

APPENDICES

APPENDIX 1 Model parameter for data processing with Gradix program

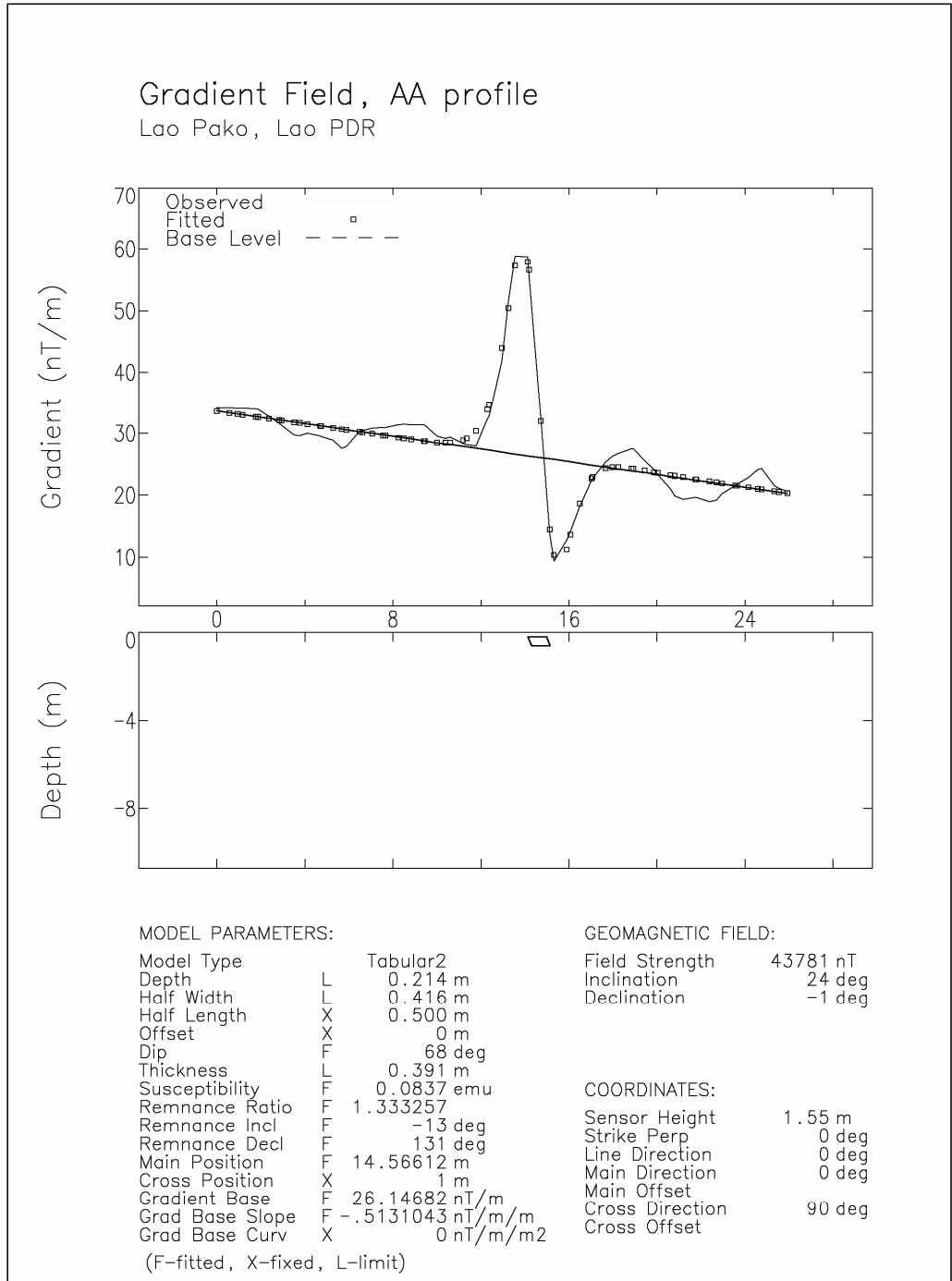
SUB-AREAS A

Remove wow below : 50.23 Mhz
 Highpass Filter: 79 points
 Set time Zero to sample: 21
 Remove Background
 Static operator: 115 points around trace
 Remove Background
 Time Gate: 0.00 to 308.64 ns
 Banwith: 50.23 to 500.41 MHz
 Threshold: 96
 Weight: 0.5
 Butterward Bandpass Filter:
 52/24- 500/24
 Zero Phase
 512 point ; No taper

SUB-AREAS B

Remove wow below : 52.09 Mhz
 Highpass Filter: 79 points
 Set time Zero to sample: 36
 Remove Background
 Static operator: 110 points around trace
 Remove Background
 Time Gate: 0.00 to 308.64 ns
 Banwith: 48.37 to 533.89 MHz
 Threshold: 96
 Weight: 0.5
 Butterward Bandpass Filter:
 52/24- 500/24
 Zero Phase
 512 point ; No taper

APPENDIX 2 Geosoft magnetic modeling result



APPENDIX 3 Velocity analysis by hyperbola fitting sub-area A

Line number	Velocity (m/μs)	Two-way Time (μs)	Distance (m)
A-00	146.1	17.92	0.5
A-01	109.9	15.2	1.8
A-01	153.1	17.92	9.7
A-02	95.7	17.6	6.8
