Test de diagnóstico ABEM Terrameter LS

El ABEM Terrameter LS[1] es un avanzado sistema de adquisición de datos para mediciones de auto potencial (self potential SP), resistividad, y polarización inducida en dominio del tiempo (IP). El instrumento ha sido cuidadosamente revisado en todas las etapas de producción y ha sido probado extensivamente antes de salir de la fábrica. La Calibración del Instrumento es realizada en la fábrica antes de la entrega, por lo tanto, los usuarios no tienen necesidad de acceder a esta instancia, si el test de diagnóstico del equipo al iniciar la medición se encuentra bien. El proveerá de muchos años de servicio satisfactorio si su manejo y cuido se realiza de acuerdo a las instrucciones dadas en el manual.

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[1] LS puede leerse como una abreviatura de Lund system, por lo que está construido con el modelo de Lund Imaging System.

A continuación, se ejecuta el test de diagnostico.

Filename: /media/sda1/Selftest_1-2021-10-08-072352
Instrument serial number: LS216060358
Instrument SW version: 1.15.4(2662)
Date and time: 2021-10-08 07:23:54
Project name: S
Task name: Selftest_7-2021-10-08
Spread file: /home/root/protocols/LSInside.xml
Protocol file: /home/root/protocols/selftest.xml
Base station: 0.000,0.000,0.000
Sub array code: 0
Measurement mode: resistance dV resistance SP
Has IP measurements: no
Smallest electrode spacing: 10.00

Acquirement settings in use from time 2021-10-08 07:23:54:
- AGC_TimeSec: 0.060000
- Acq_DelaySec: 0.300000
- Acq_TimeSec: 0.500000
- AutoStack: 1
- BaseFreqHz: 60.000000
- BoreholeStepDown: 1
- BoreholeStepUp: 1
- CurrentLimitHighAmpere: 0.500000
- CurrentLimitLowAmpere: 0.002000
- DoInitialAGC: 0
- ElectrodeResistanceBadLimitHighOhm: 300000.000000
- ElectrodeResistanceBadLimitLowOhm: 10000.000000
- ElectrodeTest: 0
- ElectrodeTestCurrentAmpere: 0.001000
- ErrorLimit: 0.010000
- Fullwaveform: 0
- IPSP_TimeSec: 0.500000
- IP_MinOffTimeSec: 0.500000
- IP_OffTimeSec: 0.200000
- IP_WindowSecList: 0.01 0.02 0.02
- LogFluidResistivity: 1
- LogLateral18foot: 1
- LogLongNormal: 1
- LogSelfPotential: 2
- LogShortNormal: 1
- LogTemperature: 2
- MarginLimitHigh: 1.100000
- MeasureMode: 2
- Measure_SNR: 0
- PowerLimitHighWatt: 150.000000
- PowerLimitLowWatt: 0.000000
- PowerLossLimitHighWatt: 25.000000
- SNR_TimeSec: 0.020000
- SP_TimeSec: 1.000000
- SampleRateHz: 1000.000000
- StackLimitsHigh: 2
- StackLimitsLow: 1
- StackNorm: 0
- VoltageLimitHighVolt: 400.000000
- VoltageLimitLowVolt: 0.000000

N Time MeasID Seq# DPID Channel A(x) A(y) A(z) B(x) B(y) B(z) M(x) M(y) M(z) N(x) N(y) N(z) F(x) F(y) F(z) Note I(mA) Vout(V) Voltage(V) SP(V) R(Ohm) Var(%) Cycles Ready? Pint(V) Pext(V) Temp(C) Latitude Longitude Pos.Quality

1 2021-10-15 23:20:22 11 0 61 1 0.0 0.0 0.0 0.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 155.0 0.0 0.0 ZERO 0 0 0 2.06039e-05 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

2 2021-10-15 23:20:22 11 0 61 2 0.0 0.0 0.0 0.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 155.0 0.0 0.0 ZERO 0 0 0 -9.06529e-06 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

3 2021-10-15 23:20:22 11 0 61 3 0.0 0.0 0.0 0.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 155.0 0.0 0.0 ZERO 0 0 0 -2.11225e-05 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

