

**QUANTITY ESTIMATION OF STOCKPILES A COAL  
AT NUVOCO CEMENT PLANT, NIMBOL, RAJASHTHAN**

*By*



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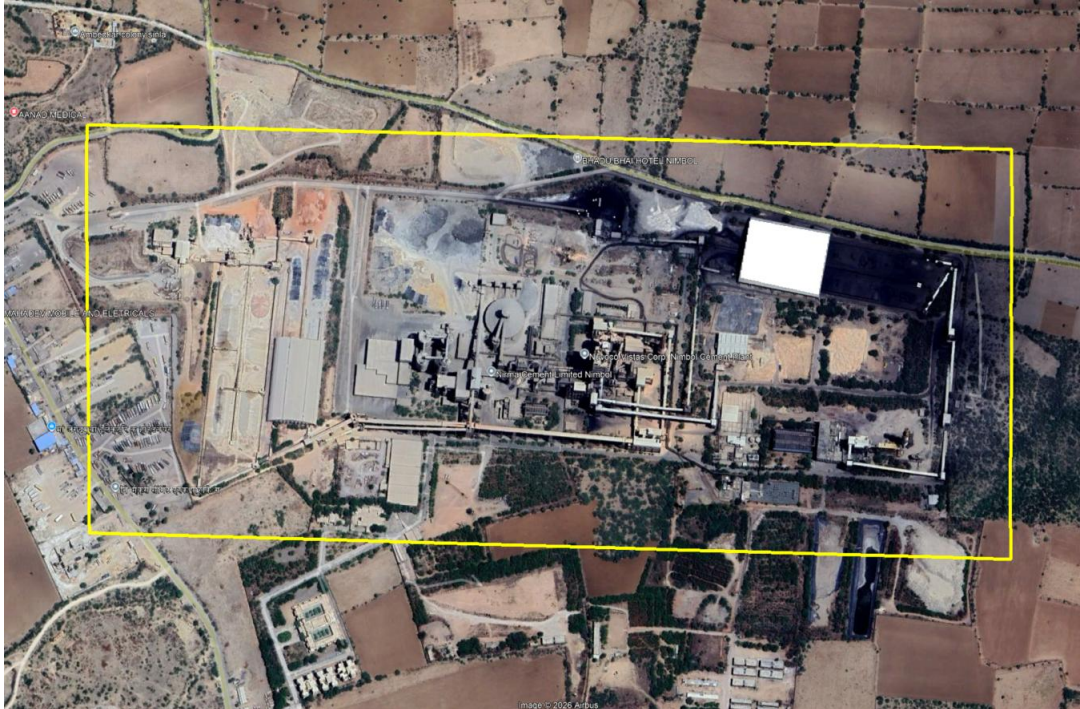
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## 1. Introduction

The data acquisition done as on 28 February, 2026, site is located in Nimbol, in the state of Rajasthan and the geolocation is latitude is  $26.332378^\circ$  and longitude is  $73.847798^\circ$

### 1.1 Location



*Figure 1: Location of Site*

## 2. Objective

To carry out volumetric calculation in the cement plant to assess the quantity of stock available in open areas and in shade spread over the 20000 sqm.

