

### ***11.3 Attachments to Chapter 3***

- Attachment 11.3.1:** Summarized data about characteristics of surface and groundwater used by Kozloduy Nuclear Power Plant during operation
- Attachment 11.3.2:** Vertebrates, inhabiting the region of Kozloduy NPP and Rare or endangered animal species habituating on the site and next to Kozloduy Nuclear Power Plant
- Attachment 11.3.3:** Characteristics of the soils in the 30km area of Kozloduy Nuclear Power Plant site
- Attachment 11.3.4:** Cultural heritage sites in the 30km area around Kozloduy Nuclear Power Plant
- Attachment 11.3.5:** Visual data and maps related to section 3.13

***Attachment 11.3.1 Summarized data about characteristics of surface and groundwater used by Kozloduy Nuclear Power Plant during operation***

**P16Del09Rev02\_EIA\_R – Chapter 11**

1. EXTRACT OF CONCENTRATION VALUES FOR THE PERIOD 2003 - 2008															
Point name	Date	Water temperature	Diluted oxygene	Oxygen saturation	COD (bichromatic)	BOD5	Oxidation (permang)	Nitrogen (ammon.)	Nitrogen nitric	Nitrogen nitrate	Orophosphate PO4	pH	Suspended solids	Phenols (volatil)	Oil product
		oC	mg/l	%	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		mg/l	mg/l	mg/l
MPC		-5		75	25	5	10	0.1	0.002	5	0.2	8.5	30	0.01	0
Danube river downstream Kozloduy town	15.05.2007	22.8	9.43	108		1.2	1.8					8.37	21		
Danube river downstream Kozloduy town	19.06.2007	25.4	6.24	76.1		1.42	2.98					8.16	26		
Danube river downstream Kozloduy town	10.07.2007	25.7	6.76	70.8		1.4	1.6					7.98	29		
Danube river downstream Kozloduy town	24.10.2007	14.5	3.93	38.1		0	1.05					8.28	26		0.101
Ogosta river at Danube confluence	21.01.2003	4.2	8.83	74		1.1	1.5	0.05	0.018	1.9	0.1	8.42	28		
Ogosta river at Danube confluence	19.02.2003	2.4	9.26	67.2	14	2.8	2	0.06	0.018	2.1	0.64	8.67	19		
Ogosta river at Danube confluence	05.03.2003	4.5	11	82.9		2.9	3.8	0.48	0.16	2.2	0.06	8.74	177		
Ogosta river at Danube confluence	10.04.2003	9.3	9.5	84			1.8	0.01	0.017	2	0.34	8.63	11		
Ogosta river at Danube confluence	14.05.2003	19.5	6.88	71.2	13	1.8	2.5	0.06	0.05	1.8	0.18	8.27	24		
Ogosta river at Danube confluence	12.06.2003	21.1	6.75	77.4	10	1.1	2.1	0.01	0.05	1.6	0.24	8.36	33		
Ogosta river at Danube confluence	09.07.2003	21.8	7.2	82.8		1.8	2.6	0.03	0.028	1.5	0.19	8.47	38		
Ogosta river at Danube confluence	05.08.2003	21.1	5.5	64	9	1.8	2.6	0.11	0.026	2.8	0.23	7.89	19		
Ogosta river at Danube confluence	03.09.2003	18.7	7.05	79.1		1.9	2.8	0.01	0.014	0.5	0.18	8.44	28		
Ogosta river at Danube confluence	22.10.2003	11.6	7.81	70.5		1	1.8	0.05	0.029	2.4	0.58	8.5	38		
Ogosta river at Danube confluence	06.11.2003	12.7	6.75	64	9	2	2.7	0.11	0.039	1.6	0.85	7.87	32		
Ogosta river at Danube confluence	10.12.2003	3.4	8.73	67.2	10	1	2.6	0.02	0.016	1.9	0.27	8.25	26		
Ogosta river at Danube confluence	30.01.2004	1.4	7.42	52.8	7.7	2.3	3.5	0.04	0.014	2.7	0	8.19	38		
Ogosta river at Danube confluence	05.02.2004	7.2	6.25	54.1	11.3	2.7	2.4	0	0.016	1.9	0.2	7.82	37		0
Ogosta river at Danube confluence	17.03.2004	10.1	8.98	79	16.4	3.9	2.6	0.04	0.037	2.2	0.19	8.01	19		
Ogosta river at Danube confluence	05.04.2004	10.3	7.6	73	15.1	1.9	1.6	0.19	0.052	1.9	0.33	7.51	30		
Ogosta river at Danube confluence	13.05.2004	17	6.45	67.1	10	3.5	2.9	0.04	0.013	1.7	0.14	8.2	38		
Ogosta river at Danube confluence	24.06.2004	21.4	6.18	64.2	13	1.24	3	0.005	0.034	1.7	0.57	7.84	61		
Ogosta river at Danube confluence	13.07.2004	22.4	4.02	46.5	23	1.1	1.2	0.02	0.089	1.16	0.42	7.87	31		
Ogosta river at Danube confluence	05.08.2004	23.8	8.15	97.6	14	2	1.96	0.092	0.013	1.23	0.34	8.51	74		0
Ogosta river at Danube confluence	15.09.2004	17.1	6.78	78.1	14	4.5	4.3	0.02	0.007	1.2	0.23	8.22	30		