4 2021-10-15 23:20:22 11 0 61 4 0.0 0.0 0.0 0.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 155.0 0.0 0.0 ZERO 0 0 0 7.23153e-06 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

5 2021-10-15 23:20:03 5 0 62 1 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25508 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

6 2021-10-15 23:20:03 5 0 62 2 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.24735 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

7 2021-10-15 23:20:03 5 0 62 3 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.2462 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

8 2021-10-15 23:20:03 5 0 62 4 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25069 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

9 2021-10-15 23:19:47 1 0 63 1 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25288 0 0.0 2 1 0.0 12.4 45.1 0.000000 0.000000 1

10 2021-10-15 23:19:47 1 0 63 2 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25276 0 0.0 2 1 0.0 12.4 45.1 0.000000 0.000000 1

11 2021-10-15 23:19:47 1 0 63 3 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25282 0 0.0 2 1 0.0 12.4 45.1 0.000000 0.000000 1

12 2021-10-15 23:19:47 1 0 63 4 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25285 0 0.0 2 1 0.0 12.4 45.1 0.000000 0.000000 1

13 2021-10-15 23:19:58 3 0 64 1 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25291 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

14 2021-10-15 23:19:58 3 0 64 2 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.2526 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

15 2021-10-15 23:19:58 3 0 64 3 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25273 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

16 2021-10-15 23:19:58 3 0 64 4 0.0 0.0 0.0 0.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 157.5 0.0 0.0 -1.25 REFERENCE 0 0 0 -1.25281 0 0.0 2 1 0.0 12.3 45.2 0.000000 0.000000 1

17 2021-10-15 23:20:15 9 0 69 1 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REF 0 0 0 -4.09192 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

18 2021-10-15 23:20:15 9 0 69 2 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REF 0 0 0 -4.0851 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

19 2021-10-15 23:20:15 9 0 69 3 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REF 0 0 0 -4.0837 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

20 2021-10-15 23:20:15 9 0 69 4 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REF 0 0 0 -4.08752 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

21 2021-10-15 23:20:18 10 0 70 1 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REF 0 0 0 4.08395 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

22 2021-10-15 23:20:18 10 0 70 2 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REF 0 0 0 4.08944 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

23 2021-10-15 23:20:18 10 0 70 3 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REF 0 0 0 4.08967 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

24 2021-10-15 23:20:18 10 0 70 4 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REF 0 0 0 4.08767 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1

25 2021-10-15 23:20:09 7 0 74 1 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REFERENCE 0 0 0 -4.09663 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1

26 2021-10-15 23:20:09 7 0 74 2 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REFE

