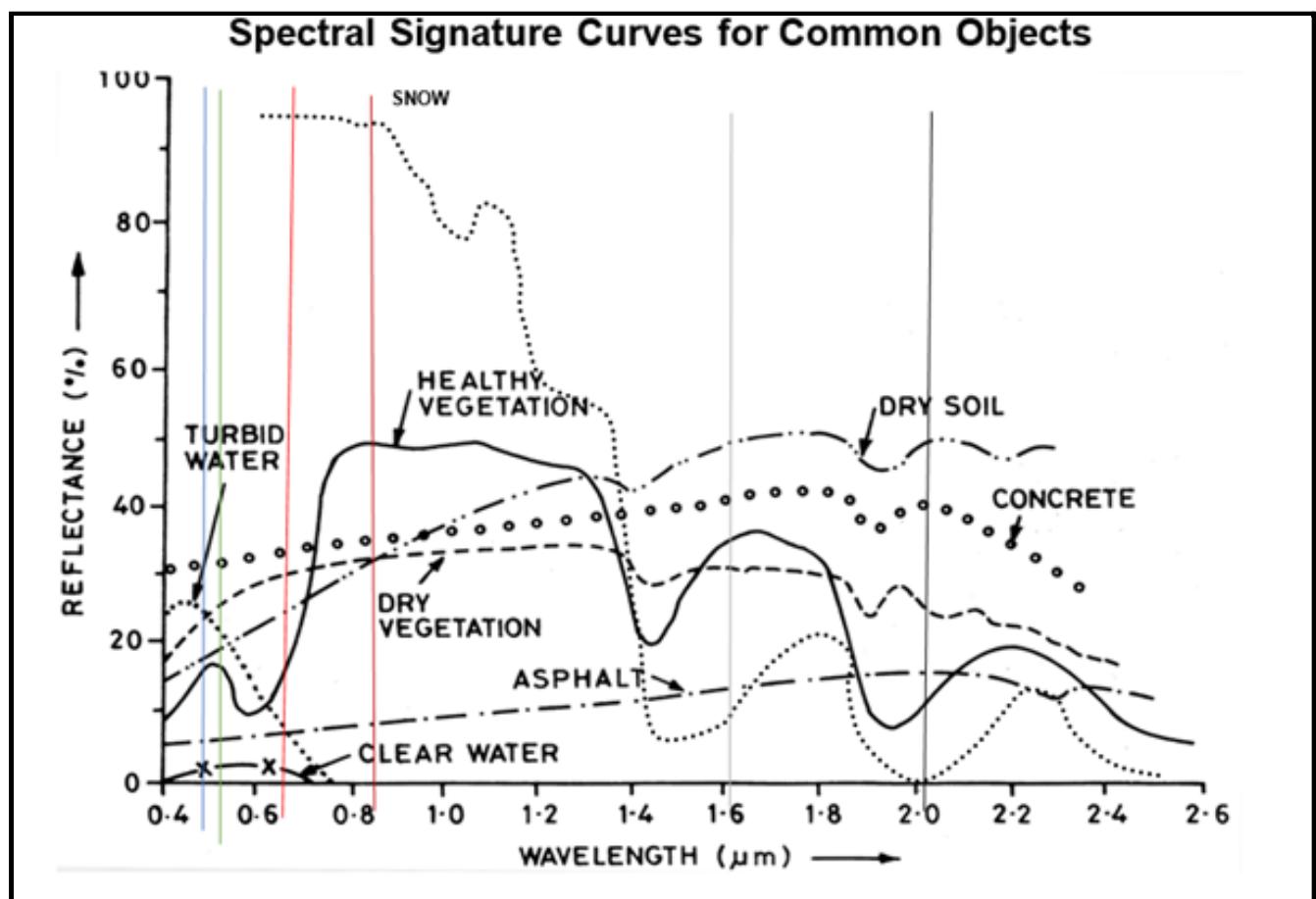
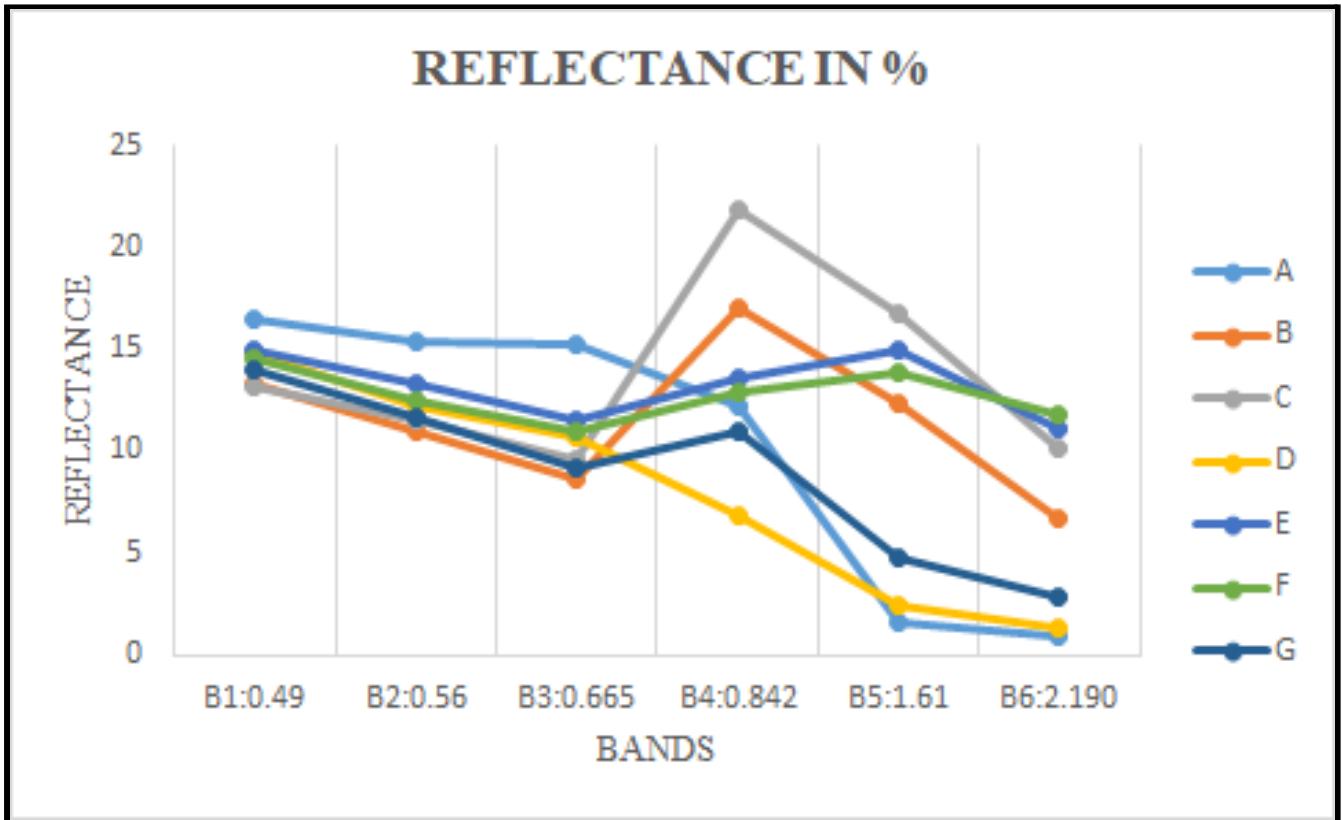
Digital Number values of features identified