**P16Del09Rev02\_EIA\_R – Chapter 11**

Ogosta river at Danube confluence	20.10.2004	16.2	9.04	86.7	15.3	2.1	1.98	0.087	0.008	1.76	0.592	8.09	33		
Ogosta river at Danube confluence	10.11.2004	11.8	8.53	79.1	16	2.1	1.9	0.03	0.008	2.3	1.13	8.77	31		
Ogosta river at Danube confluence	02.12.2004	7.9	7.58	62.6	10	2.5	1.95	0.025	0.007	1.94	0.29	7.91	29		
Ogosta river at Danube confluence	18.01.2005	1.8	6.39	46.8	13.1	1.29	1.76	0.16	0.006	2.21	0.151	8.26	30		
Ogosta river at Danube confluence	14.02.2005	0.7	5.64	41.6	19.2	2.59	2.7	0.029	0.012	2.18	0.324	8.22	42		0
Ogosta river at Danube confluence	09.03.2005	3.4	5.36	42.8	18	3.06	4.1	0.102	0.019	2.53	0.197	8.15	28		
Ogosta river at Danube confluence	05.04.2005	9.8	4.24	38.3	10	2.05	1.29	0.012	0.019	1.37	0.221	8.05	18.5		
Ogosta river at Danube confluence	10.05.2005	13.8	3.07	30.4	8.8	2.1	1.8	0.133	0.033	2.99	0.362	7.97	36		0
Ogosta river at Danube confluence	20.06.2005	19.2	2.45	26.5		2.36	3.35	0.033	0.02	1.62	0.074	7.79	37		
Ogosta river at Danube confluence	13.07.2005	20.2	4.26	44.9		2.12	2.67	0.052	0.051	1.78	0.52	7.8	47		
Ogosta river at Danube confluence	04.08.2005	21.5	7.41	84.6		3.3	2.26	0.022	0.015	0.692	0.14	7.83	50		
Ogosta river at Danube confluence	01.09.2005	19.1	6.88	73.7		2.4	2.68	0.01	0.029	1.99	0.093	7.73	50		
Ogosta river at Danube confluence	12.10.2005	16.2	7.62	77.8		1.35	1.4	0.011	0.024	2.83	0.106	7.49	26		
Ogosta river at Danube confluence	03.11.2005	12.2	10.3	95.7		2.1	3.88	0	0.012	1.22	0.067	8.2	26		
Ogosta river at Danube confluence	07.12.2005	7.9	6.68	78.6		1.3	1.87	0.033	0.03	2.6	0.083	7.69	19.5		
Ogosta river at Danube confluence	05.01.2006	5.2	10	105		1.75	1.76	0.069	0.029	1.81	0.097	8	28		
Ogosta river at Danube confluence	02.02.2006	4.8	11.1	85.2		2.6	3.72	0.094	0.025	4.1	0.071	8.94	26		
Ogosta river at Danube confluence	22.03.2006	10.6	8.49	76.9		1.24	1.84	0.039	0.035	3.16	0.104	8.1	30		
Ogosta river at Danube confluence	18.04.2006	12.9	6.66	74.9		2.01	2.86	0.038	0.03	2.5	0.18	8.47	56		
Ogosta river at Danube confluence	10.05.2006	14	7.08	78.1		2.13	2.66	0.023	0.024	1.52	0.104	8.02	40		
Ogosta river at Danube confluence	16.06.2006	20.1	6.05	65.6		1.75	2.36	0.155	0.066	2.84	0.126	7.81	23		
Ogosta river at Danube confluence	04.07.2006	19.2	6.98	75.9		2.68	3.27	0.257	0.083	1.82	0.063	7.87	41		
Ogosta river at Danube confluence	15.08.2006	20.6	3.45	38.2		1.92	0.93	0.035	0.19	2.12	0.285	8.58	29		
Ogosta river at Danube confluence	12.09.2006	17.6	10.5	101		1.82	2.5	0.022	0.012	1.09	0.015	8.46	37		
Ogosta river at Danube confluence	11.10.2006	16.3	8.9	88.2		2.33	2.04	0.042	0.056	2.34	0.029	8.4	24.5		
Ogosta river at Danube confluence	14.11.2006	8.8	9.66	83.6		2.14	2	0.013	0.019	2.39	0.25	8.16	19		
Ogosta river at Danube confluence	06.12.2006	11.2	8.85	73.5		1.71	3.17	0	0.018	3.65	0.002	8.18	22		
Ogosta river at Danube confluence	09.01.2007	6.6	6.49	52.6		2.78	1.34	0.051	0.021	2.9	0.133	8.06	28		
Ogosta river at Danube confluence	06.02.2007	7.2	10.2	97.1		3.02	2.19	0.053	0.019	3.92	0.046	8.36	39		
Ogosta river at Danube confluence	12.03.2007	7.6	11.8	108		2.46	1.95	0	0.022	2.35		7.99	27		