A-02	111.6	22.4	7.6
A-02	94.2	16	9
A-04	125.7	16	3.1
A-05	127.8	12.8	21.5
A-08	143.5	17.6	1.2
A-08	120.4	17.6	4
A-11	125.4	20.65	1.5
A-11	129.8	19.08	7.5
A-12	119.4	14.4	16.6
A-12	108	19.2	11
A-14	145.3	17.6	6
A-15	122.3	16	6.5
A-28	139.7	19.2	1.6
A-28	138.9	9.6	8.2

Statistic Results

Statistic Details	Value
Number of values	18.0
Sum	2256.8
Minimum	94.2
Maximum	153.1
Mean	125.4
Median	125.6
Standard erro	4.0
95% confidence interval	8.5
Standard deviation	17.1

APPENDIX 4 Velocity analysis by hyperbola fitting for sub-area B

Line number	Velocity (m/μs)	Two-way Time (μs)	Distance (m)
B-00	147.1	12.8	0.8
B-02	117.94	17.6	7.8
B-02	103.94	28.8	21.0
B-15	127.99	25.6	1.4
B-15	137.99	24.0	4.5
B-15	123.36	16.0	10.0
B-16	113.64	17.6.0	12.5
B-17	102	17.6	6.1
B-17	93.97	41.6	14.5
B-25	116	30.4	16.2
B-25	125	19.2	12.5
B-26	125.18	14.4	8.2
B-26	124.11	16.0	12.5
B-26	130.97	16.0	14.5

Statistic Results

Statistic Details	Value
Number of values	14.0
Sum	1689.2
Minimum	94.0
Maximum	147.1
Mean	120.7
Median	123.7
Standard error	3.8
95% confidence interval	8.2
Standard deviation	14.2