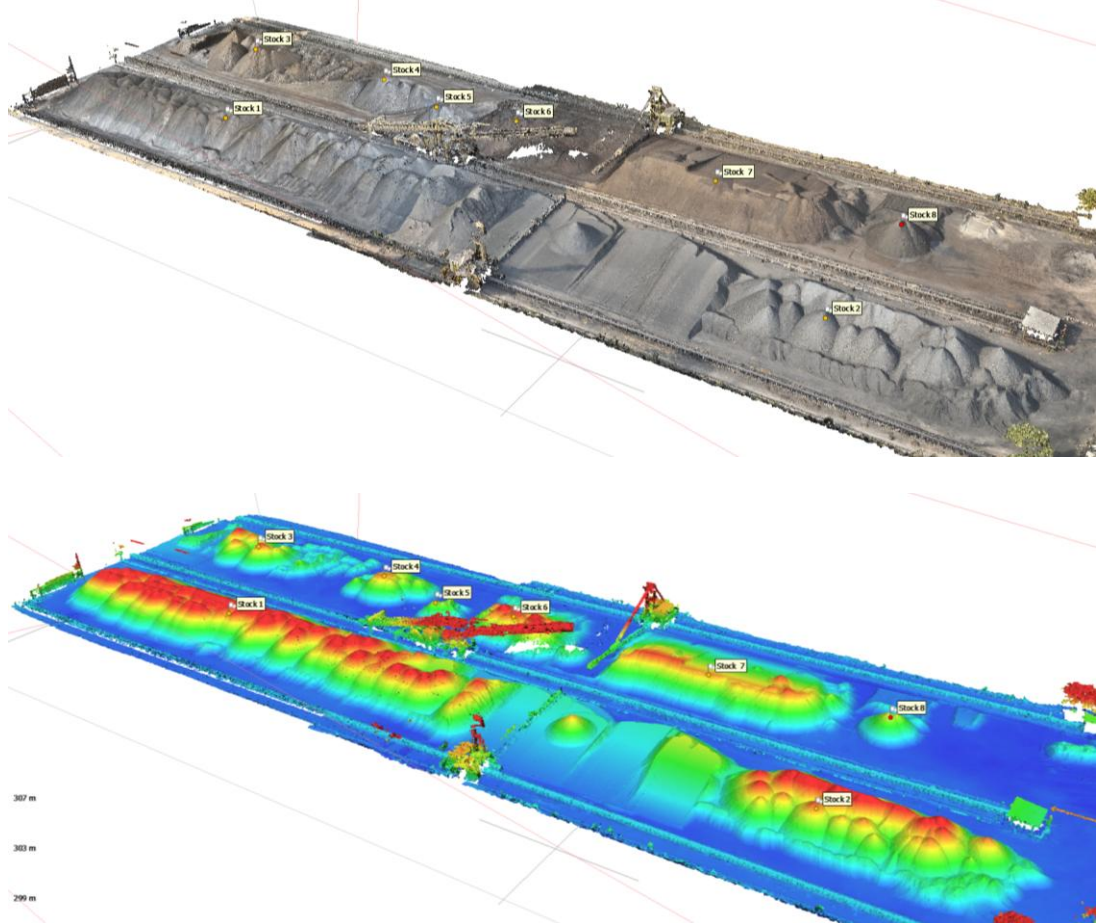
## 3. Methodology

- Team visited at the site to execution the drone capture with DGPs at Nuvoco Nimbol cement plant of stocks available in shaded and open areas.
- Volume calculation is done using DEM model check have elevation at the distance of 1.5cm
- For volume calculation above elevation stock calculation a average elevation of surrounding.

### 3.1 equipment used

1. Drone
2. DGPs

#### 4. Volumetric Calculation for Available stocks



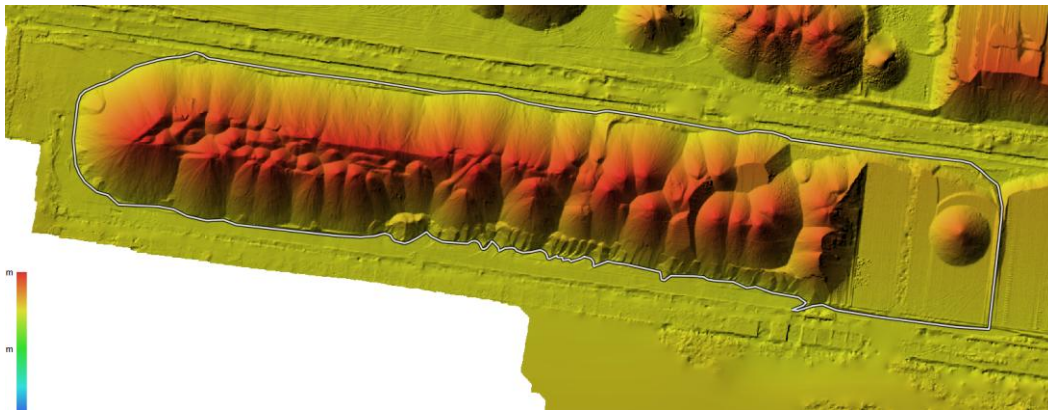
Stock No	Coal Grade	Vol_m3	Base Elevation	Area_sqm	Located	Density	Volume in Tones
1	Petcoke	19867.035	299.73	5723.8	Under Shade	0.9	17880.3315
2	Open Market Coal	5659.74	299.86	2618.2	Open	1.02	5772.9348
3	Lignite	3657.87	299.50	1775.1	Under Shade	0.8	2926.296
4	Open Market Coal	1413.82	299.50	571.16	Under Shade	1.02	1442.0964
5	CMR	359.71	299.50	215.56	Under Shade	1.29	464.0259
6	Lignite	3055.46	299.50	1134.6	Under Shade	0.8	2444.368
7	Lignite	6045.99	299.50	2063.2	Open Area	0.8	4836.792
8	Lignite	471.67	299.50	392.94	Open Area	0.8	377.336
<b>Total Volume of Stocks in Tones</b>							<b>35940.1806</b>