Features	Digital Number Values (FCC)					
	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
A.	1647	1536	1522	1220	162	89
B.	1326	1089	868	1696	1229	673
C.	1321	1145	954	2181	1673	1015
D.	1479	1224	1064	681	235	138
E.	1493	1332	1151	1359	1488	1106
F.	1449	1241	1100	1287	1384	1183
G.	1396	1169	911	1102	474	280

Reflectance of features identified in %

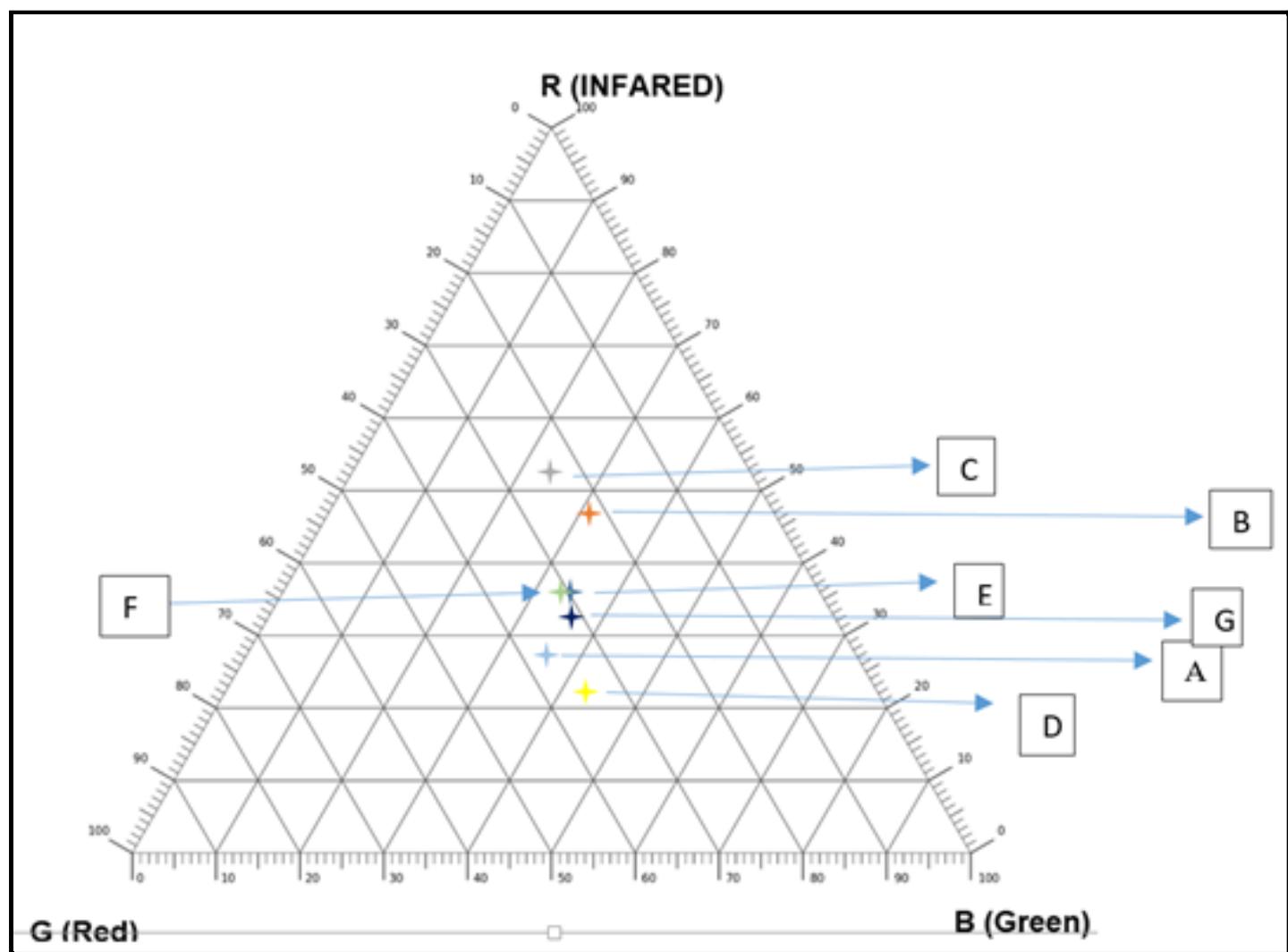
Features	Reflectance in %(FCC)					
	B1: Blue 0.49	B2: Green 0.56	B3: Red 0.665	B4: NIR 0.842	B5: SWIR 1.601	B6: SWIR 2.19
A.	16.47	15.36	15.22	12.20	1.62	0.89
B.	13.26	10.89	8.68	16.96	12.29	6.73
C.	13.21	11.45	9.54	21.81	16.73	10.15
D.	14.79	12.24	10.64	6.81	2.35	1.38
E.	14.93	13.32	11.51	13.59	14.88	11.06
F.	14.49	12.41	11.00	12.87	13.84	11.83
G.	13.96	11.69	9.11	11.02	4.74	2.80

