

DAFTAR PUSTAKA

- Arifin, L., & Naibaho, T. (2016). Struktur Geologi Di Perairan Pulau Buton Selatan. *Jurnal Geologi Kelautan*, 13(3), 143. <https://doi.org/10.32693/jgk.13.3.2015.269>
- Anwar Yamin Dkk (2012) Perkiraan Sumberdaya Asbuton Dengan Pendekatan Interpolasi Kernel Pada Nilai Tahanan Jenis (The Estimation Of Asbuton Source With Kernel Interpolation Approach On Resistivity Values Type)
- Badan Pusat Statistik Sulawesi Tenggara. 2009a. Sulawesi Tenggara Dalam Angka Tahun 2009. Sulawesi: BPS Propinsi Sulawesi Tenggara.
- Badan Pusat Statistik. 2009b. Kabupaten Buton Dalam Angka Tahun 2009. Buton: Badan Pusat Statistik. Kabupaten Buton.
- Bina Marga, 2007, “bahan aspal dan asbuton untuk perkerasan jalan”, Departemen Pekerjaan Umum, Direktorat Jenderal Bina Marga. Letellier, M. dan Budzinski, H. 1999. *Microwave Assisted Extraction of Organic Compound*. Analisis.
- Dr. John W. Kramers, P.Geol (1989) “IBRD HIGHWAY MAINTENANCE BETTERMENT PROJECT A FEASIBILITY STUDY FOR REFINING OF ASBUTON”
- Dr. Ir. W.H Hetzel (1993) “Penyelidikan Terjadinya Batuan Aspal di Pulau Buton”
- Davidson, J.W., 1991. The geology and prospectivity of Buton Island, Southeast Sulawesi, Indonesia. Indonesian Petroleum Association, Proceedings 20th Annual Convention, pp. 209–234.
- Hadiwisastra, S. 2009. Kondisi Aspal Alam dalam Cekungan Buton. *Jurnal Riset Geologi dan Pertambangan* Jilid 19 No. 1, 49-57 (1936).
- Hall, R. 2012. Late Jurassic–Cenozoic reconstructions of the Indonesian region and the Indian Ocean. *Tectonophysics* 570–571, 1–41
- Hamilton, W. 1979. Tectonics of the Indonesian region. U.S.G.S. Prof. Paper, 1078, 345pp.
- Hamzah, M. 2001. Eksplorasi Aspal Batu Buton (Asbuton) dengan Metode Geolistrik. Thesis. Jurusan Teknik Geofisika ITB, Bandung.
- Hiersche, E.U. 1986. Wearing Coarse on European Runways and Taxway, the first utural Asphalt Congress, Trinidad Lake Asphalt.
- adinata, R. (1995) Kuliah tamu yang diadakan di Jurusan Geologi, ikultasTeknologi Mineral, ITB, Bandung, untuk kalangan terbatas.



- Purnomo, I. (2016). Analisis Kadar Asbuton Tambang Winto dengan Cara Ekstraksi menggunakan Metode Sokhlet di PT WIJAYAKARYA BUTON. Buton: Intan Purnomo.
- Rosyid, A. 1998. Pertambangan Aspal Alam Pulau Buton. Bandung: PPTM.
- Satyana, A.H., Irawan, C., Kurniawan, W. 2013. Revisit Geology and Geochemistry of Buton Asphalt Deposits, SE Sulawesi: Implication for Petroleum Exploration of Buton Area. Jakarta: Proceeding IPA 37th.
- Sikumbang, N., Sanyoto, P., Supandjono, R.J.B., Gafoer, S., 1995. Peta Geologi Lembar Buton, Sulawesi, skala 1:250.000. Pusat Penelitian dan Pengembangan Geologi, Bandung
- Siswosoebrotho, B. I., Kusnianti, N., & Tumewu, W. 2005. Laboratory evaluation of Lawele Buton Natural Asphalt in asphalt concrete mixture. Proc: Eastern Asia Society for Transportation Studies, Vol. 5, pp 857 – 867.
- SNI 2436:2008, Tata Cara Pencatatan Dan Identifikasi Hasil Pengeboran Inti, Badan Standarisasi Nasional.
- SNI 4726:2011, Pedoman pelaporan, sumberdaya, dan cadangan mineral, Badan Standarisasi Nasional.
- Surono, 2010. Geologi Lengan Tenggara Sulawesi, Publikasi Khusus, Badan Geologi, KESDM, Bandung.
- Sukirman, Silvia. 2003. Beton Aspal Campuran Panas. Grafika Yuana Marga : Bandung.
- Suryana, A. , Tobing, S.M., 2002. Inventarisasi Endapan Bitumen Padat dengan Outcrop Drilling di Daerah Buton Selatan, Kabupaten Buton, Provinsi Sulawesi Tenggara, Sub Dit Batubara. DIM. Bandung.
- Tobing, M.S., 2005. Prospek Bitumen Padat Pulau Buton, Propinsi Sulawesi Tenggara, Kolokium Hasil Lapangan, Sub Dit Batubara Direktorat Inventarisasi Mineral, Bandung.
- Tamrin. 2016. Analisis Kadar Air dan Kadar Bitumen aspal buton (Asbuton) Desa Bungi dengan Metode Sokhlet. Makassar: repositori.uin-alauddin.
- Taslim, dkk. 2016. Ekstraksi Minyak Dari Biji Kurma (Phoenix Dactylifera L.) Dengan Metode Soxhlet Extraction Dengan Menggunakan Etil Asetat. Sumatera Utara: Universitas Sumatera Utara.
- Sudrajat, D.J dan Nurhasbi. 2007. Pengembangan Standar Pengujian Kadar Air dan Perkecambahan Benih Beberapa Jenis Tanaman Hutan untuk menunjang Progam Penanaman Hutan di Daerah. Balai Penelitian Teknologi Perbenihan. Bogor. Vol. 2 No. 1, Hal. 5.



Watkinson, I.M., Hall, R., and Ferdian, F., 2011. Tectonic re-Interpretation of Banggai-SulaMolucca Sea Margin, Indonesia, The SE Asian Gateway: History and Tectonic of The Australia-Asia Collision. *Geological Societ, London*, Special Publication.

Yusran DKK (2017) “Estimasi Cadangan Asbuton Menggunakan Block Model Berdasrkan Penaksiran Kriging Pada Pt. Wijaya Karya Bitumen Kecamatan Pasarwajo, Kabupaten Buton, Provinsi Sulawesi Tenggara”.



LAMPIRAN

Lampiran 1. Tabel Hasil Laboratorium Blok Lawele

Lampiran 2. Tabel Hasil Laboratorium Blok Pasarwajo

Lampiran 3. Tabel *Fracture* Blok Lawele

Lampiran 4. Tabel *Fracture* Blok Pasarwajo

Lampiran 5. Peta Geologi Regional Buton

Lampiran 6. Peta dan Sayatan A-B Blok Lawele

Lampiran 7. Titik Bor Blok Lawele

Lampiran 8. Model Geometri I Blok Lawele

Lampiran 9. Model Geometri II Blok Lawele

Lampiran 10. Peta dan Sayatan A-B Blok Pasarwajo

Lampiran 11. Titik Bor Blok Pasarwajo



Lampiran 12. Model Geometri I Blok Pasarwajo

Lampiran 13. Model Geometri II Blok Pasarwajo

Lampiran 1. Tabel Hasil Laboratorium Blok Lawele

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-01	16,90	18,20	1,30	21,33	17,80	24,96%	11,48%
2		18,20	19,80	1,60	9,49	10,80		
3		19,80	21,30	1,50	25,33	11,40		
4		21,30	22,80	1,50	21,91	12,20		
5		22,80	24,40	1,60	24,57	13,80		
6		24,40	25,50	1,10	25,9	5,60		
7		25,50	27,00	1,50	28,5	3,90		
8		27,00	28,60	1,60	21,72	7,20		
9		28,60	30,20	1,60	26,09	8,40		
10		30,20	31,10	0,90	30,2	5,60		
11		31,10	32,70	1,60	38,29	10,40		
12		32,70	33,70	1,00	26,63	13,00		
13		33,70	34,60	0,90	30,47	11,10		
14		34,60	35,70	1,10	25,01	12,40		
15		35,70	37,20	1,50	28,28	12,20		
16		37,20	37,90	0,70	23,7	17,80		
17		37,90	39,50	1,60	23,82	18,40		
18		39,50	40,70	1,20	25,31	15,60		
19		40,70	42,20	1,50	29,18	19,00		
20		42,20	42,70	0,50	13,47	3,00		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-02	51,40	52,80	1,40	19,32	13,00	25,50%	16,50%
2		52,80	54,40	1,60	22,26	14,80		
3		54,40	55,40	1,00	27,69	16,00		
4		55,40	56,30	0,90	27,35	18,40		
5		56,30	57,90	1,60	26,18	19,00		
6		57,90	59,50	1,60	25,14	22,6		
7		59,50	61,10	1,60	28,16	16,80		
8		61,10	62,70	1,60	26,27	17,00		
9		62,70	64,30	1,60	20,97	9,2		
10		64,30	65,90	1,60	25,31	19,4		
11		65,90	67,50	1,60	28,3	17,6		
12		67,50	69,10	1,60	27,51	16,8		
13		69,10	70,70	1,60	28,37	16,40		
14		70,70	72,30	1,60	26,92	17,20		
15		72,30	73,90	1,60	33,09	12,00		
16		73,90	75,50	1,60	24,38	15,20		
17		75,50	77,10	1,60	19,24	19,40		
18		77,10	78,60	1,50	22,97	14,60		
19		78,60	80,10	1,50	25,17	17,6		