5. Volumetric Calculation of Stock 1 (Petcoke)

Aerial View



DEM MODEL



**Volume Report :-**

Data Capture Date: 28/02/2026  
 Stock (Name): Stock 1 (Petcoke)

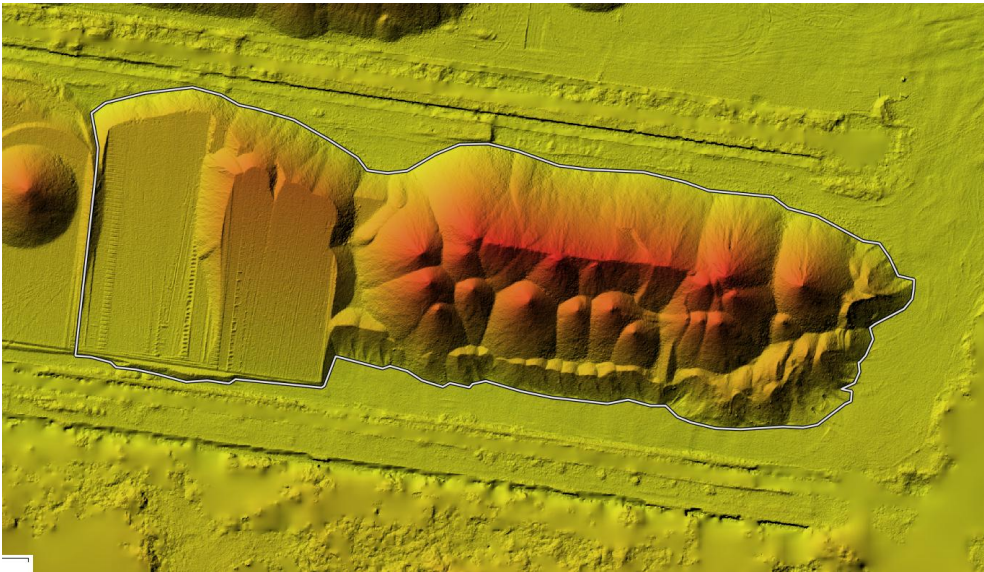
Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 1	Petcoke	299.73m	5726.51 sqm	19867.035 m <sup>3</sup>	0.9	17880.33

6. Volumetric Calculation of Stock 2 (Open Market Coal)

Aerial View



DEM MODEL



**Volume Report:-**

Data Capture Date:

28/02/2026

Stock (Name):

Stock 2 (Open Market Coal)

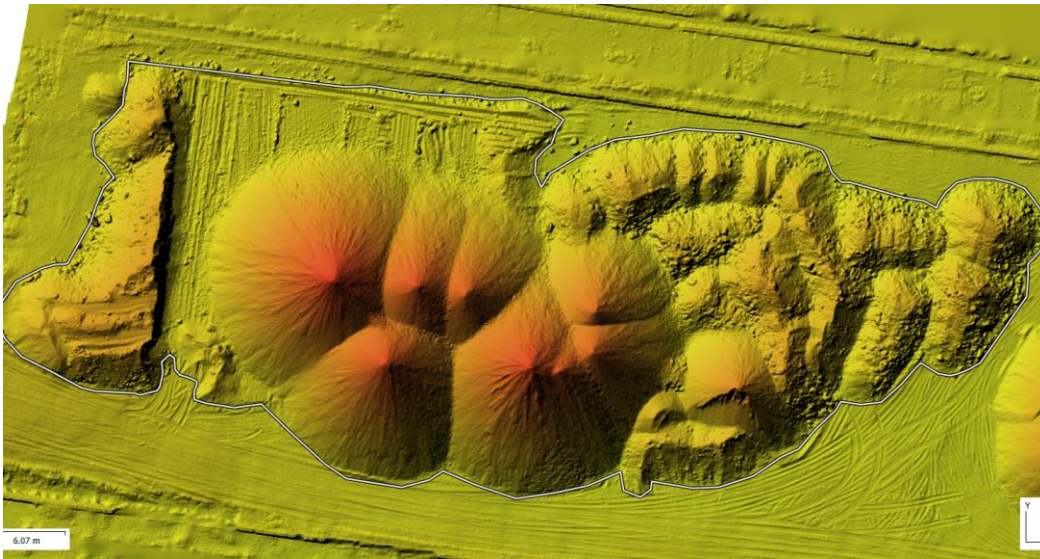
Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 2	Open Market Coal	299.86m	2618.22 sqm	5659.74 m <sup>3</sup>	1.02	5772.9348

