14. Reconnaissance survey for Potash & Halite in Ramsara -Amarkot -Dalmir- Khera area in Fazilka District, Punjab

Implementing Agency: Ocean Drilling and Exploration Private Limited

Sl No	Features	Details
I	Block ID	
II	Exploration Agency	Ocean Drilling & Exploration Pvt Ltd.
III	Previous Exploration Agency	GSI
IV	Previous stage (Geological Report)	G-4
V	Commodity	Potash & Halite
VI	Mineral Belt	Punjab Evaporite Sub Basin
VII	Completion Period with entire schedule to complete the project	10 months
VIII	Objectives	1. Phase-I a) Large scale mapping of the area at 1:12500 scale to delineate the surface outcrops, if any. b) Based on the earlier work, drilling of 07 nos. of borehole on grid pattern of 1600mx1600m to fill the gap area. c) Detail core logging and sample analysis of drilled core to establish the lateral continuity of potash, Halite and associated mineralization in Basin falling in south western part of Punjab d) Geophysical logging of all the drilled borehole to mark and correlate the high potash zone. 2. Phase-II a) Estimation of the resources of Potash & Halite as Per the UNFC system in 334 Category b) Final Report preparation and submission to NMET.
IX	Whether the work will be carried out by the proposed agency or through outsourcing and Details thereof.	Work will be carried out by the proposed agency and few specialised work may be outsourced.
X	Components to be outsourced and name of the outsource agency	
	Name / Number of Geoscientists	2 nos. of Geoscientist
	Expected Field days (Geology, Geophysics, Surveyor)	Geologist party days on field: 180 Days Geologist party days in HQ: 50 Days
1.	**Location**	
	Latitude & Longitude	Reconnaissance survey for potash & Halite in Ramsara-Amarkot-Dalmir Khera Block, Fazilka District Of Punjab. Proposed block falls in the toposheet No. 44J/04. **A:** 30.058558°N, 74.076356°E **B:** 30.058667°N, 74.080572°E

		C: 30.069758°N, 74.202717°E **D:** 30.069811°N, 74.206947°E **E:** 30.062369°N, 74.206939°E **F:** 30.062367°N, 74.202864°E **G:** 30.051333°N, 74.080708°E **H:** 30.051331°N, 74.076361°E
	Villages	Ramsara, Amarkot, &Dalmir Khera villages
	Tehsil/ Taluk	
	District	Fazlika District
	State	Punjab
2.	**Area (hectares/ square kilometres)**	
	Block Area	10.30 SqKm
	Forest Area	Data not available
	Government Land Area	Data not available
	Private Land Area	
3.	**Accessibility**	
	Nearest Rail Head	Abohar
	Road	The area falls in south-west part of Punjab. The area is well connected by rail and road network. The National Highway NH-7 (Chandigarh-Fazilka) passes through the area via. Chandigarh-Patiala bypass- Sangrur- Bhatinda-Fazilka. Jaipur. The area is well connected with rail network. The nearest railway station is at Abohar. The nearest airport is at Bhatinda and it is 250 Km from Chandigarh and 80 km approx. from the regional boreholes (PFSBH-3 and PFSBH-07), Fazilka district Punjab. Entire area is well connected with metalled road and mud track.
	Nearest Airport	Bhatinda is the nearest airport from the study area which 80 km away.
4.	**Hydrography**	.
	Local Surface Drainage Pattern (Channels)	The most of the study area is devoid of any major stream but the part of the area is mainly drained by canal. The main canal (Bikaner canal) and associated minor canals supply water for agriculture/farming.
	Rivers/ Streams	
5.	Climate	The climate of the area is semi-arid, with maximum temperature in summer rising up to 41° - 48° C and minimum temperature around 2°- 4° in winter.
	Avg. Annual Rainfall	The average rainfall is about 60 cm per annum.
	Temperatures (December) (Minimum) Temperatures (June) (Maximum)	The climate of the area is semi-arid, with maximum temperature in summer rising up to 41° - 48° C and minimum temperature around 2°- 4° in winter. 2°C. 48 °C.
6.	**Topography**	
	Toposheet number	44J/04

<table>
<tr><td></td><td>Morphology of the Area</td><td>The area forms flat topography and mostly covered by Aeolian sand</td></tr>
<tr><td>7.</td><td>Availability of baseline geoscience data</td><td></td></tr>
<tr><td></td><td>Geological Map (1:50K/ 25K)</td><td>Available 1:50000 scale map</td></tr>
<tr><td></td><td>Geochemical Map