No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-05	18,00	19,30	1,30	20,62	15,20	28,36%	12,46%
2		19,30	20,90	1,60	22,77	15,20		
3		20,90	22,50	1,60	23,95	13,60		
4		22,50	24,10	1,60	31,11	13,20		
5		24,10	25,70	1,60	31,47	12,80		
6		25,70	27,30	1,60	30,76	12,00		
7		27,30	28,90	1,60	33,04	9,60		
8		28,90	30,50	1,60	34,45	11,00		
9		30,50	32,10	1,60	33,7	9,00		
10		32,10	33,20	1,10	21,75	13,00		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-06	41,80	42,70	0,90	16,93	23,00	22,74%	11,80%
2		55,50	56,20	0,70	14,76	18,10		
3		56,20	56,70	0,50	13,97	13,80		
4		56,70	57,70	1,00	21,42	11,00		
5		57,70	58,50	0,80	21,74	14,40		
6		58,50	60,10	1,60	24,39	13,00		
7		60,10	61,70	1,60	22,86	15,00		
8		61,70	63,30	1,60	21,09	15,20		
9		63,30	64,90	1,60	23,58	13,00		
10		64,90	66,50	1,60	21,82	11,00		
11		66,50	68,00	1,50	26,4	12,00		
12		68,00	69,60	1,60	30,78	11,60		
13		69,60	71,20	1,60	30,34	10,00		
14		71,20	72,20	1,00	30,82	13,00		
15		72,20	73,80	1,60	31,43	14,40		
16		73,80	75,40	1,60	28,76	10,20		
17		75,40	76,70	1,30	21,35	9,00		
18		76,70	78,20	1,50	20,15	10,80		
19		78,20	79,80	1,60	20,54	12,80		
20		79,80	81,40	1,60	21,33	8,80		
21		81,40	82,80	1,40	26,35	4,60		
22		82,80	84,40	1,60	18,89	4,60		
23		84,40	86,00	1,60	17,06	7,80		
		86,00	87,60	1,60	23,84	13,60		
		87,60	89,20	1,60	20,42	21,40		
		89,20	90,80	1,60	18,62	14,40		
		90,80	92,40	1,60	22,89	3,60		
		92,40	94,00	1,60	28,38	3,20		
		94,00	95,50	1,50	27,00	8,60		



30		95,50	97,00	1,50	27,71	9,40		
31		97,00	98,50	1,50	20,85	3,20		
32		98,50	99,00	0,50	11,32	23,20		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-07	47,30	47,70	0,40	23,57	20,00	27,01%	15,69%
2		47,70	49,30	1,60	30,94	16,00		
3		49,30	50,90	1,60	28,36	16,60		
4		50,90	52,50	1,60	30,20	15,40		
5		52,50	54,10	1,60	29,39	17,00		
6		54,10	55,70	1,60	30,01	15,00		
7		55,70	56,80	1,10	26,75	19,60		
8		56,80	58,40	1,60	19,66	10,60		
9		58,40	59,90	1,50	24,23	14,80		
10		59,90	61,50	1,60	26,74	16,60		
11		61,50	64,00	2,50	28,94	11,20		
12		64,00	65,60	1,60	24,75	19,80		
13		65,60	67,00	1,40	27,75	14,40		
14		67,00	68,50	1,50	24,77	9,80		
15		68,50	69,70	1,20	30,78	14,20		
16		69,70	71,00	1,30	29,73	17,00		
17		71,00	72,20	1,20	30,77	15,00		
18		72,20	73,20	1,00	30,55	14,00		
19		73,20	74,10	0,90	25,05	18,60		
20		74,10	75,70	1,60	19,23	16,60		
21		75,70	77,30	1,60	31,43	13,80		
22		77,30	78,60	1,30	26,59	17,80		
23		78,60	78,80	0,20	21,09	17,00		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1		24,30	25,10	0,80	22,30	17,40		
2		25,10	26,70	1,60	18,95	22,40		
3		26,70	28,30	1,60	28,00	15,20		
4		28,30	28,90	0,60	23,92	17,60		
5		28,90	30,50	1,60	29,39	15,40		
6		30,50	32,10	1,60	30,01	12,6		
7		32,10	33,70	1,60	28,10	9,40		
		33,70	35,30	1,60	31,74	9,20		
		35,30	36,90	1,60	27,01	9,20		
		36,90	38,50	1,60	16,41	5,80		
		38,50	39,30	0,80	20,39	5,60		
		39,30	40,90	1,60	19,90	15,00		
		40,90	42,50	1,60	21,89	10,40		



14	LDH-08	42,50	44,10	1,60	21,7	13,60	23,18%	12,52%
15		44,10	45,70	1,60	19,2	16,60		
16		45,70	46,70	1,00	24,72	11,00		
17		46,70	48,30	1,60	25,74	10,40		
18		48,30	49,90	1,60	26,67	11,00		
19		49,90	51,50	1,60	24,66	16,60		
20		51,50	53,10	1,60	29,43	10,00		
21		53,10	54,70	1,60	31,91	7,40		
22		54,70	56,30	1,60	23,89	5,00		
23		56,30	57,90	1,60	13,55	6,80		
24		57,90	59,20	1,30	25,76	8,20		
25		59,20	60,20	1,00	30,08	9,00		
26		60,20	61,70	1,50	26,94	5,00		
27		61,70	62,90	1,20	14,47	20,00		
28		62,90	64,30	1,40	12,05	22,20		
29		64,30	65,50	1,20	13,55	18,60		
30		65,50	66,60	1,10	28,57	12,00		
31		66,60	67,20	0,60	29,53	8,00		
32		67,20	68,80	1,60	15,03	17,80		
33		68,80	69,70	0,90	9,41	18,80		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-09	8,70	9,70	1,00	23,21	13,60	22,23%	9,22%
2		9,70	10,70	1,00	24,10	14,00		
3		10,70	12,30	1,60	28,52	12,00		
4		12,30	13,80	1,50	26,58	11,40		
5		13,80	14,80	1,00	22,77	9,40		
6		14,80	16,40	1,60	17,89	13,80		
7		16,40	18,00	1,60	23,66	10,20		
8		18,00	18,50	0,50	25,38	6,80		
9		18,50	19,60	1,10	28,04	8,40		
10		19,60	20,60	1,00	27,17	8,40		
11		20,60	22,20	1,60	25,38	6,80		
12		22,20	22,60	0,40	21,12	4,60		
13		22,60	24,10	1,50	17,18	5,00		
14		24,10	25,20	1,10	24,63	7,40		
15		25,20	26,80	1,60	20,00	4,40		
16		26,80	28,40	1,60	21,31	12,20		
		28,40	30,00	1,60	12,35	9,00		
		30,00	31,60	1,60	21,05	13,20		
		31,60	33,20	1,60	28,75	9,40		
		33,20	34,80	1,60	26,58	13,40		
		34,80	36,40	1,60	19,50	6,00		
		36,40	37,00	0,60	3,98	3,40		