## 7. Volumetric Calculation of Stock 3 (Lignite)

Aerial View



DEM MODEL



### Volume Report:-

Data Capture Date: 28/02/2026  
 Stock (Name): Stock 3 (Lignite)

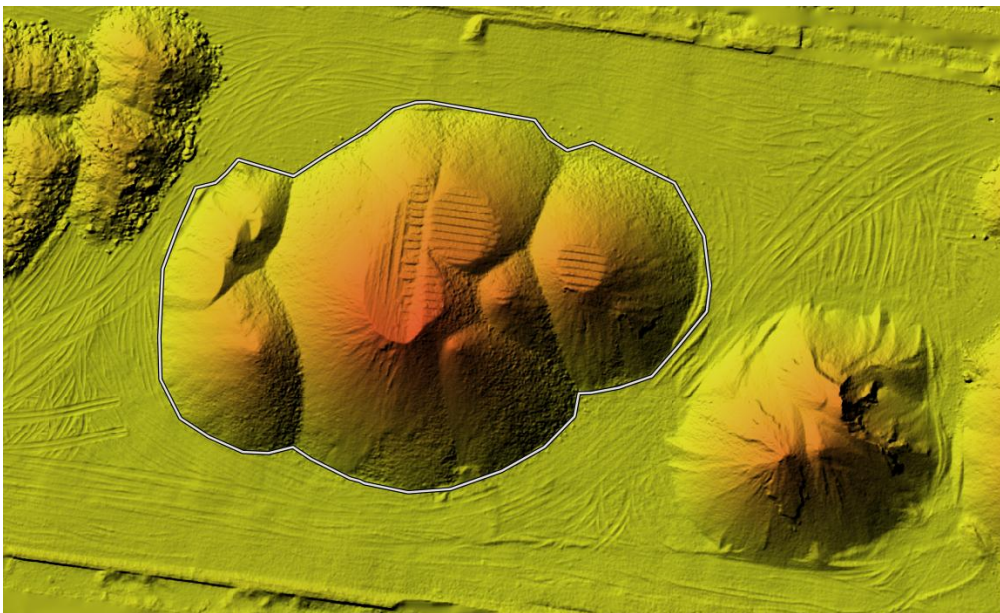
Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 3	Lignite	299.50m	1775.10 sqm	3657.87 m <sup>3</sup>	0.8	2926.29

8. Volumetric Calculation of Stock 4 (Open Market Coal)

Aerial View



DEM MODEL



**Volume Report:-**

Data Capture Date:

28/02/2026

Stock (Name):

Stock 4 (Open Market Coal)