Geophysical Map (Aeromagnetic, ground geophysical, Regional as well as local scale GP maps)</td><td>Not available</td></tr>
<tr><td></td><td>Justification for taking Preliminary Exploration under G4</td><td>A. Justification:
The Ramsara- Amarkot-dalmirKhera Block is being proposed for the G-4 level of exploration between the two boreholes PFSBH-03 and PFSBH-07 to check the continuity of mineralized zone.
The borehole PFSBH-03, located near Ramsara village, Fazilka district of Punjab is approx. 10 Km north from borehole PFSBH-01. The borehole was drilled up to a depth of 798.00m in FS: 2020-21.
The borehole PFSBH-07, located near Dalmir Khera village, Fazilka district of Punjab is approx. 10-11 Km west from borehole PFSBH-03. The borehole was drilled up to a depth of 888.00m in FS: 2022-23. Mineralized zone in PFSBH-07 is as below:
<table>
<tr><th rowspan="2">Borehole No.</th><th rowspan="2">Zoneno.</th><th colspan="2">Depth(m)</th><th rowspan="2">Thickness (m)</th><th rowspan="2">Average Grade K^{+}(%)</th></tr>
<tr><th>From</th><th>To</th></tr>
<tr><td colspan="6">At 2% K cut off</td></tr>
<tr><td rowspan="5">PFSBH-07</td><td>ZoneIIIA</td><td>717.55</td><td>719.35</td><td>1.8</td><td>10.13</td></tr>
<tr><td>ZoneIIC</td><td>746.49</td><td>749.03</td><td>2.54</td><td>5.9</td></tr>
<tr><td>ZoneIIB</td><td>777.1</td><td>787.1</td><td>10</td><td>4.97</td></tr>
<tr><td>ZoneIIA</td><td>789.9</td><td>797.25</td><td>7.35</td><td>2.79</td></tr>
<tr><td>ZoneIA</td><td>812.85</td><td>832.85</td><td>20</td><td>3.02</td></tr>
<tr><td colspan="6">At 5% K cut off</td></tr>
<tr><td rowspan="3">PFSBH-07</td><td>Zone IIIA</td><td>717.55</td><td>719.35</td><td>1.8</td><td>10.11</td></tr>
<tr><td>Zone IIB</td><td>746.49</td><td>749.03</td><td>2.54</td><td>5.91</td></tr>
<tr><td>Zone IIA</td><td>781.35</td><td>784.35</td><td>3</td><td>6.67</td></tr>
<tr><td colspan="6">At 8% K cut off</td></tr>
<tr><td>PFSBH-07</td><td>Zone IIIA</td><td>717.55</td><td>719.35</td><td>1.8</td><td>10.13</td></tr>
</table></td></tr>
</table>

		B. Recommendations of TCC-II 9th meeting: In 9th TCC-II meeting in principle application was approved and the committee agreed for in-principle-approval of the project for G4 stage reconnaissance survey and asked to submit the DPR in 10th TCC-II meeting. **Recommendations of TCC-II 10th meeting:** The committee recommended the proposal for approval of EC.

15. Reconnaissance survey for Potash & Halite in Ramsara -Amarkot -Dalmir- Khera area in Fazilka District, Punjab

Implementing Agency: UEIPL

	Features	Details
	Block ID	RMT Bastar
	Exploration Agency	United Exploration India Pvt. Ltd.
	Commodity	REE, RM, Critical Minerals, Iron, Copper & Gold
	Mineral Belt	The project block is part of Bastar Craton.
	Budget & Time schedule to complete the project	Budget: 5.43 and Timeline: 24 Month
	Objectives	➢ The objective is to Targeting Regional Mineral with the help of predictive geological mapping using geophysical and geological data, regolith characterization, sampling, geochemistry, geochronology, remote sensing, depth-to-basement mapping, field observations, and mineral system studies. ➢ Integrating these datasets will enable the creation of depth models and maps to identify potential mineral exploration zones.
	Whether the work will be carried out by the proposed agency or through outsourcing and details thereof. Components to be outsourced and name of the outsource agency	UEIPL and its associates
	Name/Number of Geoscientists	4 Geologist, 2 Geophysicist and 2 GIS specialist.
	Expected Field days (Geology, Geophysics, Surveyor)	Traverse mapping: 120 days
		Geochemical sampling/ Geophysical study: 120 days
		Drilling: 120 days
1.	**Location**	
	Latitude and Longitude	20°35'8.698" N-20°01'18.285" N and 80°38'6.962" E-80°52'1.214" E
	Villages	Mohla, Dighwadi, Panabaras, Bharritola, Manpur, Kodekurse, Hureli, Kapsi, Chandanpur
	Tehsil/Taluk	Mohla, Manpur, Kanker, Pakhanjur
	District	Uttar Bastar Kanker and Mohla-Manpur-Chowki Districts

	Features	Details
	State	Chhattisgarh
2.	**Area (hectares/ square kilometres)**	
	Block Area	1560 sq.km
	Forest Area	750 sq.km
	Government Land Area	Under progress
	Charagaha	Under progress
	Private Land Area	Under progress
3.	**Accessibility**	
	Nearest Rail Head	Durg (80km)
	Road	NH 930, NH 130D, SH 6, SH 24
	Airport	Swami Vivekananda Airport, Raipur (110 km)
4.	**Hydrography**	
	Local Surface Drainage Pattern (Channels)	Rajghatta Nala, Kondal Nala, Kohka Nala, Hepukasa Nala, Kherkatta Reservoir partly falling with block.
	Rivers/ Streams	Kotri River, Khandi River, Bhurki River
5.	**Climate**	
	Mean Annual Rainfall	The average rainfall recorded in the area varies from 120 cm to 150 cm precipitated between June and September.
	Temperature:	Temperature varies from 10°C in the cold season to 45° in summer month; the maximum temperature recorded being 50°C.
6.	**Topography**	
	Toposheet Number	Part of 64D10, 11, 12, 14, 15 and 16
	Morphology of the Area	Rugged topography with hill ranges trending N 10°E-S 10°W, the rest of the area being a plane country.
7.	**Availability of baseline geoscience data**	
	Geological Map (1:50K/25K)	1:50K map available
	Geochemical Map	NGCM data available for 64 D14
	Geophysical Map (Aeromagnetic, ground geophysical, Regional as well as local scale GP maps)	NGPM data available for 64 D14 and Aeromagnetic data available.
8.	**Justification for taking up the investigation**	Previously exploration activities were focused mainly on surface and near-surface mineral resources, guided by visible surface manifestations. However, The Regional Mineral Targeting (RMT) projects involves integration of all available geoscience data to discover concealed basement mineralization through establishing the probable mineral system.

	Features	Details
		The RMT Bastar was selected based on several criteria, viz. (1) presence of Bimodal Volcanics and unclassified granitic rocks where REE, RM and Critical Minerals have been noted worldwide, (2) Bailadila Group present in the area hold Iron ore deposits (3) Reported incidence of gold and base metal mineralization in the project area.