No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-10	16,70	18,30	1,60	20,05	18,40	20,69%	10,75%
2		18,30	19,90	1,60	17,91	22,00		
3		19,90	20,60	0,70	22,5	16,60		
4		20,60	22,20	1,60	23,86	17,60		
5		22,20	23,80	1,60	22,39	16,00		
6		23,80	25,40	1,60	23,72	14,40		
7		25,40	27,00	1,60	24,61	14,20		
8		27,00	28,20	1,20	26,26	12,00		
9		28,20	29,80	1,60	22,75	16,80		
10		29,80	30,50	0,70	14,2	19,60		
11		30,50	32,10	1,60	6,91	17,60		
12		32,10	33,40	1,30	13,68	8,40		
13		33,40	34,70	1,30	10,78	1,00		
14		34,70	35,80	1,10	14,79	6,60		
15		35,80	37,30	1,50	29,10	8,60		
16		37,30	38,80	1,50	20,79	6,20		
17		38,80	40,30	1,50	25,55	8,40		
18		40,30	41,40	1,10	33,10	8,40		
19		41,40	42,40	1,00	32,87	6,20		
20		42,40	43,85	1,45	33,67	5,20		
21		43,85	45,45	1,60	29,55	8,60		
22		45,45	47,00	1,55	24,60	4,80		
23		46,65	47,00	0,35	24,77	6,40		
24		47,00	48,00	1,00	15,18	5,80		
25		48,00	48,50	0,50	20,22	6,20		
26		48,50	50,10	1,60	13,54	7,00		
27		50,10	51,50	1,40	2,48	2,80		
28		51,50	53,10	1,60	10,95	5,10		
29		53,10	54,70	1,60	13,30	9,60		
30		54,70	56,30	1,60	12,71	5,00		
31		56,30	57,90	1,60	36,25	15,00		
32		57,90	59,50	1,60	5,24	2,00		
33		59,50	61,10	1,60	18,85	12,20		
34		61,10	62,70	1,60	15,30	25,00		
35		62,70	62,90	0,20	19,96	14,00		
36		62,90	63,53	0,63	28,54	12,80		
		63,53	63,77	0,24	18,19	11,80		
		63,77	64,20	0,43	15,18	10,20		
		64,20	65,70	1,50	13,55	10,40		
		65,70	67,30	1,60	9,21	14,8		
		67,30	68,10	0,80	17,79	11,8		
		68,10	68,20	0,10	29,87	9,80		



43	68,20	69,10	0,90	27,90	7,00		
44	69,10	70,70	1,60	29,70	10,00		
45	70,70	72,30	1,60	27,62	11,20		
46	72,30	73,75	1,45	28,35	13,20		
47	73,75	73,90	0,15	27,71	13,40		
48	73,90	74,60	0,70	19,43	7,40		
49	74,60	75,50	0,90	20,45	8,00		
50	75,50	77,00	1,50	18,99	11,80		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	LDH-11	21,00	21,40	0,40	24,85	14,00	22,80%	10,29%
2		21,40	23,00	1,60	26,89	14,60		
3		23,00	24,60	1,60	27,25	14,60		
4		24,60	25,40	0,80	28,75	13,20		
5		25,40	27,00	1,60	27,21	12,60		
6		27,00	28,00	1,00	26,47	11,80		
7		28,00	28,80	0,80	28,15	10,20		
8		28,80	30,40	1,60	24,67	11,20		
9		30,40	32,00	1,60	28,18	8,00		
10		32,00	32,80	0,80	27,10	7,80		
11		32,80	34,40	1,60	29,64	7,00		
12		34,40	35,90	1,50	18,08	3,40		
13		35,90	37,50	1,60	20,69	8,00		
14		38,70	40,30	1,60	12,72	20,4		
15		40,30	41,70	1,40	13,54	20,2		
16		41,70	43,30	1,60	23,14	16,40		
17		43,30	44,90	1,60	20,31	12,00		
18		44,90	46,50	1,60	23,93	11,80		
19		46,50	48,10	1,60	23,04	9,80		
20		48,10	49,70	1,60	22,15	15,00		
21		49,70	51,30	1,60	24,23	11,20		
22		51,30	52,90	1,60	24,64	13,00		
23		52,90	54,50	1,60	20,09	15,80		
24		54,50	56,10	1,60	22,67	16,60		
25		56,10	57,70	1,60	21,46	16,00		
26		57,70	58,70	1,00	27,09	15,60		
27		58,70	59,70	1,00	22,75	8,80		
28		59,70	61,30	1,60	19,35	10,30		
		61,30	62,90	1,60	26,10	11,20		
		62,90	64,50	1,60	18,88	11,60		
		64,50	66,10	1,60	24,32	8,00		
		66,10	67,70	1,60	22,76	7,60		
		67,70	69,20	1,50	17,70	12,80		
		69,20	70,80	1,60	21,74	11,00		



35	70,80	72,40	1,60	17,21	11,60		
36	72,40	74,00	1,60	16,20	9,80		
37	75,00	75,60	0,60	12,17	10,60		
38	75,60	77,20	1,60	25,50	2,60		
39	77,20	78,80	1,60	21,49	1,00		
40	78,80	80,40	1,60	24,28	2,00		
41	80,40	82,00	1,60	29,38	7,00		
42	82,00	83,50	1,50	28,60	8,40		
43	83,50	85,10	1,60	28,74	3,20		
44	85,10	86,60	1,50	29,13	7,20		
45	86,60	88,20	1,60	26,15	6,40		
46	88,20	89,80	1,60	17,37	16,00		
47	89,80	91,30	1,50	18,06	10,40		
48	91,30	92,90	1,60	15,41	13,40		
49	92,90	94,50	1,60	27,13	2,60		
50	94,50	96,10	1,60	24,60	11,40		
51	96,10	97,40	1,30	17,26	13,20		



Optimized using
trial version
www.balesio.com

Lampiran 2. Tabel Hasil Laboratorium Blok Pasarwajo

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality (%)	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-02	4,40	4,80	0,40	31,4	8,40	26,74%	13,36%
2		4,80	6,40	1,60	28,94	14,60		
3		14,70	16,30	1,60	26,10	15,20		
4		16,30	17,80	1,50	30,09	10,00		
5		17,80	19,00	1,20	17,15	18,60		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-03	27,00	28,20	1,20	42,98	3,60	37,92%	4,97%
2		28,20	29,80	1,60	36,18	7,80		
3		29,80	31,40	1,60	34,13	4,80		
4		31,40	33,00	1,60	40,41	3,00		
5		33,00	33,30	0,30	41,92	2,80		
6		33,30	34,50	1,20	39,53	2,00		
7		36,40	36,90	0,50	30,34	10,80		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-04	11,70	13,30	1,60	37,04	6,40	37,04%	6,40 %.

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-05	6,70	7,40	0,70	32,38	3,00	30,75%	7,07%
2		7,40	7,80	0,40	20,27	13,40		
3		7,80	8,40	0,60	39,60	4,80		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-07	1,00	1,50	0,50	32,71	12,00	34,21%	7,85%
2		1,50	2,60	1,10	32,78	10,00		
3		2,60	3,10	0,50	32,75	9,00		
4		3,10	4,70	1,60	34,39	9,20		
5		4,70	6,20	1,50	35,7	6,40		
6		6,20	7,80	1,60	37,48	4,00		
7		7,80	8,20	0,40	34,7	7,40		
		24,20	25,00	0,80	33,23	4,80		



Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
	From	To	Thick	Bitumen	Water	Bitumen	Water
	21,30	22,90	1,60	26,68	8,00		
	22,90	24,50	1,60	17,39	17,80		
	24,50	26,10	1,60	34,95	7,60		

4	KDH-08	26,10	27,70	1,60	17,82	16,60	19,50%	15,60%
5		27,70	29,00	1,30	7,10	22,20		
6		32,00	32,40	0,40	20,37	15,80		
7		32,40	34,00	1,60	12,17	21,20		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-09	21,30	21,60	0,30	26,51	6,60	25,77%	9,92%
2		21,60	21,90	0,30	26,51	6,60		
3		21,90	22,10	0,20	27,40	8,60		
4		22,10	23,70	1,60	33,59	7,40		
5		23,70	24,60	0,90	31,47	9,00		
6		24,60	26,10	1,50	29,07	12,40		
7		26,10	27,60	1,50	22,04	16,00		
8		27,60	29,10	1,50	17,82	10,20		
9		29,10	30,20	1,10	23,84	10,00		
10		30,20	31,60	1,40	19,47	12,40		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-10	1,10	1,50	0,40	28,66	11,20	29,86%	11,60%
2		4,30	5,00	0,70	31,06	12,00		

No.	Bore Hole ID	Bitumen (m)			Quality (%)		Average Quality	
		From	To	Thick	Bitumen	Water	Bitumen	Water
1	KDH-11	16,40	17,60	1,20	19,00	17,00	20,39%	15,87%
2		17,60	18,20	0,60	25,27	11,00		
3		21,00	22,30	1,30	16,91	19,60		