**P16Del09Rev02\_EIA\_R – Chapter 11**

Ogosta river at Danube confluence	16.04.2007	6.6	8.42	88.1		2.45	3.08	0	0.021	1.97		8.39	24		
Ogosta river at Danube confluence	10.05.2007	20.1	6.89	70.1		2.24	2.46	0	0.042	1.75		8.14	25		
Ogosta river at Danube confluence	19.06.2007	24.3	7.68	99.7		1.95	2.4	0	0.023	1.45		8.24	26		
Ogosta river at Danube confluence	10.07.2007	24.8	7.06	85.9		1.6	2.23	0	0.024	1.15		8.21	27		
Ogosta river at Danube confluence	01.08.2007	21.3	5.95	67.7		2.1	3.03	0	0.025	0.76		8.32	22		
Ogosta river at Danube confluence	17.09.2007	17.1	6.94	76		2.12	1.84	0	0.015	1.62		8.17	26		
Ogosta river at Danube confluence	24.10.2007	11.3	4.43	40.4		3.07	4.59	0.166	0.053	3.47		8.35	34		
Ogosta river at Danube confluence	08.11.2007	7.9	4.72	39.6		2.06	1.96	0.232	0.097	3.16		8.2	24		
Ogosta river at Danube confluence	04.12.2007	7.1	4.96	47.9		1.79	2.31	0.112	0.025	2.36		7.28	33		
Ogosta river at Danube confluence	12.02.2008	3.6	4.96	37.7	12.1	2.67		0.101	0.046	0.912	0.343	8.28	21	0.002	0.05
Ogosta river at Danube confluence	12.03.2008	12.1	5.65	52.7	13.8	2.8		0.003	0.018	0.81	0.257	7.57	11	0.002	
Ogosta river at Danube confluence	12.05.2008	16.2	8.05	84.9	9	2.84		0.197	0.018	2.23	0.019	8.24	11	0.005	
Ogosta river at Danube confluence	03.06.2008	18.9	8.18	89.4	22.4	5.84		0.041	0.034	1.39	0.298	8.26	19	0	
Ogosta river at Danube confluence	08.07.2008											8.15			
Ogosta river at Danube confluence	18.08.2008	26.7	8.6	106	18	3.81		0.023	0.003	1.66	0.077	8.57	5	0.001	
Ogosta river at Danube confluence	03.09.2008	23.8	9.08	112	26	4.8		0.008	0.014	0.85	0.218	8.65	13	0.002	
Ogosta river at Danube confluence	08.10.2008											8.37			
Ogosta river at Danube confluence	10.11.2008											8.65			
Ogosta river at Danube confluence	09.12.2008	5.6	10.5	92.6	8.4	2.36		0.016	0.014	2.21	0.561	8.43	20	0.001	0.091
Tsibritsa river at Dolni Tsibar	08.01.2003	2.9	12	88.7		2.58	7.44	0.163	0.052	4.41	0.613	8.03	105		
Tsibritsa river at Dolni Tsibar	04.02.2003	0.1	13.5	92.4		3.86	5.68	0.031	0.024	3.17	0.615	8.16	42		
Tsibritsa river at Dolni Tsibar	13.03.2003	9.4	11	96.2		1.12	2.88	0.058	0.029	5.44	0.154	8.2	42		
Tsibritsa river at Dolni Tsibar	02.04.2003	14.5	9.5	93.6		1.52	2.56	0.072	0.031	2.52	0.2	8.47	48		
Tsibritsa river at Dolni Tsibar	09.05.2003	19.3	8.7	95.1		1.29	1.92	0.063	0.05	6.07	1.08	8.35	96		
Tsibritsa river at Dolni Tsibar	03.06.2003	23.4	6.4	75.9		3.93	6.96	0.077	0.076	2.29	1.99	8.25	48		
Tsibritsa river at Dolni Tsibar	02.07.2003	28	6.7	86.8		1.66	2.8	0.07	0.067	4.88	0.4	8.45	42		
Tsibritsa river at Dolni Tsibar	06.08.2003	22.7	8.3	97.1		0.98	2.16	0.06	0.037	3.67	0.38	8.31	42		
Tsibritsa river at Dolni Tsibar	03.09.2003	18.8	10	108		1.4	2.56	0.16	0.014	0.83	0.42	8.35	30		
Tsibritsa river at Dolni Tsibar	07.10.2003	15.5	7.6	76.6		7.4	8.08	0.19	0.037	2.46	0.876	8.46	27		
Tsibritsa river at Dolni Tsibar	06.11.2003	10.7	9.3	85.9		6.14	7.68	0.07	0.03	3.09	0.19	8.39	41		

**P16Del09Rev02\_EIA\_R – Chapter 11**

Tsibritsa river at Dolni Tsibar	03.12.2003	7.1	9.6	79.3		5.04	6.8	0.074	0.032	2.59	1.55	8.46	48		
Tsibritsa river at Dolni Tsibar	13.01.2004	1.2	12.5	88.2		1.91	2.56	0.13	0.018	5.69	0.81	8.46	45		
Tsibritsa river at Dolni Tsibar	03.02.2004	7.2	11.7	96.8		3.78	5.6	0.16	0.021	3.83	5.73	8.5	48		
Tsibritsa river at Dolni Tsibar	04.03.2004	6.6	11	89.6		2.11	2.88	10.2	0.022	5.11	0.227	8.69	48		
Tsibritsa river at Dolni Tsibar	06.04.2004	11.4	9.7	89		3.31	4.16	0.085	0.035	4.95	0.232	8.41	49		
Tsibritsa river at Dolni Tsibar	04.05.2004	18.4	8.7	93.4		4.01	4.48	0.059	0.047	1.35	0.369	8.1	45		
Tsibritsa river at Dolni Tsibar	01.06.2004	20.9	6.9	77.9		4.02	4.56	0.103	0.065	3.05	0.038	8.33	47		
Tsibritsa river at Dolni Tsibar	06.07.2004	24.2	7.8	93.9		3.25	4.64	0.412	0.06	5.23	1.15	8.35	47		
Tsibritsa river at Dolni Tsibar	04.08.2004	22.5	6.6	76.9		3.63	4.2	0	0.035	5.9	0.81	8.43	38		
Tsibritsa river at Dolni Tsibar	07.09.2004	17.8	9.1	96.4		2.74	3.3	0.282	0.019	5.66	6.08	8.33	41		
Tsibritsa river at Dolni Tsibar	05.10.2004	15.8	8.2	83.2		2.08	3.4	0.016	0.017	5.17	0.985	8.39	42		
Tsibritsa river at Dolni Tsibar	03.11.2004	13.3	8	76.7		4.23	5.2	0.127	0.038	3.62	1.312	8.44	48		
Tsibritsa river at Dolni Tsibar	01.12.2004	7.9	9.8	82.6		1.63	3.1	0.99	0.021	4.95	4.95	8.38	48		
Tsibritsa river at Dolni Tsibar	18.01.2005	3.7	10.6	80.1		1.96	2.2	0.09	0.02	6.09	0.941	8.39	39		
Tsibritsa river at Dolni Tsibar	01.02.2005	4.2	12.2	93.4		2.76	3.4	0.161	0.019	6.4	0.778	8.48	41		
Tsibritsa river at Dolni Tsibar	10.03.2005	5	11.7	91.5		3.15	3.8	0.145	0.022	4.04	2.1	8.44	48		
Tsibritsa river at Dolni Tsibar	05.04.2005	12.8	12.7	120		3.72	4.3	0.094	0.014	2.73	1.23	8.39	52		
Tsibritsa river at Dolni Tsibar	03.05.2005	17.7	9.8	103		4.01	4.4	0.102	0.043	12	0.737	8.36	47		
Tsibritsa river at Dolni Tsibar	23.06.2005	22.7	6	70.2		3.06	3.9	0.052	0.055	5.09	0.124	8.21	47		
Tsibritsa river at Dolni Tsibar	21.07.2005	24.6	5.7	69.2		2.87	3.5	0.206	0.045	3.62	0.22	8.23	48		
Tsibritsa river at Dolni Tsibar	16.08.2005	15	6.3	62.8		10	10.7	0.098	0.051	2.55	0.252	8.04	89.6		
Tsibritsa river at Dolni Tsibar	08.09.2005	20.7	6.1	68.5		4.64	5.6	0.176	0.031	5.3		8.31	43		
Tsibritsa river at Dolni Tsibar	19.10.2005	8.8	6.6	56.7		4.85	6.2	0.25	0.023	3.57	0.127	7.91	46		
Tsibritsa river at Dolni Tsibar	02.11.2005	10.2	11.2	99.8		3.04	3.6	0.093	0.022	5.26	0.106	8.19	48		
Tsibritsa river at Dolni Tsibar	08.12.2005	5.5	11.6	66.8		2.76	3.5	0.098	0.022	3.95	0.192	8.37	49		
Tsibritsa river at Dolni Tsibar	10.01.2006	2.9	14.1	104		3.95	4.4	0.115	0.018	3.76	0.13	8.17	47		
Tsibritsa river at Dolni Tsibar	21.02.2006	4.5	11.7	90.3		5.76	6.4	0.176	0.051	6	0.53	7.9	81		
Tsibritsa river at Dolni Tsibar	07.03.2006	3.2	10.7	79.7		7.96	8.2	0.229	0.092	1.66		8.03	94		
Tsibritsa river at Dolni Tsibar	19.04.2006	15.9	8.3	84.4		5.12	5.8	0.09	0.032	7.41	0.136	8.01	70		
Tsibritsa river at Dolni Tsibar	16.05.2006	21.3	11.9	135		2.22	3.2	0.123	0.034	10.6		7.79	58		