Reflectance of features plotted on a line graph



Sentinel-2 Bands	Wavelengths
Blue	B1: Blue 0.49
Green	B2: Green 0.56
Red	B3: Red 0.665
Red	B4: NIR 0.842
Grey	B5: SWIR 1.610
Dark Grey	B6: SWIR 2.190

TERNARY DIAGRAM FOR FEATURES BASED ON REFLECTANCE



Calculation of reflectance for ternary representation

Features	DN Values (FCC)			Reflectance for ternary representation (%)		
	B2: Green 0.56	B3: Red 0.665	B4: NIR 0.842	B2: Green	B3: Red	B4: NIR
A.	15.36	15.22	12.20	36	36	28
B.	10.89	8.68	16.96	30	24	46
C.	11.45	9.54	21.81	27	22	51
D.	12.24	10.64	6.81	41	36	23
E.	13.32	11.51	13.59	35	30	35
F.	12.41	11.00	12.87	35	30	35
G.	11.69	9.11	11.02	37	28	35

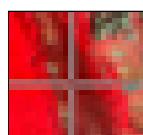
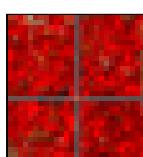
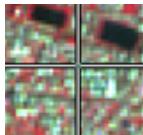
IMAGE INTERPRETATION-1

1. INTRODUCTION

This is image no. 1 which has been taken for interpretation. In the photo above, **7 land covers are distinct and identifiable.** This image is in standard false colour composite. For identification of those elements we have marked it with letters of the alphabet in the pages above.

2. INTERPRETATION

2.1 INTERPRETATION TABLE

Feature	Tone	Size	Shape	Texture	Pattern	Height/s hadow	Remarks
A. 	Aqua	Very Large	Y-shaped	Smooth	Linear and branched	-	This feature looks like a wide shallow river.
B. 	Red	small	Undefined	Small grains	Irregular	-	This feature looks like wet river sediment accumulated on edge.
C. 	Bright Red	Large	undefined	Rough with medium grains	Irregular	Small silhouette	The feature might be vegetation.
D. 	Blue	Narrow	Elongated protrusion	Smooth with rough edges	Protruding	-	The feature looks like an inshore harbour.
E. 	Variable	Small	Irregular	Coarse	Pixelated	Variable	This might be built up areas with vegetation in

							between
F.	Grey Medium	Narrow	Long rectangular	Smooth	Branched linear	-	This feature might be a road or railway track.
G.	Dark Blue	-	Quadrilatera l	Slightly coarse	Stacked polygon	Variable	It looks like a water filled field i.e. wetland.

3. Site, Situation and Association

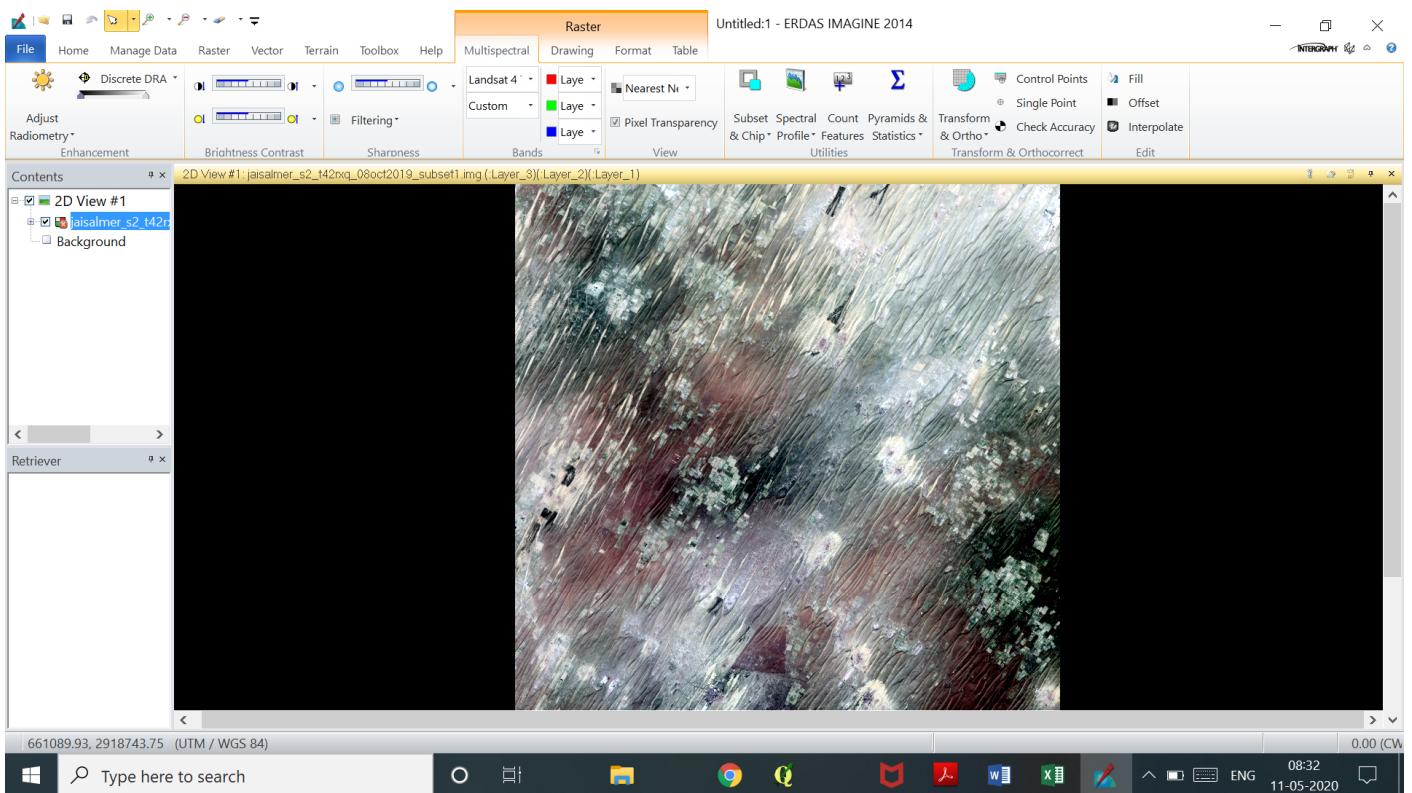
The landscape shown in the image appears to be a settlement along the river. The river is in its old stage given its width, shallow waters and a riverine island. The settlement is dense and there are agricultural fields on the riverine island.