Optimized using
trial version
www.balesio.com

Lampiran 3. Tabel Fracture Blok Lawe

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-01	15,30	15,40	0,10	4,20
2		19,60	19,65	0,05	0,55
3		20,20	20,25	0,05	3,00
4		23,25	23,40	0,15	0,30
5		23,70	23,80	0,10	1,50
6		25,30	25,40	0,10	2,35
7		27,75	27,80	0,05	0,45
8		28,25	28,30	0,05	2,25
9		30,55	30,60	0,05	1,85
10		32,45	32,50	0,05	0,60
11		33,10	33,20	0,10	1,90
12		35,10	35,15	0,05	0,15
13		35,30	35,35	0,05	23,05
14		58,40	58,45	0,05	7,05
15		65,50	65,55	0,05	2,05
16		67,60	67,65	0,05	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-02	21,20	21,25	0,05	2,35
2		23,60	23,65	0,05	24,45
3		48,10	48,15	0,05	1,05
4		49,20	49,30	0,10	1,40
5		50,70	50,80	0,10	0,40
6		51,20	51,25	0,05	2,55
7		53,80	53,85	0,05	5,85
8		59,70	59,75	0,05	1,55
9		61,30	61,35	0,05	1,05
10		62,40	62,45	0,05	0,90
11		63,35	63,40	0,05	2,35
12		65,75	65,80	0,05	2,60
13		68,40	68,50	0,10	0,25
14		68,75	68,80	0,05	2,30
15		71,10	71,15	0,05	0,95
16		72,10	72,25	0,15	1,35
17		73,60	73,80	0,20	0,40
18		74,20	74,30	0,10	0,10
19		74,40	74,50	0,10	0,90
20		75,40	75,45	0,05	3,30
21		78,75	78,80	0,05	0,70
22		79,50	79,60	0,10	2,50
23		82,10	82,15	0,05	1,60
24		83,75	83,80	0,05	0,40
25		84,20	84,40	0,20	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-03	6,50	6,70	0,20	13,90
2		20,60	20,80	0,20	13,40
3		34,20	34,30	0,10	1,85
4		36,15	36,30	0,15	2,60
5		38,90	38,95	0,05	3,65
6		42,60	42,65	0,05	3,45
7		46,10	46,15	0,05	1,50
8		47,65	47,75	0,10	6,75
9		54,50	54,60	0,10	24,10
10		78,70	78,80	0,10	0,70
11		79,50	79,90	0,40	0,10
12		80,00	80,20	0,20	0,10
13		80,30	80,40	0,10	3,10
14		83,50	83,60	0,10	3,00
15		86,60	86,90	0,30	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-04	11,20	11,30	0,10	15,80
2		27,10	27,30	0,20	11,70
3		39,00	39,30	0,30	17,90
4		57,20	57,30	0,10	0,10
5		57,40	57,55	0,15	1,05
6		58,60	58,75	0,15	12,75
7		71,50	71,60	0,10	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
	05	19,10	19,30	0,20	1,90
		21,20	21,25	0,05	0,35
		21,60	21,65	0,05	0,65
		22,30	22,35	0,05	0,30
		22,65	22,70	0,05	0,50
		23,20	23,25	0,05	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-06	20,70	20,75	0,05	4,65
2		25,40	25,45	0,05	7,95
3		33,40	33,45	0,05	9,15
4		42,60	42,70	0,10	7,50
5		50,20	50,80	0,60	5,60
6		56,40	56,65	0,25	1,10
7		57,75	57,80	0,05	2,05
8		59,85	59,90	0,05	7,60
9		67,50	67,70	0,20	6,60
10		74,30	74,35	0,05	1,45



11	75,80	75,85	0,05	1,90
12	77,75	77,80	0,05	2,50
13	80,30	80,35	0,05	2,00
14	82,35	82,40	0,05	4,85
15	87,25	87,30	0,05	1,35
16	88,65	88,80	0,15	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-07	10,00	10,20	0,20	7,95
2		18,15	18,40	0,25	19,10
3		37,50	37,55	0,05	0,55
4		38,10	38,20	0,10	24,15
5		62,35	62,55	0,20	7,00
6		69,55	69,70	0,15	10,00
7		79,70	79,75	0,05	0,15
8		79,90	79,95	0,05	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-08	16,00	16,20	0,20	2,20
2		18,40	18,45	0,05	7,05
3		25,50	25,55	0,05	0,25
4		25,80	25,85	0,05	4,05
5		29,90	29,95	0,05	3,15
6		33,10	33,30	0,20	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-09	10,50	10,55	0,05	2,25
2		12,80	12,85	0,05	7,70
3		20,55	20,60	0,05	5,70
4		26,30	26,35	0,05	1,10
5		27,45	27,50	0,05	3,20
6		30,70	30,80	0,10	1,90
7		32,70	32,80	0,10	2,40
8		35,20	35,40	0,20	0,20
9		35,60	36,65	1,05	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-10	16,30	16,35	0,05	1,45
2		17,80	17,85	0,05	6,95
3		24,80	24,85	0,05	1,35
4		26,20	26,25	0,05	2,35
5		28,60	28,65	0,05	0,95
6		29,60	29,65	0,05	0,70
7		30,35	30,45	0,10	2,25
8		32,70	32,75	0,05	9,95
9		42,70	42,90	0,20	14,75
10		57,65	57,75	0,10	9,85
11		67,60	67,85	0,25	10,80
12		78,65	78,70	0,05	0,40
13		79,10	79,30	0,20	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	LDH-11	21,70	21,75	0,05	1,85
2		23,60	23,65	0,05	1,60
3		25,25	25,30	0,05	4,35
4		29,65	29,70	0,05	2,50
5		32,20	32,35	0,15	0,35
6		32,70	32,85	0,15	2,40
7		35,25	35,30	0,05	3,20
8		38,50	38,85	0,35	0,65
9		39,50	39,55	0,05	1,65
10		41,20	41,50	0,30	-0,30
11		41,20	41,25	0,05	10,25
12		51,50	51,55	0,05	0,80
13		52,35	52,40	0,05	5,10
		57,50	57,55	0,05	1,95
		59,50	59,70	0,20	7,45
		67,15	67,50	0,35	0,50
		68,00	68,40	0,40	12,20
		80,60	80,70	0,10	0,50
		81,20	81,25	0,05	1,05
		82,30	82,35	0,05	



Lampiran 4. Tabel Fracture Blok Pasarwajo

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-01	15,70	15,75	0,05	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-02	15,50	15,60	0,10	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-03	15,10	15,40	0,30	
2					

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-04	12,70	12,85	0,15	26,35
2		39,20	39,30	0,10	0,30
3		39,60	39,75	0,15	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-05	12,30	12,45	0,15	11,85
2		24,30	24,40	0,10	2,20
3		26,60	26,65	0,05	2,85
4		29,50	29,55	0,05	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-07	22,30	22,40	0,10	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-08	31,40	31,60	0,20	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-10	21,45	21,65	0,20	0,85
2		22,50	22,60	0,10	

No.	Bore Hole ID	Fracture (meter)			
		From	To	Length	Interval to Next Fracture
1	KDH-11	16,60	16,70	0,10	2,80
2		19,50	19,60	0,10	2,65
3		22,25	22,40	0,15	