**P16Del09Rev02\_EIA\_R – Chapter 11**

Tsibritsa river at Dolni Tsibar	22.06.2006	20.3	6.7	74.7		3.12	3.8	0.057	0.024	2.51	0.051	8.27	43		
Tsibritsa river at Dolni Tsibar	18.07.2006	23.6	8.8	105		3.21	3.8	0.047	0.074	16.7		8.4	46		
Tsibritsa river at Dolni Tsibar	22.08.2006	19.5	9.7	106		8.4	9.6	0.092	0.011	4.92		8.25	39		
Tsibritsa river at Dolni Tsibar	19.09.2006	15.9	9	91.5		4.5	5.8	0.165	0.008	3.69		8.47	45		
Tsibritsa river at Dolni Tsibar	17.10.2006	13.1	7.2	68.7		2.5	3.2	0.036	0.013	1.27		8.42	48		
Tsibritsa river at Dolni Tsibar	07.11.2006	10.3	10.9	97.4		2	2.4	0.047	0.029	14.7		8.34	43		
Tsibritsa river at Dolni Tsibar	07.12.2006	10.9	9.1	82.5		4	4.4	0.33	0.007	3.83		8.03	45		
Tsibritsa river at Dolni Tsibar	24.01.2007	8.3	11.5	97.8		2.6	3.2	0.184	0.032	16.4		8.28	40		
Tsibritsa river at Dolni Tsibar	20.02.2007	10	9.4	83.4		2.1	2.8	0.054	0.006	2.64		8.31	42		
Tsibritsa river at Dolni Tsibar	27.03.2007	12.6	9.5	89.6		4.7	5.4	0.04	0.007	2.44		8.48	48		
Tsibritsa river at Dolni Tsibar	23.04.2007	12.5	8.2	75.8		2.4	2.9	0.042	0.012	2		8.42	42		
Tsibritsa river at Dolni Tsibar	29.05.2007	18	8.3	88.3		3.2	4.1	0.07	0.013	3.22	0.475	8.34	56		
Tsibritsa river at Dolni Tsibar	26.06.2007	21	6.9	78.1		2.8	3.2	0.098	0.013	2.47		8.5	45		
Tsibritsa river at Dolni Tsibar	17.07.2007	27.6	7	90		4	4.8	0.101	0.079	7.11	5.002	8.44	71		
Tsibritsa river at Dolni Tsibar	21.08.2007	20.9	6.1	68.8		5.3	5.8	0.594	0.01	18		8.48	45		
Tsibritsa river at Dolni Tsibar	18.09.2007	19	6.5	70.6		3.1	3.4	0.177	0.01	2.28		8.27	45		
Tsibritsa river at Dolni Tsibar	16.10.2007	12.1	7.3	68.1		2.6	3.6	0.139	0.019	2.37		8.44	48		
Tsibritsa river at Dolni Tsibar	13.11.2007	7.5	7.1	59.2		3.5	4.1	0.083	0.01	1.35		7.36	64		
Tsibritsa river at Dolni Tsibar	05.02.2008		10.3	82.3	11.2	3.2		0.521	0.023	9.61		8.04			
Tsibritsa river at Dolni Tsibar	15.05.2008		8.9	82.4	11.7	3.6		0.828	0.009	1.48		8.27	50	0	
Tsibritsa river at Dolni Tsibar	10.06.2008	22.1	9.4	108	15.8	3.6		0.037	0.045	6.46		8.19	45	0	
Tsibritsa river at Dolni Tsibar	12.08.2008		7	80.92	9.6	2.1		0.04	0.039	8.71		8.2	48	0.002	
Tsibritsa river at Dolni Tsibar	09.09.2008	23.5	7.8	92.64	15.8	3.4		0.053	0.038	12.289		7.97	48	0.002	
Tsibritsa river at Dolni Tsibar	11.11.2008	8.9	9.2	79.45	10.7	2.7		0.078	0.037	6.283		7.89	43	0.002	
Tsibritsa river at Dolni Tsibar	09.12.2008		8.2	66.59	10.3	2.5		0.056	0.027	8.768		8.39	46	0.002	