RENCE 0 0 0 -4.09576 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
27 2021-10-15 23:20:09 7 0 74 3 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REFE
RENCE 0 0 0 -4.09635 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
28 2021-10-15 23:20:09 7 0 74 4 310.0 0.0 0.0 320.0 0.0 0.0 160.0 0.0 0.0 150.0 0.0 0.0 235.0 0.0 40.0 -4.096 REFE
RENCE 0 0 0 -4.09655 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
29 2021-10-15 23:20:13 8 0 75 1 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REFE
RENCE 0 0 0 4.09647 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
30 2021-10-15 23:20:13 8 0 75 2 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REFE
RENCE 0 0 0 4.09586 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
31 2021-10-15 23:20:13 8 0 75 3 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REFE
RENCE 0 0 0 4.0964 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
32 2021-10-15 23:20:13 8 0 75 4 310.0 0.0 0.0 320.0 0.0 0.0 150.0 0.0 0.0 160.0 0.0 0.0 235.0 0.0 40.0 4.096 REFE
RENCE 0 0 0 4.09639 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
33 2021-10-15 23:20:27 13 0 68 1 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
0.00419387 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
34 2021-10-15 23:20:27 13 0 68 2 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
-0.00214452 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
35 2021-10-15 23:20:27 13 0 68 3 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
-0.00259591 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
36 2021-10-15 23:20:27 13 0 68 4 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
0.000150288 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
37 2021-10-15 23:20:24 12 0 73 1 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
4.96648e-05 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
38 2021-10-15 23:20:24 12 0 73 2 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
-8.4773e-06 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
39 2021-10-15 23:20:24 12 0 73 3 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
-3.76041e-05 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
40 2021-10-15 23:20:24 12 0 73 4 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 310.0 0.0 0.0 312.5 0.0 0.0 ZERO 0 0 0
1.68496e-05 0 0.0 2 1 0.0 12.3 45.4 0.000000 0.000000 1
41 2021-10-15 23:20:35 15 0 65 1 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 315.0 0.0 0.0 Board2/1.5
Ohm/10W 493.793 1.24893 0.83586 0 1.69273 0.0 1 1 0.0 12.3 45.3 0.000000 0.000000 1
42 2021-10-15 23:20:35 15 0 65 2 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 315.0 0.0 0.0 Board2/1.5
Ohm/10W 493.793 1.24893 0.828576 0 1.67798 0.0 1 1 0.0 12.3 45.3 0.000000 0.000000 1
43 2021-10-15 23:20:35 15 0 65 3 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 315.0 0.0 0.0 Board2/1.5
Ohm/10W 493.793 1.24893 0.829042 0 1.67893 0.0 1 1 0.0 12.3 45.3 0.000000 0.000000 1
44 2021-10-15 23:20:35 15 0 65 4 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 315.0 0.0 0.0 Board2/1.5
Ohm/10W 493.793 1.24893 0.829 0 1.67884 0.0 1 1 0.0 12.3 45.3 0.000000 0.000000 1
45 2021-10-15 23:20:29 14 0 66 1 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 Board2/33K
Ohm/10W 12.4129 411.083 411.088 0 33117.9 0.0 1 1 0.0 12.3 45.6 0.000000 0.000000 1
46 2021-10-15 23:20:29 14 0 66 2 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 Board2/33K
Ohm/10W 12.4129 411.083 411.085 0 33117.6 0.0 1 1 0.0 12.3 45.6 0.000000 0.000000 1
47 2021-10-15 23:20:29 14 0 66 3 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 Board2/33K
Ohm/10W 12.4129 411.083 411.092 0 33118.2 0.0 1 1 0.0 12.3 45.6 0.000000 0.000000 1
48 2021-10-15 23:20:29 14 0 66 4 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 Board2/33K
Ohm/10W 12.4129 411.083 411.078 0 33117.1 0.0 1 1 0.0 12.3 45.6 0.000000 0.000000 1
49 2021-10-15 23:20:07 6 0 67 1 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.24601 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
50 2021-10-15 23:20:07 6 0 67 2 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25226 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
51 2021-10-15 23:20:07 6 0 67 3 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25491 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
52 2021-10-15 23:20:07 6 0 67 4 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25021 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
53 2021-10-15 23:19:55 2 0 71 1 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25263 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1

54 2021-10-15 23:19:55 2 0 71 2 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.2528 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
55 2021-10-15 23:19:55 2 0 71 3 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25273 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
56 2021-10-15 23:19:55 2 0 71 4 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25274 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
57 2021-10-15 23:20:00 4 0 72 1 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25278 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
58 2021-10-15 23:20:00 4 0 72 2 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25264 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
59 2021-10-15 23:20:00 4 0 72 3 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.2528 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1
60 2021-10-15 23:20:00 4 0 72 4 310.0 0.0 0.0 320.0 0.0 0.0 310.0 0.0 0.0 320.0 0.0 0.0 315.0 0.0 0.0 1.25 REFERE
NCE 0 0 0 1.25279 0 0.0 2 1 0.0 12.3 45.3 0.000000 0.000000 1

Electrode test result:
Measured resistans is an estimated maximal electrode resistance:
X Y Z Estimatet max resistance Test current Status User

Measurement log:
Time Latitude Longitude Pos.Quality Source Type MeasID Description
2021-10-08 07:19:39 0.000000 0.000000 1 User -1 Created a new station at 0;0;0

2021-10-08 07:19:46 0.000000 0.000000 1 Instrument -1 Measuring Started. (15 data points requested.)
2021-10-08 07:20:41 0.000000 0.000000 1 Instrument 15 Measuring done
2021-10-08 07:20:41 0.000000 0.000000 1 Instrument 15 Test Ok