Peta Titik Bor
Lawele, Buton
Sulawesi Tenggara



Skala 1 : 6.000

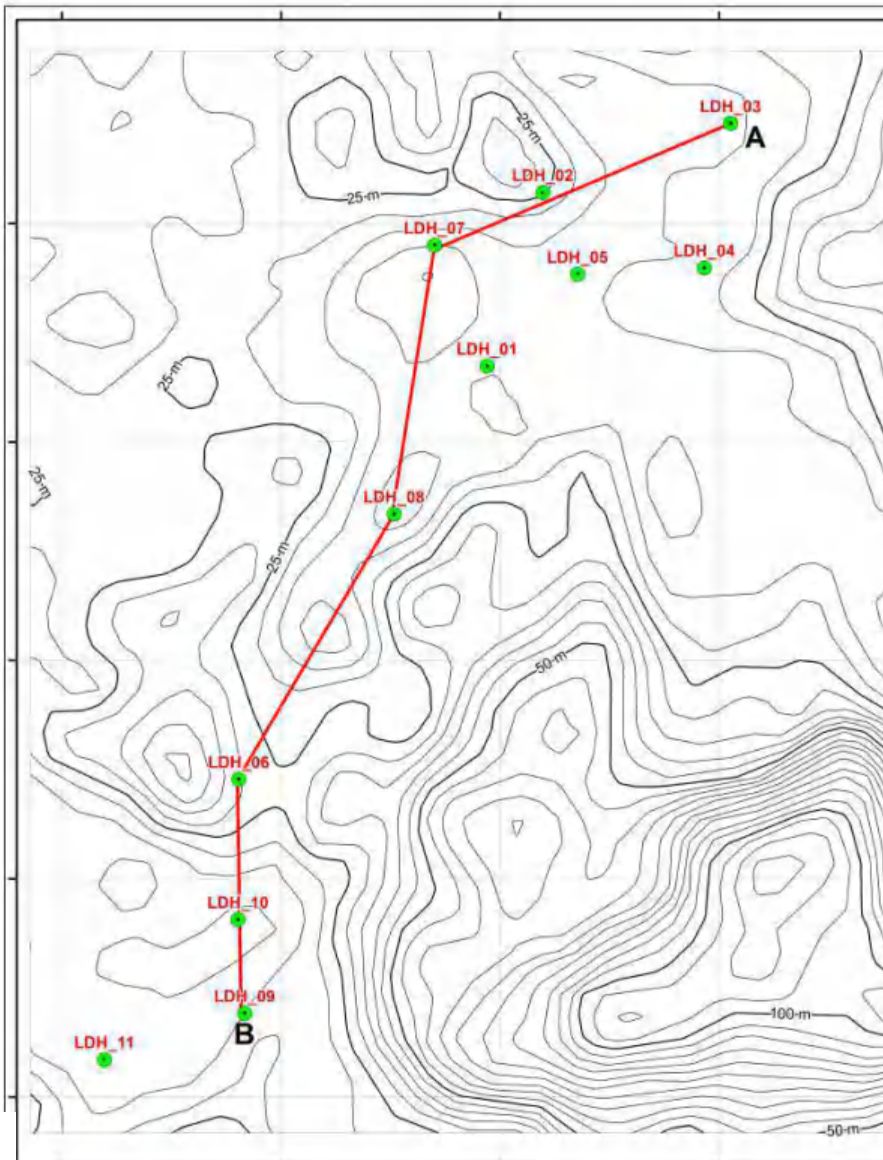
Index Kontur : 25 Meter
0 75 150 300 Meters

Sistem Grid : Geografis dan UTM
Proyeksi : Transverse Mercator
Datum : WGS 84
Zona : 51S

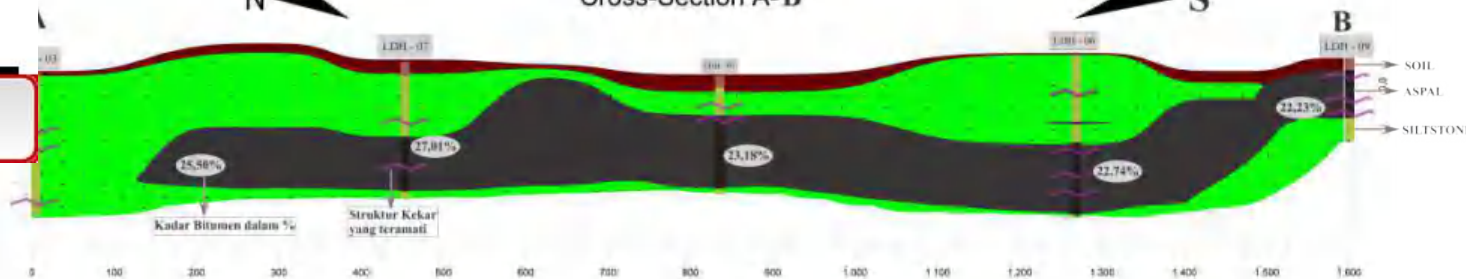
LEGENDA :



Lokasi Pulau Buton



Cross-Section A-B



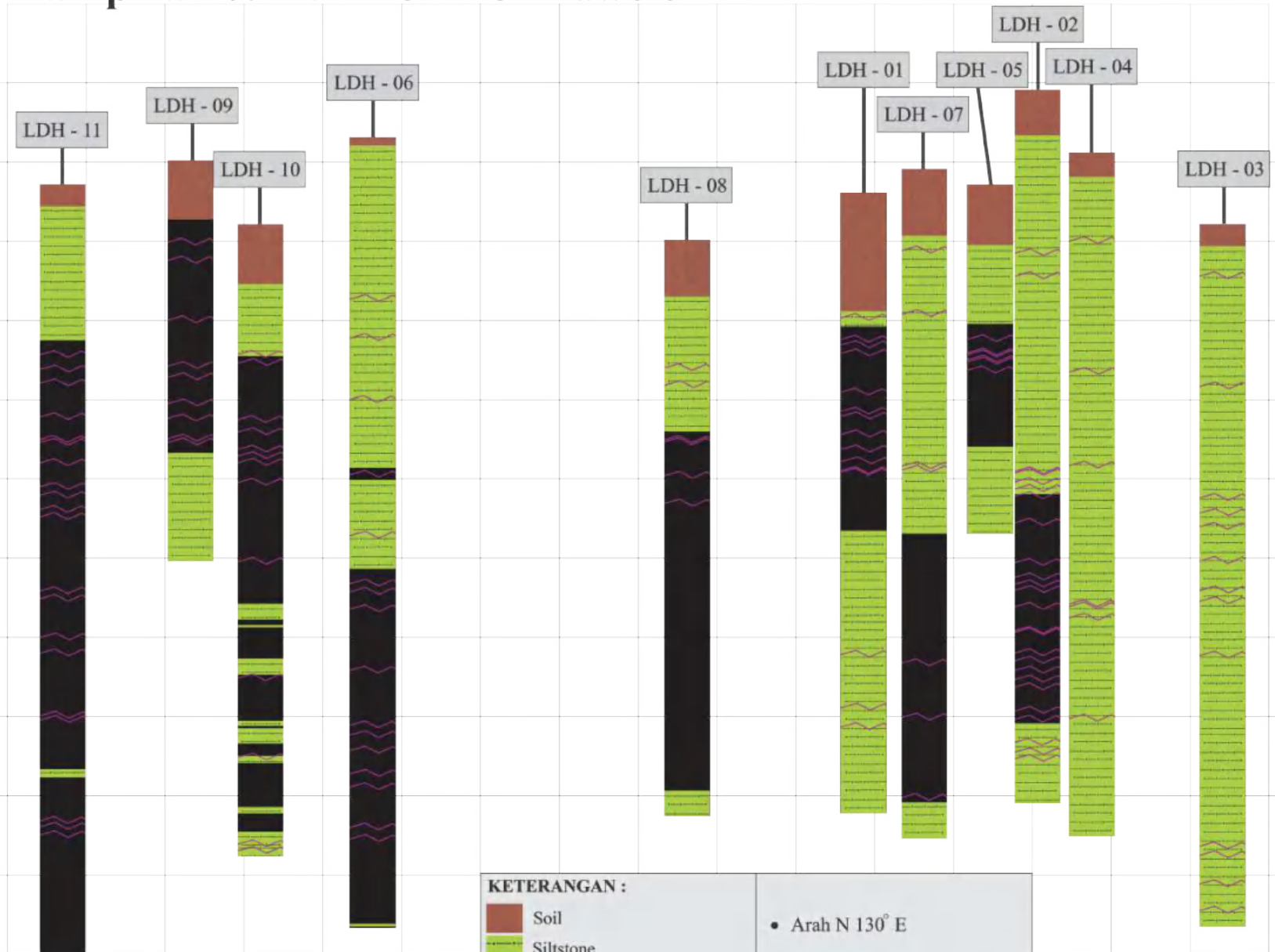
Lampiran 7. Titik Bor Blok Lawele

Drill Hole Depth	
Hole ID	Depth (m)
LDH-01	78,50
LDH-02	90,40
LDH-03	88,90
LDH-04	83,50
LDH-05	44,40
LDH-06	100,00
LDH-07	84,80
LDH-08	73,00
LDH-09	50,80
LDH-10	80,20
LDH-11	97,40