4. Final remarks

Based on prior knowledge, we know that the image depicts a part of a town named Haldia in west Bengal. It is a port town on the banks of river Ganga which is wide enough for inland waterways.

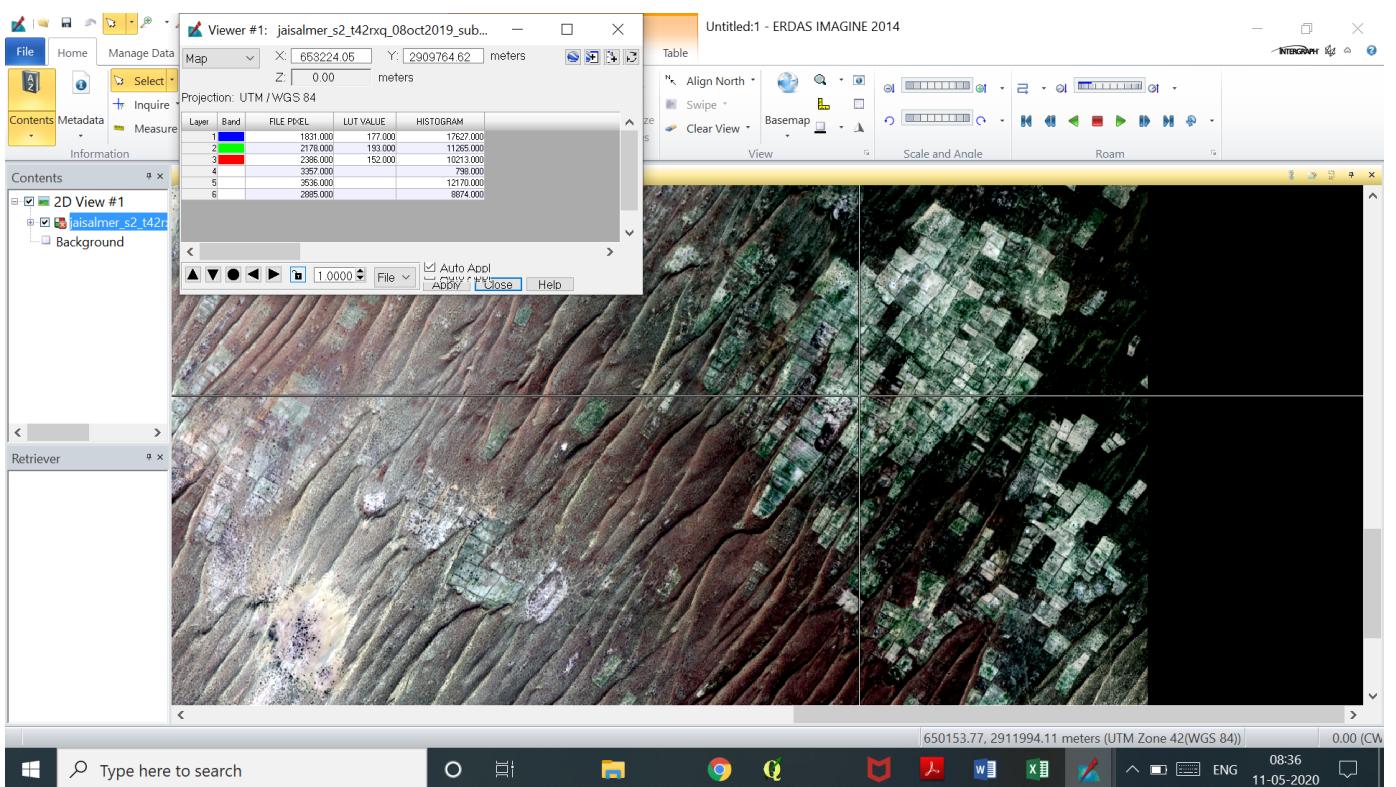
IMAGE 2: JAISALMER

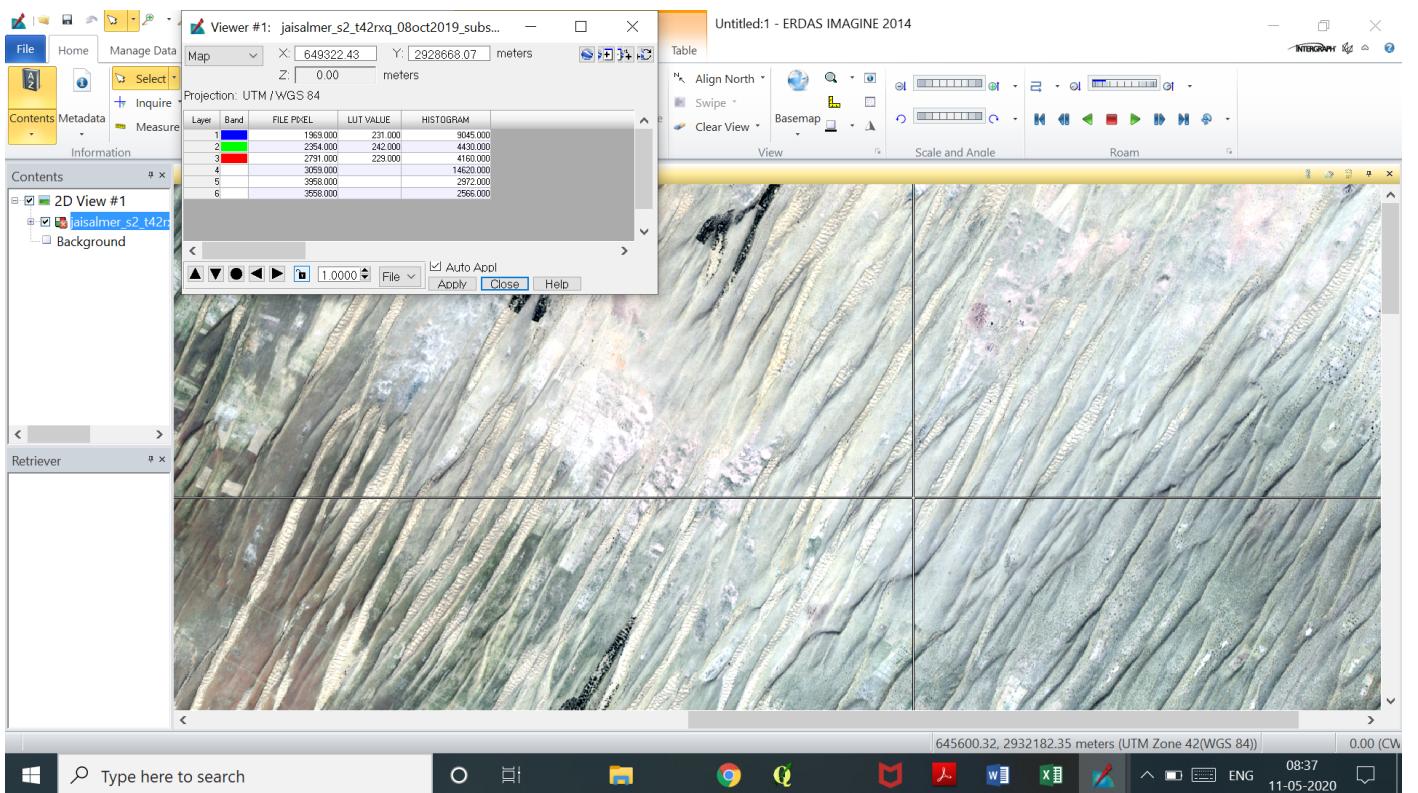
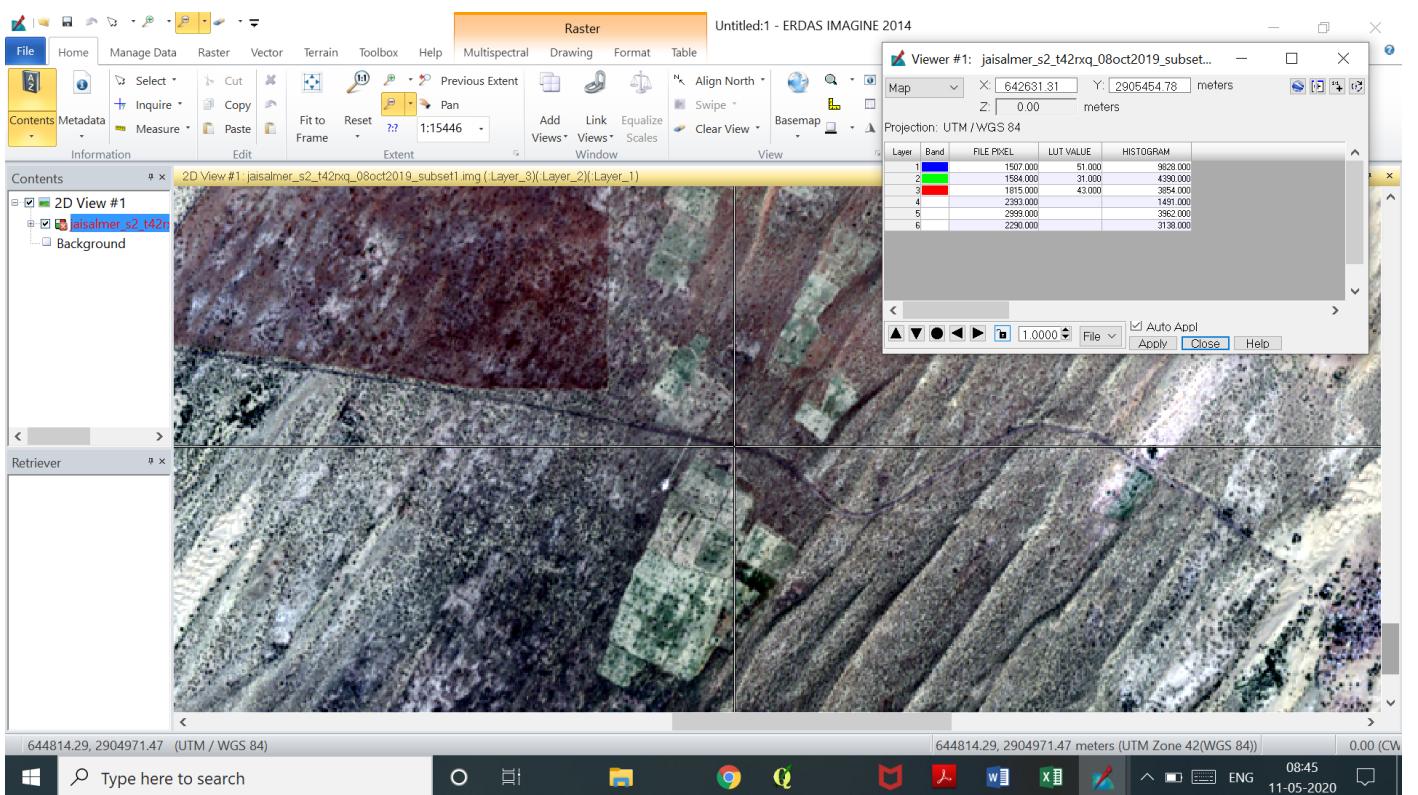
(True Colour Composite: 3,2,1)