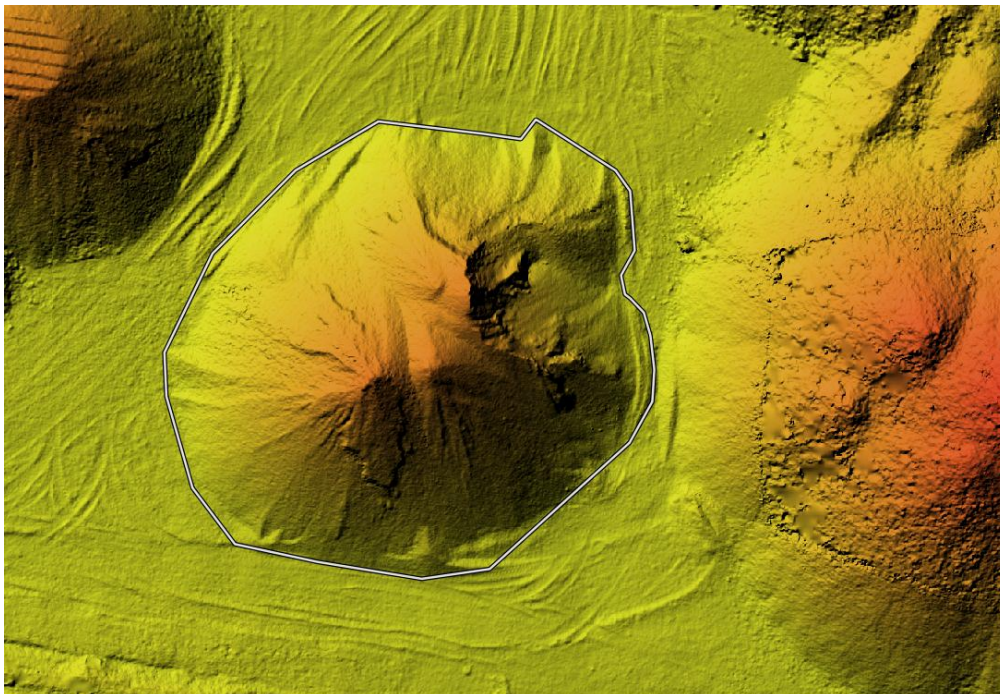
Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 4	Open Market Coal	299.50m	571.15 sqm	1413.82 m <sup>3</sup>	1.02	1442.09

9. Volumetric Calculation of Stock 5 (CMR)

Aerial View



DEM MODEL



**Volume Report:-**

Data Capture Date: 28/02/2026

Stock (Name): Stock 5 (CMR)

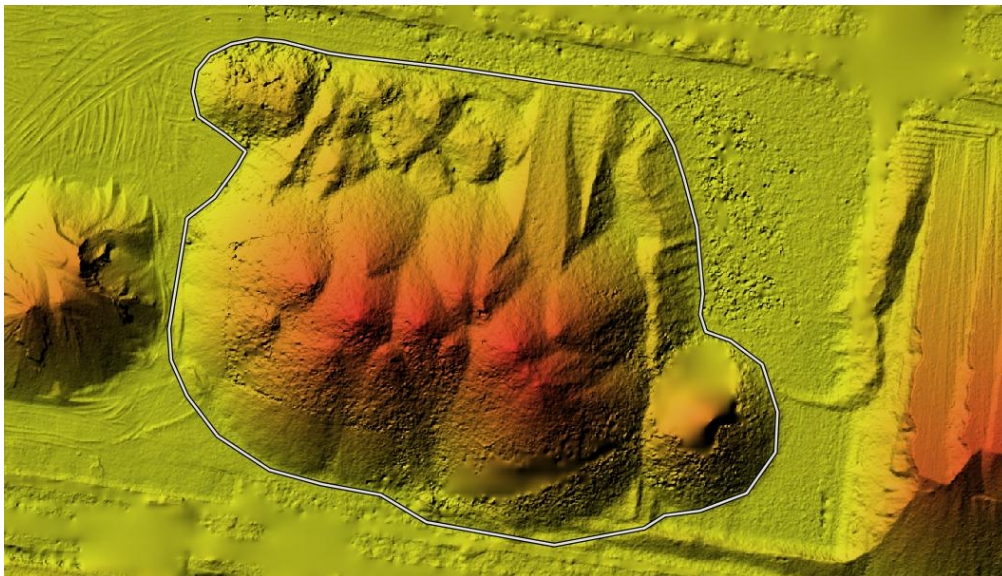
Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 5	CMR	299.50m	215.55 sqm	359.71 m <sup>3</sup>	1.29	464.02

## 10. Volumetric Calculation of Stock 6 (Lignite)

Aerial View



DEM MODEL



### Volume Report:-

Data Capture Date: 28/02/2026  
Stock (Name): Stock 6 (Lignite)