Aver



Optimized using
trial version
www.balesio.com

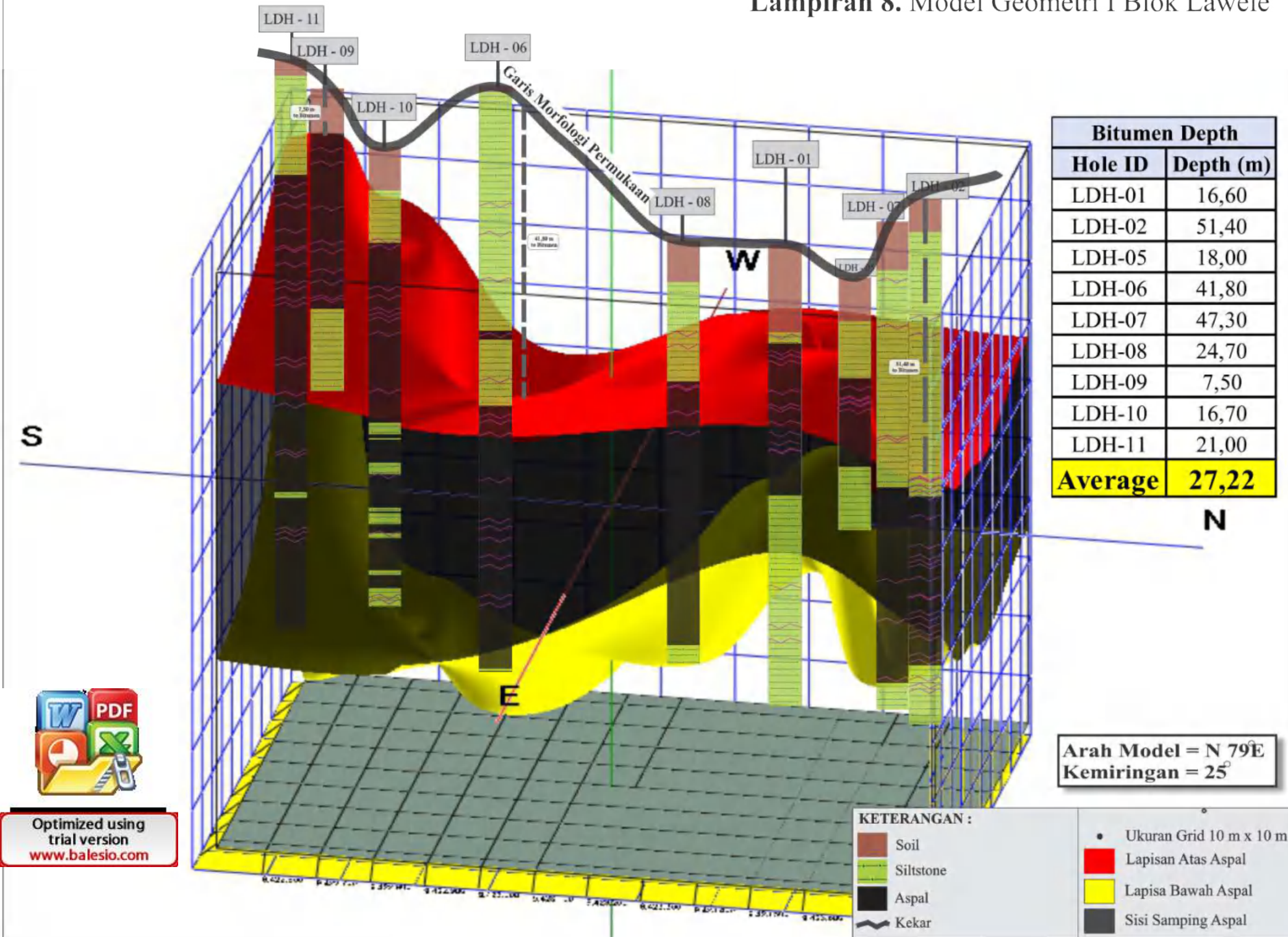


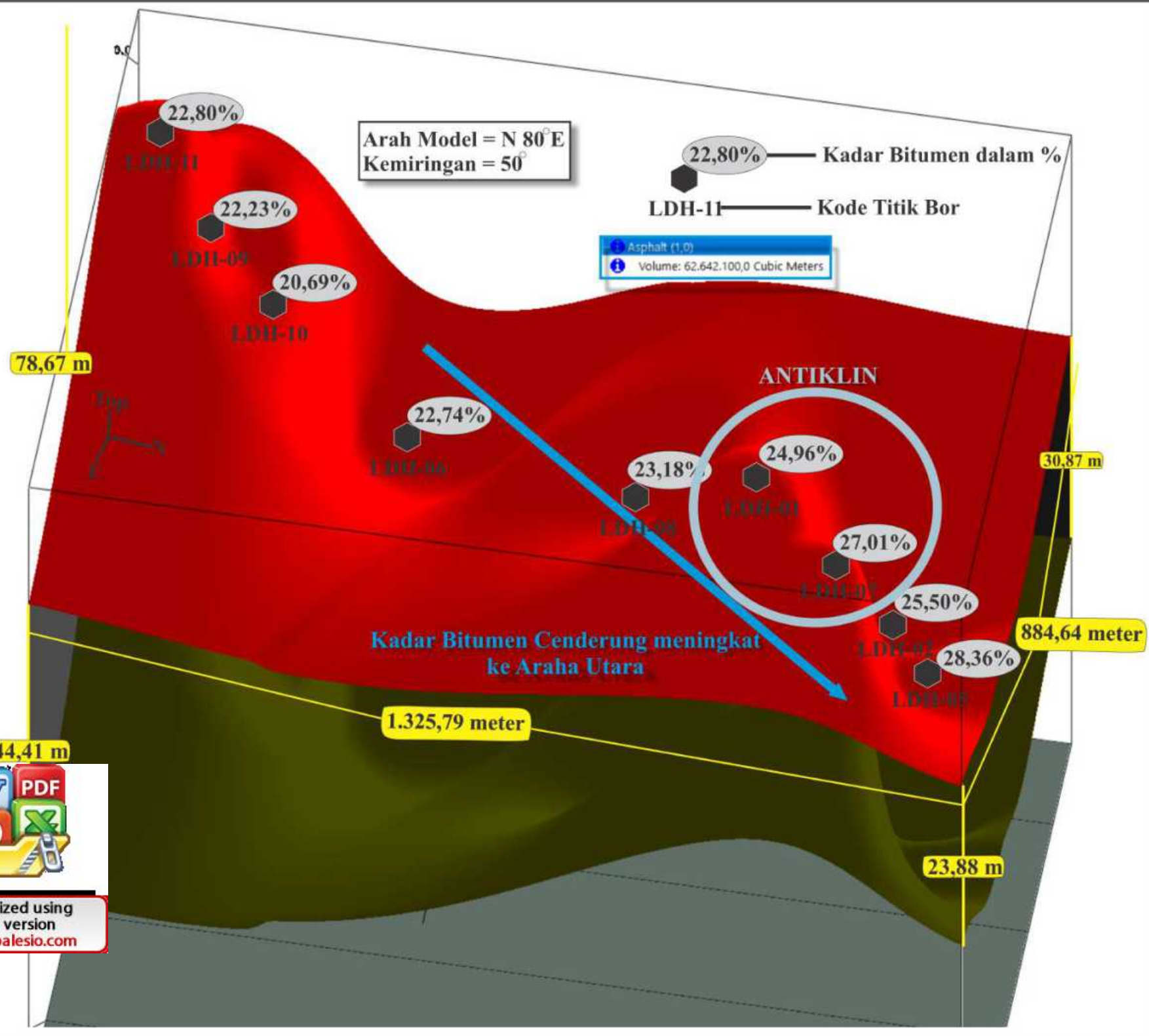
KETERANGAN :