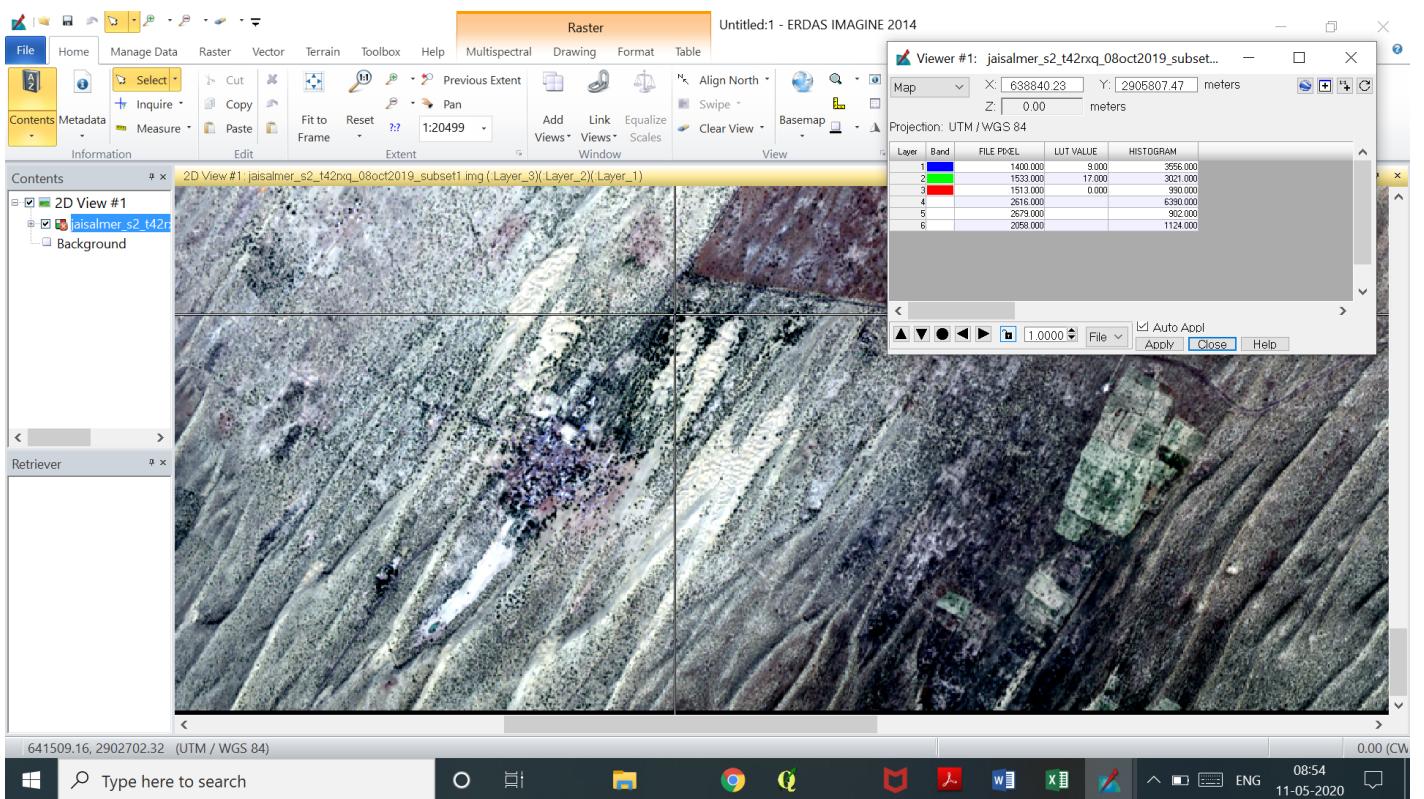
FEATURES

A.



B.**C.**

D.



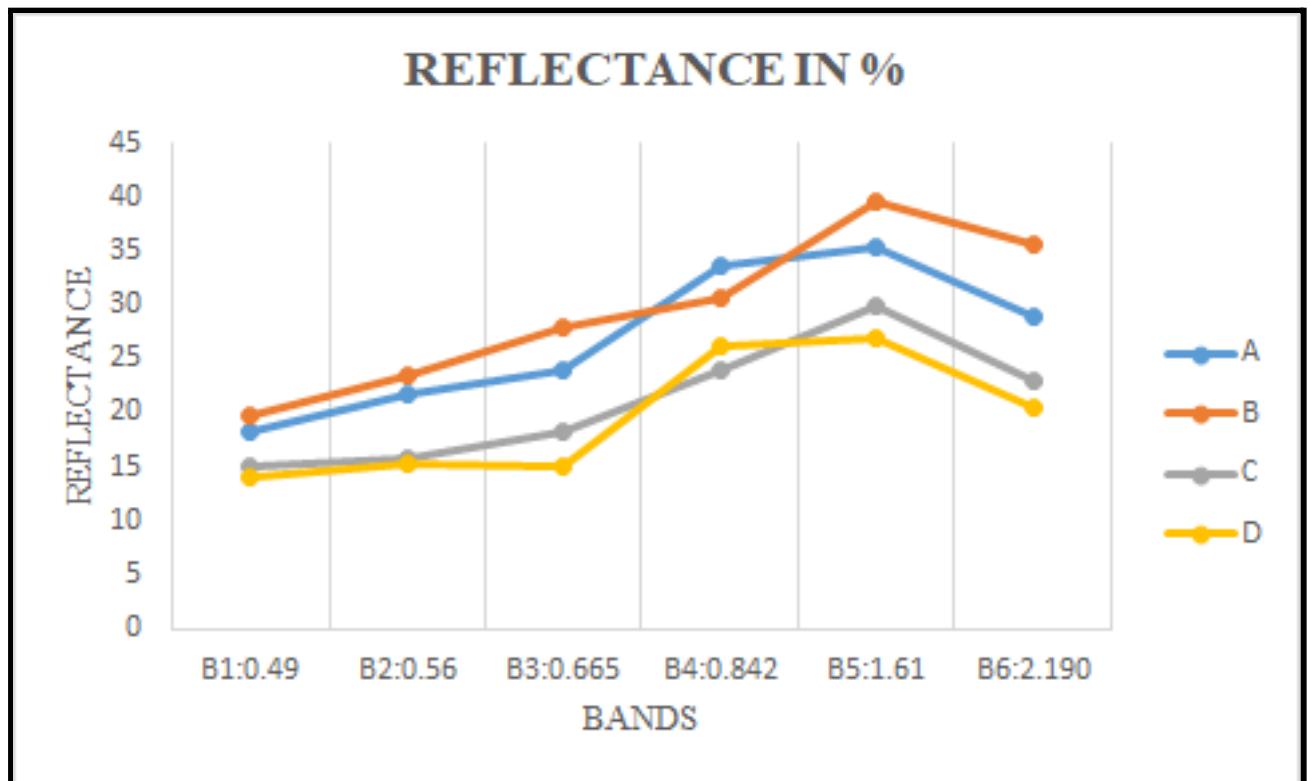
Digital Number values of features identified