**P16Del09Rev02\_EIA\_R – Chapter 11**

**2 SUMMARY RESULTS OF PHYSICAL AND CHEMICAL TESTS GROUNDWATER IN KOZLODUY NPP REGION FOR 2006**

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	5.46	5.9	6.4	6.37
pH	-	≥ 6,5 and ≤ 9,5		7.74	7.93	8	7.96
Dissolved solids	mg/dm <sup>3</sup>	500	1000	596	658	617	559
Chlor-ion content	mg/dm <sup>3</sup>	30	100	19.8	24.8	17.7	17
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	59.6	26.9	40.1	33.4
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	<0.003	0.034	0.05	0.129
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.026	0.026	<0.001	0.012
Nitrates content	mg/dm <sup>3</sup>	10	30	21.1	20.9	13.7	12.1
Permang.oxidation	mg/dm <sup>3</sup>	-	-	4.51	0.952	1.3	1.42
Total β – activity	Bq/dm <sup>3</sup>	2 <sup>1</sup>		0.085	0.056	0.1	0.09
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	200	-
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	-
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-1. Results for samples test from test pit No 122**

Monitored indicator	Unit	Limit envir.content	Contaminatio n limit	I-st trimestre	II-nd trimest re	III-rd trimest re	IV-th trimest re
Water table	m	-	-	6.68	7.10	7.53	7.42
pH	-	≥ 6,5 and ≤ 9,5		7.62	7.55	7.7	7.5
Dissolved solids	mg/dm <sup>3</sup>	500	1000	<b>1095</b>	<b>1187</b>	<b>1198</b>	<b>1093</b>
Chlor-ion content	mg/dm <sup>3</sup>	30	100	51.8	54.6	52.5	53.2
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	124	130	<b>239</b>	129
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.012	0.135	0.144	0.028
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.08	0.020	0.038	0.019
Nitrates content	mg/dm <sup>3</sup>	10	30	26.4	24.7	23.2	19.8
Permang.oxidation	mg/dm <sup>3</sup>	-	-	1.04	0.648	1.66	1.57
Total β – activity	Bq/dm <sup>3</sup>	2		0.521	0.609	0.646	0.542
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	120	-
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	-
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-2. Results for samples test from test pit No 127**

Monitored indicator	Unit	Limit envir.content	Contaminat ion limit	I-st trimestre	II-nd trimest re	III-rd trimest re	IV-th trimest re
Water table	m	-	-	0.79	4.25	4.78	1.41
pH	-	≥ 6,5 and ≤ 9,5		7.98	7.92	8.2	8.01
Dissolved solids	mg/dm <sup>3</sup>	500	1000	226	445	479	377
Chlor-ion content	mg/dm <sup>3</sup>	30	100	20.6	48.9	53.9	46.8
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	24.7	28.8	58.7	39.8
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.042	0.019	<0.003	0.021
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.038	0.008	<0.001	0.014
Nitrates content	mg/dm <sup>3</sup>	10	30	8.14	9.18	6.04	8.52
Permang.oxidation	mg/dm <sup>3</sup>	-	-	1.43	2.70	4.25	4.5
Total β – activity	Bq/dm <sup>3</sup>	2		0.564	1.344	1.509	0.891
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	198	-
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	-

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-3. Results for samples test from test pit No 334/335**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	5.72	5.70	6.52	6.12
pH	-	≥ 6,5 and ≤ 9,5		7.79	7.73	7.85	7.73
Dissolved solids	mg/dm <sup>3</sup>	500	1000	607	663	633	599
Chlor-ion content	mg/dm <sup>3</sup>	30	100	14.2	18.4	12	12.1
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	88.5	64.5	92.3	80.8
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.006	0.058	0.018	0.037
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.017	0.022	<0.001	0.008
Nitrates content	mg/dm <sup>3</sup>	10	30	<b>52.3</b>	<b>52.3</b>	35.1	22.9
Permang.oxidation	mg/dm <sup>3</sup>	-	-	0.55	0.72	0.568	0.496
Total β – activity	Bq/dm <sup>3</sup>	2		0.069	0.078	<0.016	0.096
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	130	-
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	< 5	-
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-4. Results for samples test from test pit No 422**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	7.04	7.45	7.63	7.5
pH	-	≥ 6,5 and ≤ 9,5		<b>10.3</b>	<b>10.31</b>	<b>10,33</b>	<b>10.64</b>
Dissolved solids	mg/dm <sup>3</sup>	500	1000	342	464	402	383
Chlor-ion content	mg/dm <sup>3</sup>	30	100	21.9	21.3	17.7	19.1
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	97.7	<b>180</b>	<b>160</b>	117
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	2.74	0.209	0.089	0.18
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.08	<b>0.399</b>	<b>0.399</b>	<b>0.87</b>
Nitrates content	mg/dm <sup>3</sup>	10	30	18.9	8.45	8.45	3.93
Permang.oxidation	mg/dm <sup>3</sup>	-	-	0.41	1.92	2.74	1.76
Total β – activity	Bq/dm <sup>3</sup>	2		0.386	0.441	0.632	0.572
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	100	-
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	< 5	-
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-5. Results for samples test from test pit No 632**

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	4.5	5.3	6.2	4.34
pH	-	≥ 6,5 and ≤ 9,5		8.4	.02	7.71	8.8
Dissolved solids	mg/dm <sup>3</sup>	500	1000	197	804	588	286
Chlor-ion content	mg/dm <sup>3</sup>	30	100	< 10	20.6	18.4	17.7
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	65,1	<b>226</b>	133	122
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.045	0.280	0.048	0.059
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.066	0.077	0.007	0.089
Nitrates content	mg/dm <sup>3</sup>	10	30	3.78	2.52	2.82	2.51
Permang.oxidation	mg/dm <sup>3</sup>	-	-	0.87	2.62	0.648	2.23
Total β – activity	Bq/dm <sup>3</sup>	2		0.178	0.111	0.102	0.099
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	190	-
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	-
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-6. Results for samples test from test pit No 834**