- Soil
- Siltstone
- Aspal
- Kekar

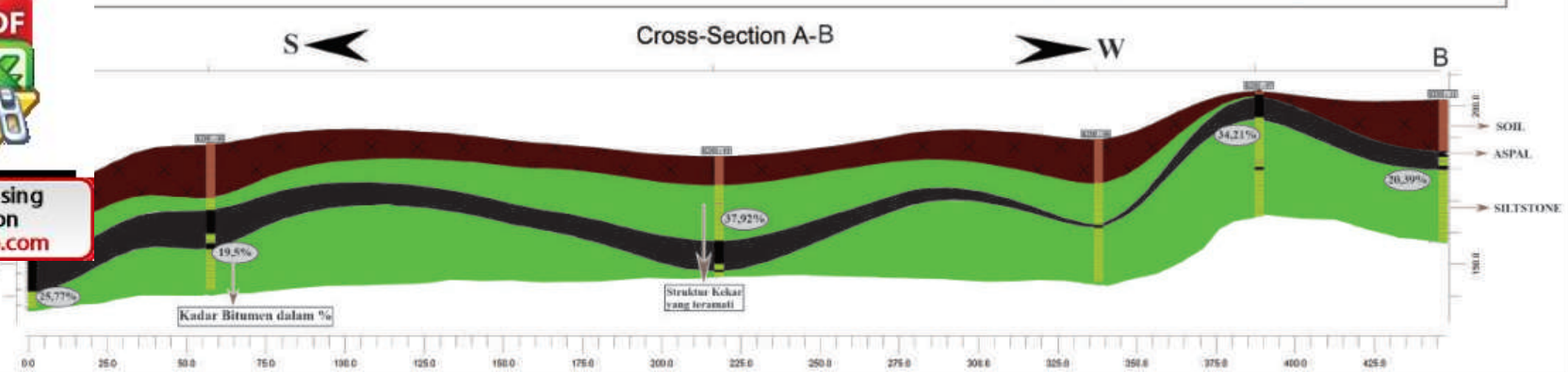
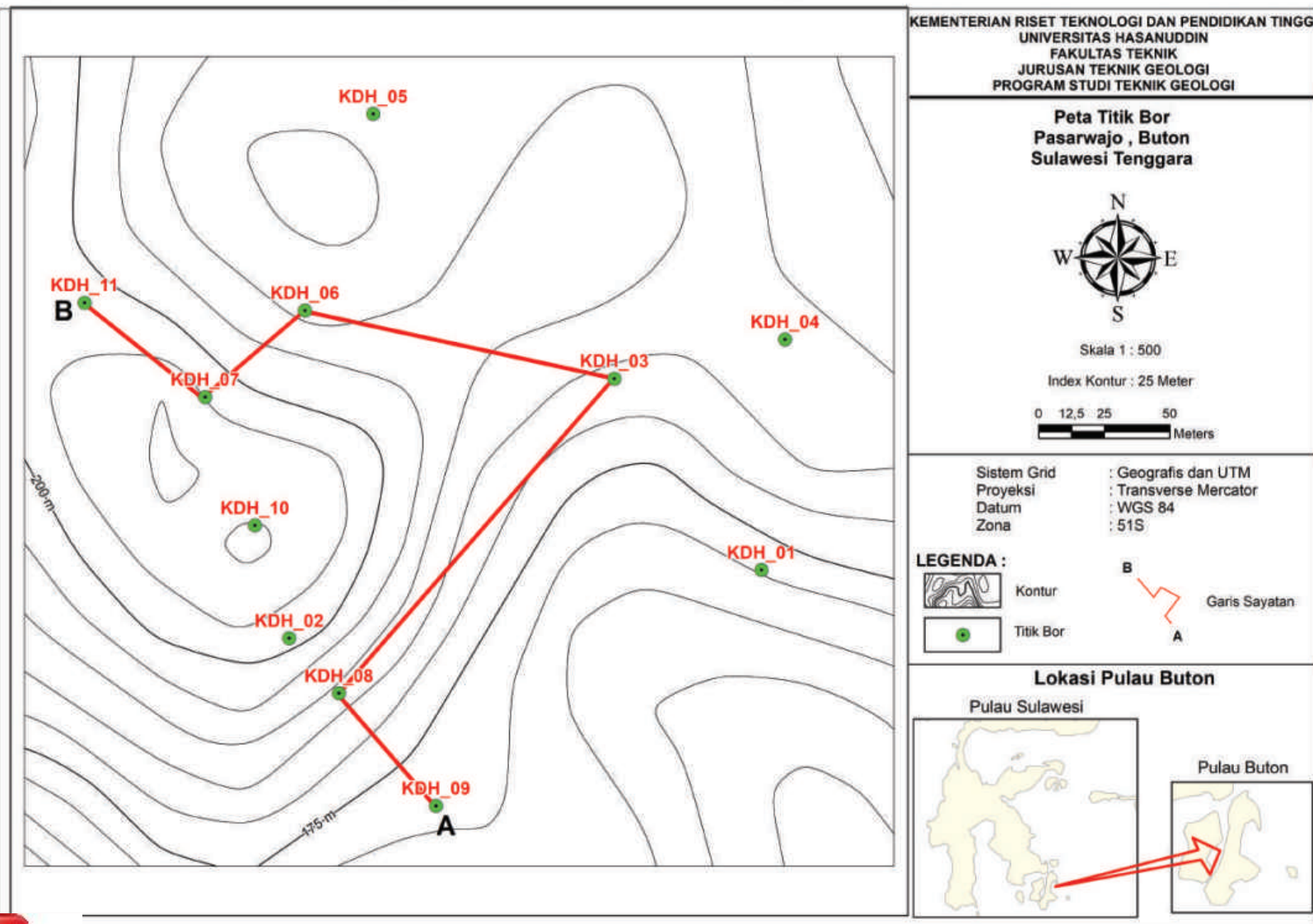
- Arah N 130° E
- Ukuran Grid 10 m x 10 m