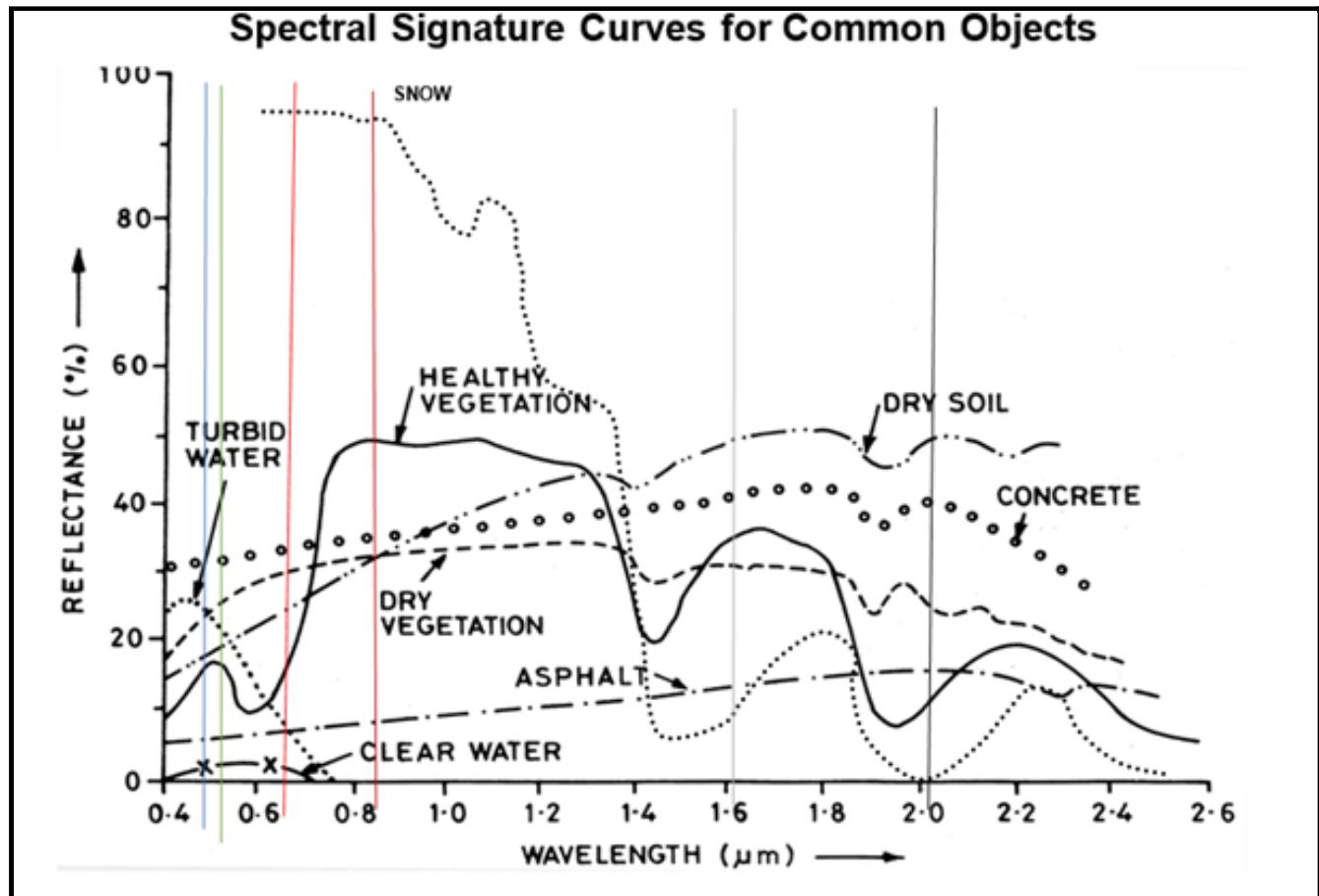
Features	Digital Number Values (FCC)					
	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
A.	1831	2178	2386	3357	3536	2885
B.	1969	2354	2791	3059	3958	3558
C.	1507	1584	1815	2393	2999	2290
D.	1400	1533	1513	2616	2679	2058

Reflectance of features identified in %

Features	Reflectance in %(FCC)					
	B1: Blue 0.49	B2: Green 0.56	B3: Red 0.665	B4: NIR 0.842	B5: SWIR 1.601	B6: SWIR 2.19
A.	18.31	21.78	23.86	33.57	35.36	28.85
B.	19.69	23.54	27.91	30.59	39.58	35.58
C.	15.07	15.84	18.15	23.93	29.99	22.90
D.	14.00	15.33	15.13	26.16	26.79	20.58