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	7.2	7.5	7.8	7.7
pH	-	≥ 6,5 and ≤ 9,5		7.47	7.41	7.73	7.83
Dissolved solids	mg/dm <sup>3</sup>	500	1000	772	658	629	632
Chlor-ion content	mg/dm <sup>3</sup>	30	100	< 10	< 10	< 10	< 10
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	76.6	20.8	38.3	40.2
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	<0.003	0.070	0.016	0.027
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.003	0.009	<0.001	0.007
Nitrates content	mg/dm <sup>3</sup>	10	30	19.9	8.80	10.8	7.26
Permang.oxidation	mg/dm <sup>3</sup>	-	-	1.23	0.240	0.728	0.456
Total β – activity	Bq/dm <sup>3</sup>	2		0.075	0.145	0.120	0.187
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	<b>205</b>	-
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	-
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-7. Results for samples test from test pit No Cp-3**

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	7.2	7.5	7.6	7.62
pH	-	≥ 6,5 and ≤ 9,5		7.7	7.72	7.9	7.98
Dissolved solids	mg/dm <sup>3</sup>	500	1000	<b>1630</b>	638	<b>1391</b>	573
Chlor-ion content	mg/dm <sup>3</sup>	30	100	73	73.7	<b>119</b>	<b>112</b>
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	<b>210</b>	146	<b>191</b>	<b>176</b>
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.018	0.130	<0.003	0.044
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.017	0.015	<0.001	0.057
Nitrates content	mg/dm <sup>3</sup>	10	30	<b>36.1</b>	<b>35.9</b>	20.4	24.3
Permang.oxidation	mg/dm <sup>3</sup>	-	-	2.09	0.552	1.1	1.66
Total β – activity	Bq/dm <sup>3</sup>	2		<0.014	<0.009	<0.016	<0.013
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	163	-
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	-
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	-

**Table 2-8. Results for samples test from test pit No Cw-4**

**P16Del09Rev02\_EIA\_R – Chapter 11**

**3. SUMMARY RESULTS FROM PHYSICAL AND CHEMICAL TESTS OF GROUNDWATER  
IN KOZLODUY NPP REGION FOR 2007**

Monitored indicator	Unit	Limit envir.content	Contaminatio n limit	I-st trimestre	II-nd trimest re	III-rd trimest re	IV-th trimest re
Water table	m	-	-	5.9	7.6	-	-
pH	-	≥ 6,5 and ≤ 9,5		7.71	8.18	-	-
Dissolved solids	mg/dm <sup>3</sup>	500	1000	600	577	-	-
Chlor-ion content	mg/dm <sup>3</sup>	30	100	17.7	17	-	-
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	23.9	28.9	-	-
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	< 0.001	0.008	-	-
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.006	< 0.001	-	-
Nitrates content	mg/dm <sup>3</sup>	10	30	15	15.9	-	-
Permang.oxidation	mg/dm <sup>3</sup>	-	-	0.888	0.112	-	-
Total β – activity	Bq/dm <sup>3</sup>	2 <sup>1</sup>		0.113	0.092	-	-
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	110	-	-
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	5	-	-
Lead content	μg/dm <sup>3</sup>	30	200	-	5	-	-

**Table 3-1 Results for samples test from test pit No 122.**

Monitored indicator	Unit	Limit envir.content	Contaminatio n limit	I-st trimestre	II-nd trimest re	III-rd trimest re	IV-th trimest re
Water table	m	-	-	7.5	7.25	7.6	-
pH	-	≥ 6.5 and ≤ 9.5		7.63	7.68	8.16	8.04
Dissolved solids	mg/dm <sup>3</sup>	500	1000	<b>1164</b>	<b>1163</b>	<b>1150</b>	<b>1183</b>
Chlor-ion content	mg/dm <sup>3</sup>	30	100	56	53.3	61.1	57.4
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	150	104	145	<b>205</b>
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.013	0.02	< 0.001	0.012
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.01	0.019	0.018	0.02
Nitrates content	mg/dm <sup>3</sup>	10	30	26.5	<b>31.1</b>	<b>38.2</b>	<b>34.8</b>
Permang.oxidation	mg/dm <sup>3</sup>	-	-	1.39	0.56	1.34	3.1
Total β – activity	Bq/dm <sup>3</sup>	2		0.491	0.526	0.433	0.116
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	90	75	<b>329</b>
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	< 5	< 5	< 5
Lead content	μg/dm <sup>3</sup>	30	200	-	< 5	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.052	-
Cadmium content	μg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	μg/dm <sup>3</sup>	10	30	-	-	0.6	-
Copper content	μg/dm <sup>3</sup>	30	100	-	-	5	-
Zink content	μg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	μg/dm <sup>3</sup>	5	50	-	-	14	-
Nikel content	μg/dm <sup>3</sup>	20	100	-	-	2	-
Cobalt content	μg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	μg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-2 Results for samples test from test pit No 127.**

Monitored indicator	Unit	Limit envir.content	Contaminatio n limit	I-st trimestre	II-nd trimest re	III-rd trimest re	IV-th trimest re
Water table	m	-	-	0.95	1.2	1.05	-
pH	-	≥ 6,5 and ≤ 9,5		7.78	8.02	8.1	7.7
Dissolved solids	mg/dm <sup>3</sup>	500	1000	312	609	523	221
Chlor-ion content	mg/dm <sup>3</sup>	30	100	29	97.8	65.4	14.9