APPENDIX 5 Lao Pako 1995-2003 find list**T14**

Material	Object description	pcs	Size (mm)	Weight (g)
Bone	two pieces of burnt bone	2	20 x 10	1
Glass	Tiny glass bead of opac orange	1	2 x 1	1
Metal	Bronze banle, with a rounded transection and no decoration, child size.	1	45 x 37	15
Metal	Small iron object, function unknown.	1	20 x 12	1
Metallurgy	Tuyère fragment, end piece	1	39 x 30	4
Metallurgy	Tuyère fragment?	8	35 x 30	8
Metallurgy	Fragment of tuyère	1	30 x 29	12
Metallurgy	Tuyère fragment	1	50 x 34	26
Stone	Polished axe of greenish-white lime (?) - Stone. The edge broken, and some parts look quite crude. Doesn't appear to be very functional. Doesn't appear to be very functional.	1	54 x 45	53
Stone	Flat round smooth stone, with traces of oxide. No wear marks.	1	110 x 98	415
Stone	Almost square piece of sandstone with a smooth surface. Possibly a fragment of whetstone	1	45 x 43	45
Textile	Spindle whorl without central hole, no decoration.	1	30 x 23	5
Textile	Spindle whorl, no decoration.	1	40 x 25	8
Textile	Spindle whorl with a flat but rounded shape. Flattened around the hole on one side. Hole diameter 4 mm. Red sand tempered ware.	1	33 x 19	27
Textile	Spindle whorl, broken on one side	1	40 x 30	8

T20

Material	Object description	pcs	Size (mm)	Weight (g)
Bone	Small fragments of burnt bone.	4	25 x 18	1
Bone	Small pieces of burnt bone	4	11 x 9	1
Metal	Small flat iron object. Corroded	1	30 x 15	1
Pottery	Big rim piece of a jar, very heavy. Coarse sand tempered ware with red slip.	1	210 x 90	965

T21

Material	Object description	pcs	Size (mm)	Weight (g)
Bone	Fragments of burnt bone.	1	39 x 11	1
Metallurgy	Tuyère fragment	1	35 x 12	5
Metallurgy	Conglomerate of white stone (quartzite, sandstone), slag and iron.	1	100 x 58	140
Metallurgy	Conglomerate of quartzite, sandstone and iron slag (?).	1	63 x 61	97
Pottery	Unidentified sherd sections. May be part of a seal.	3	45 x 20	8
Textile	Conical shape, double star or flower pattern in relief. The inner star has nine rays, outer 14.	1	30 x 30	4
Textile	Spindle whorl, with central hole. No decoration	1	19 x 34	4
Textile	Spindle whorl, no decoration	1	35 x 25	5

T22

Material	Object description	pcs	Size (mm)	Weight (g)
Bone	Burnt bone	6	9 x 5	2
Bone	Burnt bone	8	15 x 11	2
Bone	Fragment of burnt bone.	7	15 x 12	2
Bone	Small piece of burnt bone.	3	25 x 15	5
Bone	Burnt bone, big pieces		20 x 10	1
Bone	Piece of burnt bone	3	16 x 12	1
Metal	Small corroded rod-like object of iron.	1	30 x 13	3
Metallurgy	Tuyère fragment	2	50 x 45	25
Metallurgy	Tuyère fragment	1	35 x 19	10
Metallurgy	Tuyère fragment (end). Look almost unused	1	36 x 30	5
Metallurgy	Base of a crucible (?), with very thin walls. Pointed shape and grog temperd ware.	1	45 x 30	12
Metallurgy	May be wall of crucible.	1	37 x 30	7
Pottery	Piece of pottery, slightly warped, as being a next piece of a jar. Black crude ware with a large incised geometrical decoration.	1	880 x 670	137
Stone	Part of shape and polished stone axe (?) in green- whitish sandstone. Only neck part remains	1	42 x 33	65

Stone	Flake of stone, no clear usage marks.	1	58 x 32	25
Textile	Stamp roller, cylindrical , 33 mm long and diameter 22 mm, with 6 rigges marking striped pattern. The hole goes all the way through. Made of dark grey clay	4	33 x 22	15
Textile	Half of a spindle whorl, crude ware, whitish on one side and black (burnt?) on the other, as well as on the fracture. May have been in a hearth	1	38 x 19	13
Textile	Half of a spindle whorl, split along its circumference	1	37 x 18	18
Textile	Spindle whorl, complete with burnished (?) ware	1	31 x 20	17
Textile	Half of spindle whorl, black ware, precise shape	1	38 x 22	13