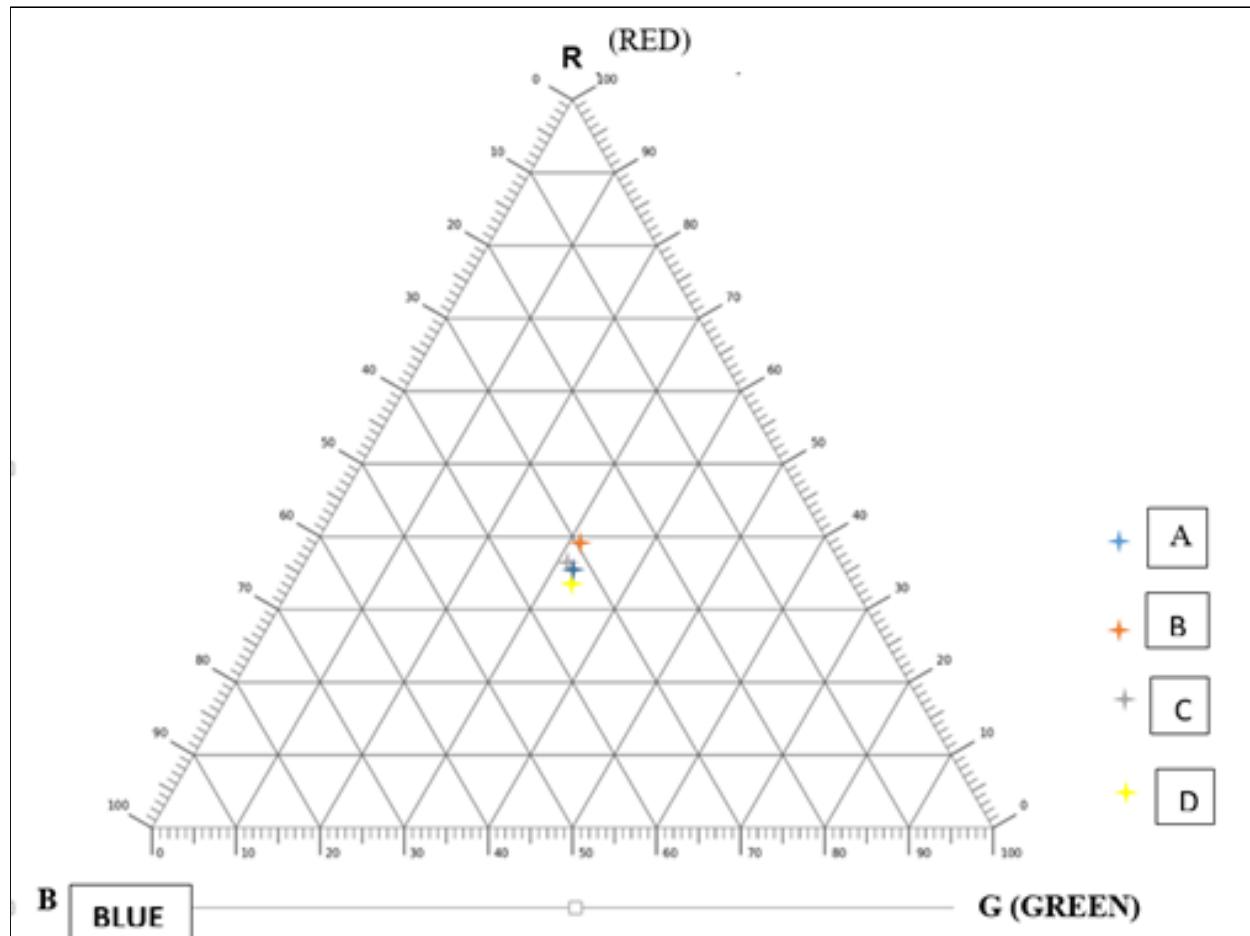
Reflectance of features plotted on a line graph





Sentinel-2 Bands	Wavelengths
Blue	B1: Blue 0.49
Green	B2: Green 0.56
Red	B3: Red 0.665
NIR	B4: NIR 0.842
SWIR 1	B5: SWIR 1.610
SWIR 2	B6: SWIR 2.190

TERNARY DIAGRAM FOR FEATURES BASED ON REFLECTANCE



Calculation of reflectance for ternary representation

Features	DN Values (FCC)			Reflectance for ternary representation (%)		
	B2: Blue 0.49	B3: Green 0.56	B4: Red 0.665	B2: Blue	B3: Green	B4: Red
A.	18.31	21.78	23.86	29	34	37
B.	19.69	23.54	27.91	28	33	39
C.	15.07	15.84	18.15	31	32	37
D.	14.00	15.33	15.13	32	34	34

IMAGE INTERPRETATION-2

1. INTRODUCTION

This is image no. 1 which has been taken for interpretation. In the photo above, **4 land covers are distinct and identifiable**. This image is in true colour composite. For identification of those elements we have marked it with letters of the alphabet in the pages above.

2. INTERPRETATION

2.1 INTERPRETATION TABLE

Feature	Tone	Size	Shape	Texture	Pattern	Height/s hadow	Remarks
A.	Variable	Medium	Quadrilaterals	Coarse	Stacked Polygons Dispersed in various parts	Variable	This feature appears like a settlement made of brick and concrete but rural in character due to its remoteness
B.	Light blue with shades of green	Very large	Undefined	Smooth	Wave like	Variable	This feature looks like sand dunes.
C.	Dark purple	Narrow	Long	Moderately rough	Linear	-	This feature looks like a road in an undulating landscape or rural in character

D.	Blue grey	Very small	Mushroom	Course	Dispersed	Variable	This feature appears like vegetation in a dry region
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3. Site, Situation and Association

The landscape shown in the image looks like a vast open region with dispersed settlements and dispersed vegetation. Thus, it appears like an arid or semi- arid region.

4. Final remarks

Based on prior knowledge this region is of Jaisalmer in Rajasthan where there are vastly spread dunes of Thar desert and dispersed pockets of dense settlements. Vegetation is sparse and has a small canopy.