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	27.8	45.1	44.1	16.8
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.027	0.012	< 0.001	0.031
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.048	0.018	0.015	0.07
Nitrates content	mg/dm <sup>3</sup>	10	30	8.94	12.3	14.6	12.3
Permang.oxidation	mg/dm <sup>3</sup>	-	-	2.32	1.92	3.68	1.58
Total β – activity	Bq/dm <sup>3</sup>	2		0.744	1.302	1.277	0.66
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	90	82	<b>917</b>
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	< 5	< 5	14
Lead content	μg/dm <sup>3</sup>	30	200	-	< 5	< 5	10
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.273	-
Cadmium content	μg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	μg/dm <sup>3</sup>	10	30	-	-	3.9	-
Copper content	μg/dm <sup>3</sup>	30	100	-	-	6	-
Zink content	μg/dm <sup>3</sup>	200	1000	-	-	11	-
Chrome content	μg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	μg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	μg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	μg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-3 Results for samples test from test pit No 334.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	5.95	6.7	7.1	-
pH	-	≥ 6,5 and ≤ 9,5		7.57	7.85	8.16	7.58
Dissolved solids	mg/dm <sup>3</sup>	500	1000	648	651	636	653
Chlor-ion content	mg/dm <sup>3</sup>	30	100	12.8	14.9	16.1	12.7
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	65.6	64.4	72.6	71.9
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	< 0.001	0.029	0.049	0.009
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.016	0.002	0.007	0.025
Nitrates content	mg/dm <sup>3</sup>	10	30	<b>41.7</b>	<b>40.4</b>	<b>62.3</b>	<b>58.8</b>
Permang.oxidation	mg/dm <sup>3</sup>	-	-	0.6	0.232	2.27	0.768
Total β – activity	Bq/dm <sup>3</sup>	2		0.135	0.105	0.125	0.091
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	140	125	<b>280</b>
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	6	< 5	< 5
Lead content	μg/dm <sup>3</sup>	30	200	-	< 5	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.061	-
Cadmium content	μg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	μg/dm <sup>3</sup>	10	30	-	-	1.2	-
Copper content	μg/dm <sup>3</sup>	30	100	-	-	3	-
Zink content	μg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	μg/dm <sup>3</sup>	5	50	-	-	7	-
Nikel content	μg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	μg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	μg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-4 Results for samples test from test pit No 422.**

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	7.6	6	-	-
pH	-	≥ 6,5 and ≤ 9,5		<b>9.6</b>	<b>10.43</b>	-	-
Dissolved solids	mg/dm <sup>3</sup>	500	1000	411	395	-	-
Chlor-ion content	mg/dm <sup>3</sup>	30	100	19.1	21.3	-	-
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	123	79.5	-	-
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.025	0.122	-	-
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.095	<b>0.360</b>	-	-
Nitrates content	mg/dm <sup>3</sup>	10	30	8.49	8.68	-	-
Permang.oxidation	mg/dm <sup>3</sup>	-	-	2.13	3.15	-	-
Total β – activity	Bq/dm <sup>3</sup>	2		0.423	0.105	-	-
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	125	-	-
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	< 5	-	-
Lead content	µg/dm <sup>3</sup>	30	200	-	< 5	-	-

**Table 3-5 Results for samples test from test pit No 632.**

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	5.5	-	-
pH	-	≥ 6,5 and ≤ 9,5		8.09	9.03	-	-
Dissolved solids	mg/dm <sup>3</sup>	500	1000	244	332	-	-
Chlor-ion content	mg/dm <sup>3</sup>	30	100	10.6	18.4	-	-
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	73.9	102	-	-
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.001	0.094	-	-
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.074	<b>0.127</b>	-	-
Nitrates content	mg/dm <sup>3</sup>	10	30	5.53	3.55	-	-
Permang.oxidation	mg/dm <sup>3</sup>	-	-	1.94	1.37	-	-
Total β – activity	Bq/dm <sup>3</sup>	2		0.134	0.106	-	-
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	100	-	-
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	< 5	-	-
Lead content	µg/dm <sup>3</sup>	30	200	-	< 5	-	-

**Table 3-6 Results for samples test from test pit No 834.**

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	7.5	6.3	8.05	-
pH	-	≥ 6,5 and ≤ 9,5		7.33	7.68	7.62	7.38
Dissolved solids	mg/dm <sup>3</sup>	500	1000	672	698	701	716
Chlor-ion content	mg/dm <sup>3</sup>	30	100	< 10	< 10	< 10	7.09
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	36.9	39.1	32.1	25.1
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.013	0.042	0.011	0.011
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.01	< 0.001	0.002	0.006
Nitrates content	mg/dm <sup>3</sup>	10	30	13	14.5	<b>44.7</b>	13.4
Permang.oxidation	mg/dm <sup>3</sup>	-	-	1.02	0.304	2.05	0.92
Total β – activity	Bq/dm <sup>3</sup>	2		0.16	0.078	0.066	0.107
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	85	110	83
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	< 5	< 5	< 5
Lead content	µg/dm <sup>3</sup>	30	200	-	< 5	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.028	-
Cadmiun content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	1.6	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	3	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	6	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-7 Results for samples test from test pit No Cp-3.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	7.5	5.4	7.8	-
pH	-	≥ 6,5 and ≤ 9,5		7.55	8.01	7.82	7.76
Dissolved solids	mg/dm <sup>3</sup>	500	1000	687	703	<b>1642</b>	969
Chlor-ion content	mg/dm <sup>3</sup>	30	100	36.9	67.3	13.5	63.8
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	<b>221</b>	121	<b>204</b>	<b>222</b>
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	< 0.001	0.046	0.108	0.003
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.021	0.024	0.021	0.017
Nitrates content	mg/dm <sup>3</sup>	10	30	<b>43.3</b>	<b>47</b>	<b>51.3</b>	<b>38.5</b>
Permang.oxidation	mg/dm <sup>3</sup>	-	-	1.18	0.464	1.59	0.65
Total β – activity	Bq/dm <sup>3</sup>	2		< 0.014	< 0.019	0.042	0.115
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	120	<b>380</b>	199
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	< 5	< 5	< 5
Lead content	µg/dm <sup>3</sup>	30	200	-	< 5	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	< 0.005	-
Cadmium content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	2	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	5	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	26	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-8 Results for samples test from test pit No Cw-4.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	6.2	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	8.26	7.94
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	742	717
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	23.5	20.6
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	83.3	64.9
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	< 0.001	0.002
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.007	0.120
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	19.6	20.1
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	1.28	1.06
Total β – activity	Bq/dm <sup>3</sup>	2		2	-	0.117	0.117
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	55	<b>300</b>