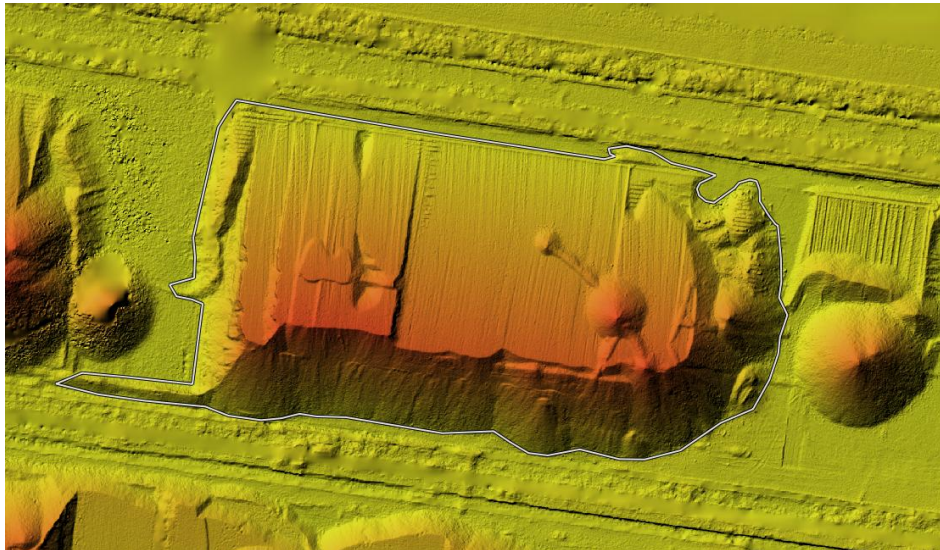
Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 6	Lignite	299.50m	1134.62 sqm	3055.46 m <sup>3</sup>	0.8	2444.36

## 11. Volumetric Calculation of Stock 7 (Lignite)

Aerial View



DEM MODEL



### Volume Report:-

Data Capture Date:

28/02/2026

Stock (Name):

Stock 7 (Lignite)

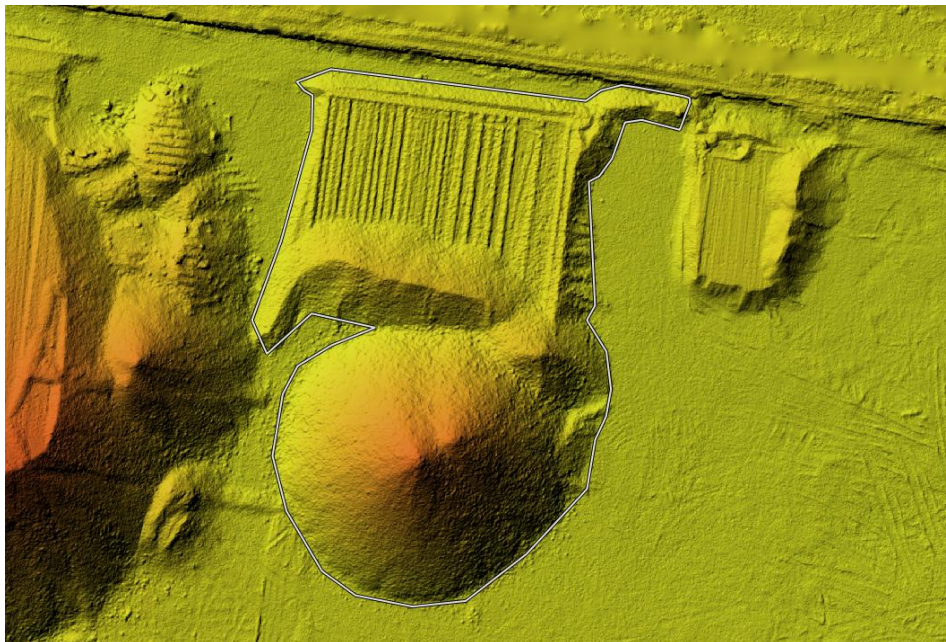
Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 7	Lignite	299.50m	2063.20 sqm	6045.99 m <sup>3</sup>	0.8	4836.792

## 12. Volumetric Calculation of Stock 8 (Lignite)

Aerial View



DEM MODEL



### Volume Report:-

Data Capture Date: 28/02/2026

Stock (Name): Stock 8 (Lignite)

Volume Summary						
Name	Coal Grade	Base Avg Elevation	Area (sqm)	Net Volume (m <sup>3</sup> )	Density	Volume in Tones
Stock 8	Lignite	299.50m	392.93 sqm	471.67 m <sup>3</sup>	0.8	377.36