Lampiran 8. Model Geometri I Blok Lawele



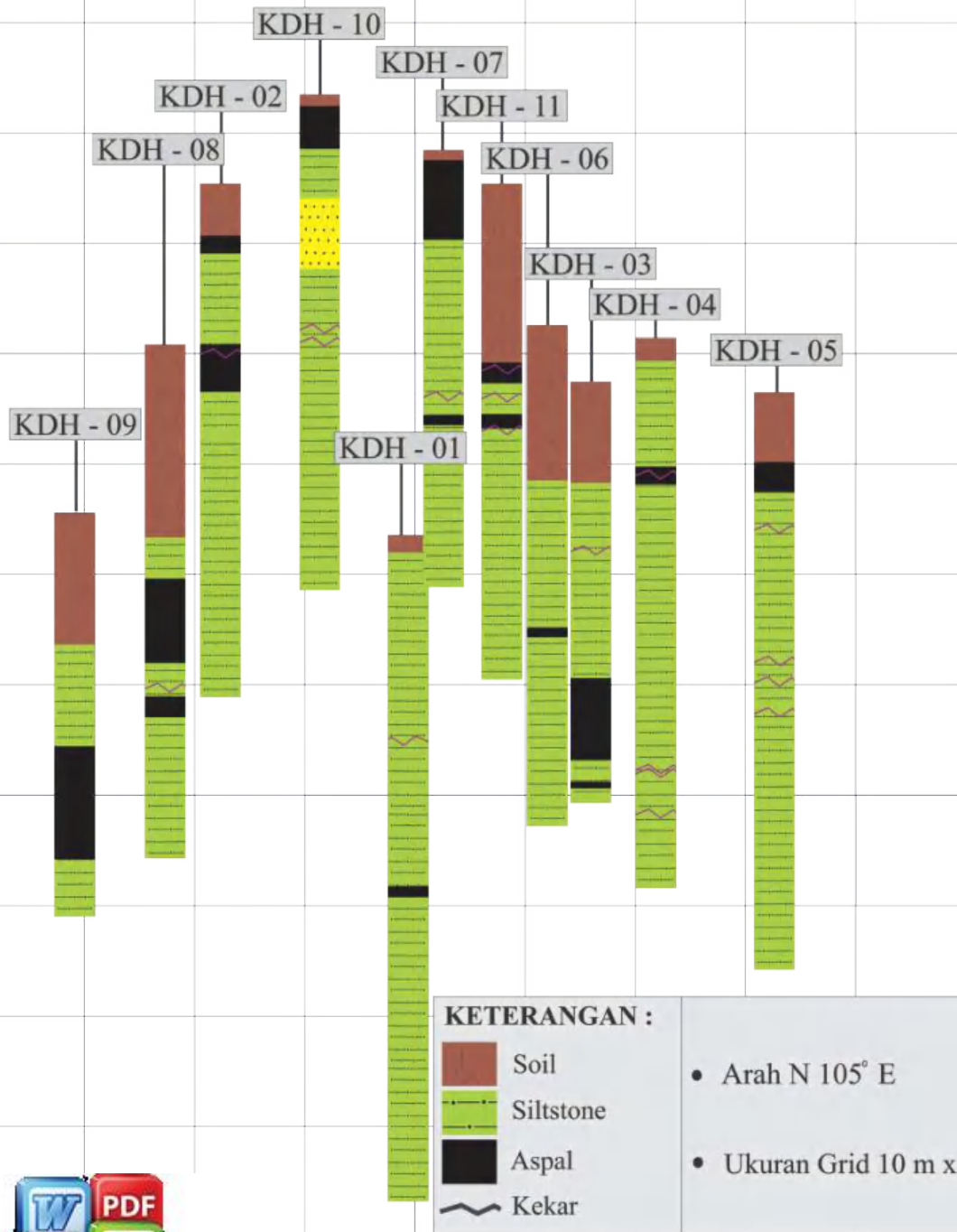


Lampiran 10. Peta dan Sayatan A-B Blok Pasarwajo



Optimized using
trial version
www.balesio.com

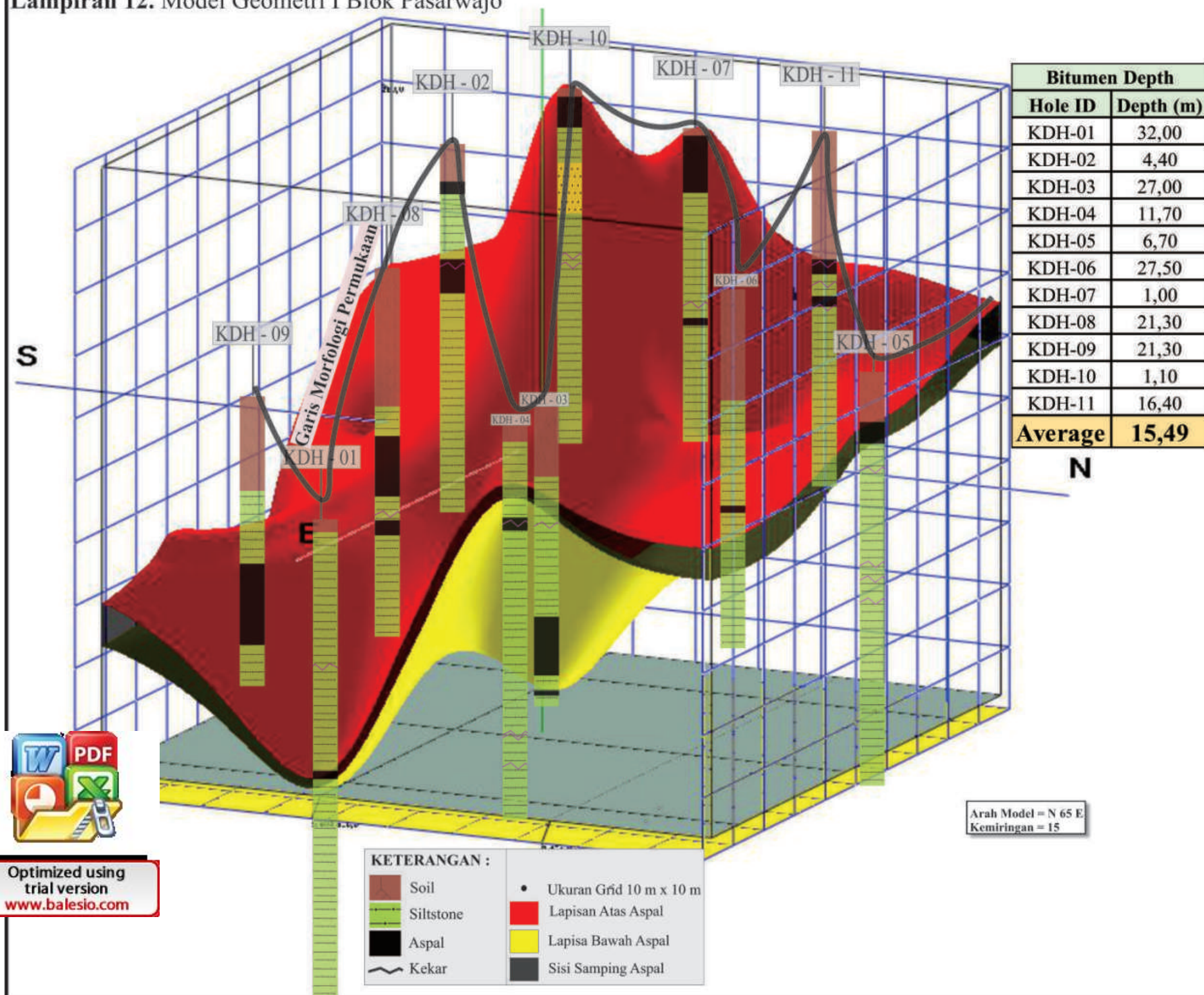
Lampiran 11. Titik Bor Blok Pasarwajo



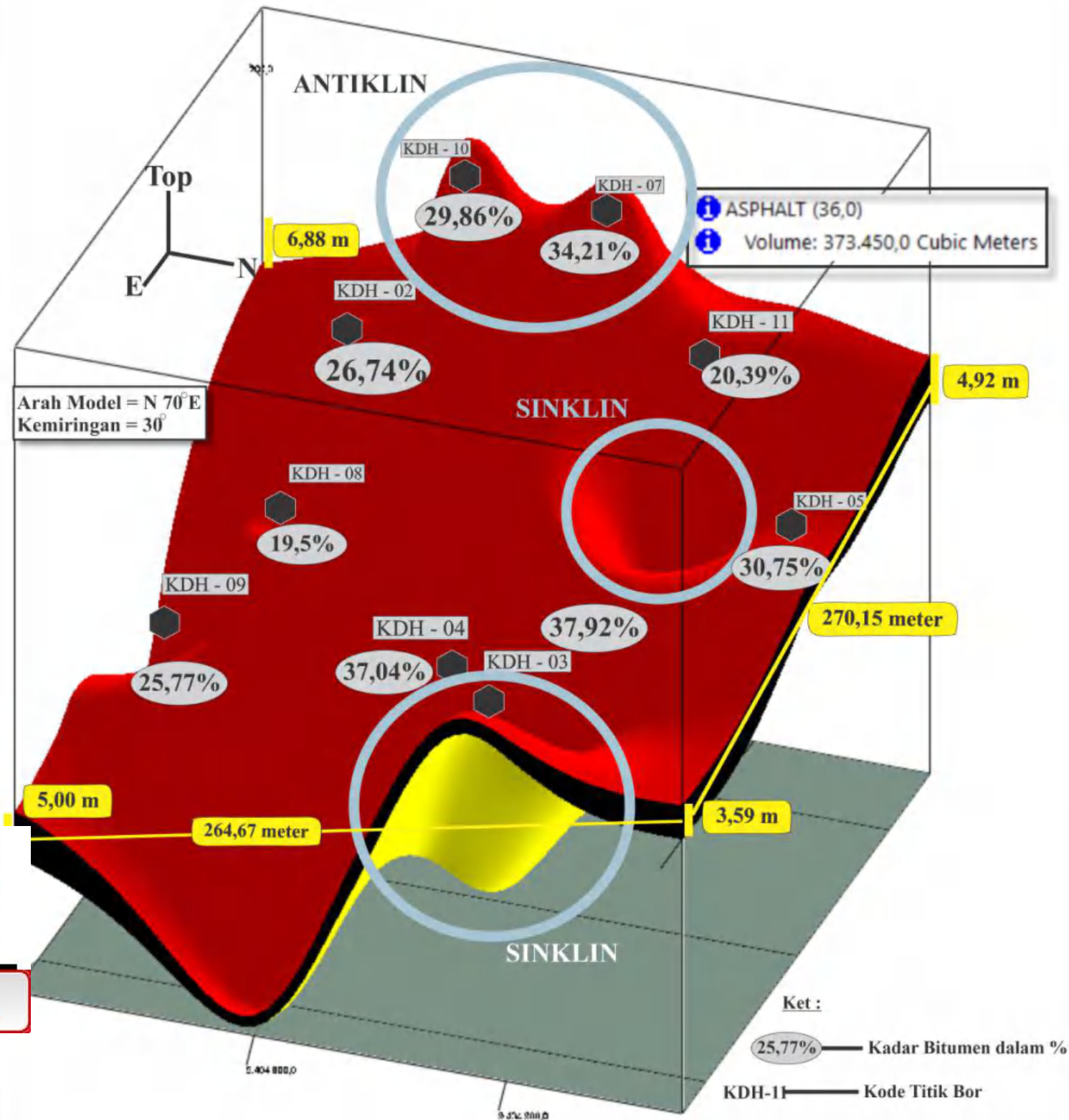
Drill Hole Depth	
Hole ID	Depth (m)
KDH-01	60,60
KDH-02	46,80
KDH-03	38,10
KDH-04	50,00
KDH-05	52,50
KDH-06	45,60
KDH-07	39,80
KDH-08	46,80
KDH-09	36,80
KDH-10	45,10
KDH-11	45,20
Average	46,12



Lampiran 12. Model Geometri I Blok Pasarwajo



Optimized using
trial version
www.balesio.com



Optimized using
trial version
www.balesio.com