VOLUME D11
GEOPHYSICAL INVESTIGATION
RESISTIVITY SURVEY

Volume	Km from	Km to	Task	Length	Survey Type
D01	800	1+300	i	0.5	Seismic
D02	27+200	27+500	i	0.3	Seismic
D03	28+400	28+600	i	0.2	Seismic
D04	28+600	29+600	i	1	Resistivity
D05	36+800	37+300	i	0.5	Resistivity
D06	37+300	37+800	i	0.5	Seismic
D07	37+800	38+900	i	1.2	Resistivity
D08	10+200	10+700	iii LLR	0.5	Seismic
D09	300	900	iii	0.6	Resistivity
D10	900	1+300	iii	0.4	Seismic
D11	1+300	2+700	iii	1.4	Resistivity
D12	2+700	3+100	iii	0.4	Seismic
D13	3+100	5+300	iii	3.2	Resistivity
D14	8+500	11+000	iii	2.5	Resistivity
D15	12+000	13+000	iii	1	Resistivity
D16	15+000	18+000	iii	3	Resistivity
D17	20+000	21+000	iii	1	Resistivity
D18	25+200	25+900	iii	0.7	Resistivity
D19	29+500	30+700	iii	1.2	Resistivity
D20	36+400	36+800	iii	0.4	Seismic
D21	38+600	39+300	iii	0.7	Resistivity
D22	39+300	39+700	iii	0.4	Seismic
D23	39+800	41+300	iii	0.5	Resistivity
D24	43+200	43+500	iii	0.3	Seismic
D25	51+700	55+300	iii	3.6	Seismic
D26	68+600	69+800	iii	0.2	Seismic
D27	70+800	71+600	iii	0.8	Resistivity
D28	90+700	91+300	iii	0.6	Seismic
D29	91+800	92+600	iii	0.8	Resistivity
D30	**96+200**	**98+200**	**iii**	**2**	**Resistivity**
D31	1+000	1400	ii	0.4	Seismic
D32	9+000	10+000	ii	1	Seismic
D33	14+500	14+900	ii	0.4	Seismic
D34	20+900	21+600	ii	0.7	Seismic
D35	27+300	27+700	ii	0.4	Seismic
D36	29+500	29+900	ii	0.4	Seismic
D37	32+000	32+400	ii	0.4	Seismic
D38	27+700	29+000	ii	1.3	Resistivity
D39	62+500	64+000	ii	1.5	Seismic
D40	71+000	71+700	ii	0.7	Seismic
D41	73+000	73+400	ii	0.4	Seismic

General Information

Survey Line Parameters

Projected Parameters	Volume name	D30
	Survey type	Resistivity
	Task	iii
	Km from	96+200
	Km to	98+200
	Length (km)	2
Survey Parameters	Length (km)	Three Survey Lines; Total Length: 2.02 D30A (900 m), D30B (700 m) and D13C(400 m)
	Maximum offset from projected line	90 m
	Data acquisition period	05-06.09.2008, 23-24.10.2008
	Weather condition	Hot/Cloudy, Cloudy/Rainy
	Brief terrain description	Flat terrain covered by zones with dense vegetation and agriculture land

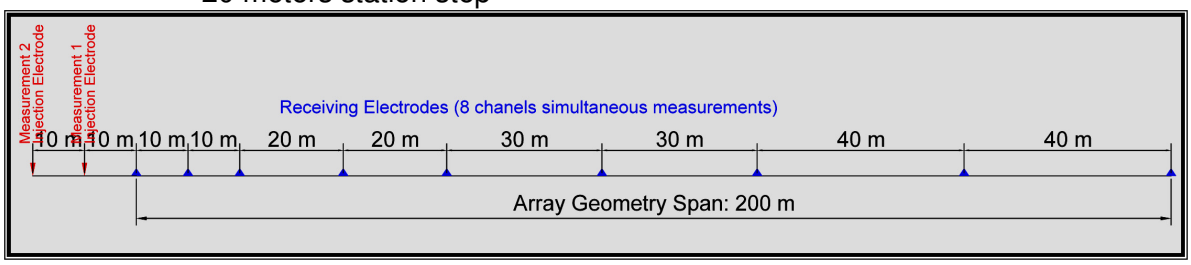
Notes:
- Because of Deva – Bejan – Branisca road this sector was divided into three survey lines
- Maximum offset and line position were constrained by access roads, steep slopes and heavy vegetation

See Annex 30/41 (Survey Line Location and Results)

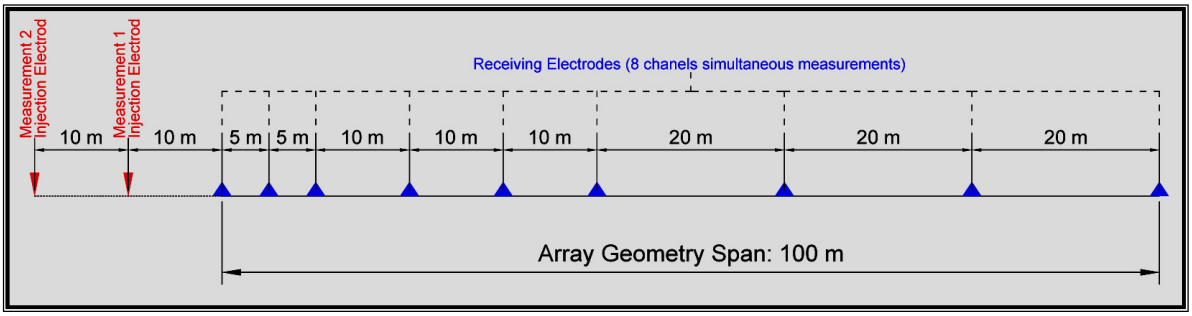
Survey equipment

Data acquisition stage was completed using the following equipment:
- ZONGE, 2.5 kW – IP Transmitter
- SCINTREX IPR 12 – IP Receiver
- Non-polarizable Electrodes

Array geometry for D30A sector: **pole-dipole**
- 16 depth levels resolution
- 80 meters depth of investigation
- 20 meters station step



Array geometry for D30B and D30C sector: **pole-dipole**
- 16 depth levels resolution
- 40 meters depth of investigation
- 20 meters station step



Data Acquisition Parameters

Measurement Parameters

Input signal: square wave (4s I+, 4s 0, 4s I-, 4s 0).

Additional chargeability measurements were recorded over 340-520 ms window span.

Quality Control

To insure reliability of acquired data several stages for quality control were applied to data processing workflow:

- Each measurement was averaged at over five cycles.
- To insure repeatability and reliability, up to 5% out of total measurements were repeated in the same station point;
- Quality control was applied in each stage of the processing workflow using specific programs and routines to filter any abnormalities found within raw data

Results

Results were organized as follows:

1. Three Longitudinal Sections (*See. Annex 30/41*) covering all volume length containing:
    a. *Inverted Resistivity and Chargeability* (Vertical and Horizontal Scale 1 : 1000)
    b. Plan location of Survey Line and Projected Volume (Scale 1 : 5000)
    c. Interpretation of physical parameters distribution
2. Raw data available in several suitable formats
3. Topographic data for each measurement location
4. Inverted Result Data in suitable formats (easy to integrate into any follow up workflow).

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