T28

Material	Object description	pcs	Size (mm)	Weight (g)
Bone	Two pieces of burnt bone with spongiosa	2	21 x 18	5
Bone	Small fragment of burnt bones	2	5 x 3	1
Bone	Small fragment of burnt bones	2	9 x 4	1
Bone	Three pieces of burnt bone	3	11 x 7	1
Bone	Small pipe-like object, possibly unburnt bone preserved by iron corrosion	1	12 x 15	1
Bone	Small fragment of burnt white bones	9	9 x 4	2
Bone	Fragment of unburnt bone- very soft and Fragile. Often just a fiber-like yellowish Structure.	-	-	25
Bone	Two fragile pcs of unburnt bone, one with max diameter of 7 mm , and the other 4.5 mm. probably piece of a radius and ulna of very young child.	2	40 x 5	
Bone	Pieces of unburnt flat bone, cranial? One rough edge could be sturus on a very young child's cranium. Very fragile, has a piece of earth attached to it.	1	49 x 35	17
Bone	Big piece of burnt bone, flat with clear shape/structure. Disc?	1	23 x 18	2
Glass	Beads, dark blue (glass-167 pcs) and red/orange lass-15 pcs. Blue beads have	182	1120 x 2	12

	cylindrical shape with tiny hole, red are rounded.			
Glass	Small fragments of green glass Glass beads (3 pcs). Two flat and cylindrical and one bigger biconical. Hole diameter 3-4 mm. A green glass.	6	6 x 6	2
Metal	Small piece of iron, badly corroded	3	14 x 14	6
Metal	Two pieces of iron	1	30 x 13	6
Metal	Small piece of iron	2	25 x 15	8
Metal	Fragment of finger ring of bronze.	1	35 x 13	5
Metal	Small piece of iron, badly corroded	6	17 x 2	2
Metal	Helix shaped finger ring made of bronze, Fragmentary. Inner diameter 16 mm. Average thickness of the 'band' 0.7 mm, and width c.2.8 mm. makes altogether 4.5 rounds.	8	8 x 5	2
Metal	Two pcs of bronze bracelets, child size. Oval shape with opening and incised cross-and line decorations.	4	17 x 2	4
Metal	Rust colored lump with bone? Probably unburnt bone that has been preserved by a piece of corroding iron.	2	38 x 30	20
Metal	Two pcs of burnt bronze bracelets, child size. Overl shape with opening and icised cross-and line decoration.	3	50 x 28	25
Metal	Bronze anklets, 8 pcs divided into two groups of 4 rings each. All with a diameter Of 50 mm, 1.5 mm thick.	2	37 x 29	20
Metal	Small rust colored lump with bone structure. Probably a piece of iron that has preserved a piece of unburnt bone.	2	30 x 17	5
Metal	Small cored pieced piece of iron, possibly with bone attached to it	1	38 x 10	5
Metal	Rust colored lump with bone? Probably unburnt bone that has been preserved by a piece of corroding iron. The 'pipe' have diameter of 11 and 9 mm	1	75 x 35	50

T35

Material	Object description	pcs	Size (mm)	Weight (g)
Metal	Copper/bronze object or ore, badly corroded	2	19 x 14	7
Metal	Iron object, nail? Partly corroded	1	35 x 2	2
Stone	Small scraper, oval shaped.	1	47 x 31	10

T36

Material	Object description	pcs	Size (mm)	Weight (g)
Bone	Small pieces of burnt bone.	3	2 x 1	1
Metal	Unidentified iron object. Recent?	1	39 x 42	35
Metallurgy	Fragment of tuyère	1	48 x 24	17
Metallurgy	Small tuyère fragments of whitish clay	15	-	207
Metallurgy	Fragment of tuyère with lump of slag attached.	1	50 x 30	65
Other	Bead? of clay, orange colour (possibly a sink).	1	29 x 13	5
Pottery	Unidentified knob-like earthenware (Laterite tempered) object	1	49 x 34	70