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	< 5	6
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.11	-
Cadmium content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	0.6	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	4	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	3	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-9 Results for samples test from test pit No 114 (NEW).**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	7.5	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	7.35
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	638	630
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	26	21.9
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	52.2	46.8
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	0.008	0.013
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.013	0.04
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	<b>56.3</b>	< 0.003
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	1.18	0.904
Total β – activity	Bq/dm <sup>3</sup>	2	-	2	-	0.067	0.113
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	< 50	<b>455</b>
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	< 5	< 5
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.205	-
Cadmium content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	0.6	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	3	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-10 Results for samples test from test pit No 121 (NEW).**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	7.6	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	7.72
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	<b>1650</b>	<b>1870</b>
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	<b>361</b>	<b>368</b>
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	<b>174</b>	<b>180</b>
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	< 0.001	0.006
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.006	0.031

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	110	0.409
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	1.22	0.568
Total β – activity	Bq/dm <sup>3</sup>	2		-	-	-	0.279
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	56	250
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	< 5
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.073	-
Cadmium content	μg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	μg/dm <sup>3</sup>	10	30	-	-	1.6	-
Copper content	μg/dm <sup>3</sup>	30	100	-	-	3	-
Zinc content	μg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	μg/dm <sup>3</sup>	5	50	-	-	10	-
Nikel content	μg/dm <sup>3</sup>	20	100	-	-	2	-
Cobalt content	μg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	μg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-11 Results for samples test from test pit No 135 (NEW).**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	7.9	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	7.53
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	484	405
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	22.5	18.4
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	46.3	25.8
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	1.86	0.015
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.009	0.021
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	16	10.2
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	1.94	0.6
Total β – activity	Bq/dm <sup>3</sup>	2		-	-	-	0.074
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	63	279
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	< 5
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.037	-
Cadmium content	μg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	μg/dm <sup>3</sup>	10	30	-	-	0.3	-
Copper content	μg/dm <sup>3</sup>	30	100	-	-	5	-
Zinc content	μg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	μg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	μg/dm <sup>3</sup>	20	100	-	-	2	-
Cobalt content	μg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	μg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-12 Results for samples test from test pit No 213 (NEW).**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	7.15	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	8.25
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	649	654

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	43	43.9
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	73.4	67
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	0.074	0.035
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.034	0.082
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	<b>31.4</b>	<b>30.4</b>
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	4.97	0.616
Total β – activity	Bq/dm <sup>3</sup>	2		-	-	-	0.097
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	< 50	<b>830</b>
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	10
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.15	-
Cadmium content	μg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	μg/dm <sup>3</sup>	10	30	-	-	3.6	-
Copper content	μg/dm <sup>3</sup>	30	100	-	-	4	-
Zink content	μg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	μg/dm <sup>3</sup>	5	50	-	-	21	-
Nikel content	μg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	μg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	μg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-13 Results for samples test from test pit No 237 (NEW).**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	7.6	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	9.14
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	418	409
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	11.1	12.1
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	<b>166</b>	<b>153</b>
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	0.054	0.009
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.02	0.085
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	24.3	13.6
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	4.49	3.46
Total β – activity	Bq/dm <sup>3</sup>	2		-	-	-	0.098
Ferrous content /total/	μg/dm <sup>3</sup>	50	200	-	-	59	92
Mangan. content /total/	μg/dm <sup>3</sup>	20	50	-	-	< 5	< 5
Lead content	μg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.113	-
Cadmium content	μg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	μg/dm <sup>3</sup>	10	30	-	-	8.7	-
Copper content	μg/dm <sup>3</sup>	30	100	-	-	6	-
Zink content	μg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	μg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	μg/dm <sup>3</sup>	20	100	-	-	6	-
Cobalt content	μg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	μg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-14 Results for samples test from test pit No 512 (NEW)**

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	8.05	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	7.91
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	555	497
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	39.8	26.2
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	<b>160</b>	113
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	0.017	0.009
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.014	0.03
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	15.7	5.39
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	1.94	1.86
Total β – activity	Bq/dm <sup>3</sup>	2		-	-	-	0.356
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	< 50	<b>213</b>
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	12	35
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.116	-
Cadmiun content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	3.6	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	4	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-15 Results for samples test from test pit No 614 (NEW).**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	8	-
pH	-	≥ 6,5 and ≤ 9,5		-	-	8.04	8.04
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	792	847
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	90.7	69.5
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	40.4	71.1
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	<b>1.24</b>	0.474
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	1.12	0.072
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	14.1	28.5
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	5.25	1.78
Total β – activity	Bq/dm <sup>3</sup>	2		-	-	-	0.079
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	62	<b>219</b>
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	<b>68</b>	<b>59</b>
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	1.43	-
Cadmiun content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	5.8	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	3	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	< 1	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-16 Results for samples test from test pit No 735 (NEW).**

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro. content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	8.1	7.9
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	7.58
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	503	623
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	17.7	29.8
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	53.5	90.8
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	0.051	< 0.003
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.01	0.021
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	5.85	15.1
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	4.15	2.46
Total β – activity	Bq/dm <sup>3</sup>	2	-	-	-	-	0.099
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	< 50	153
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	<b>120</b>	28
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.15	-
Cadmiun content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	0.7	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	7	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	< 5	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	< 5	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	3	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-17 Results for samples test from test pit No P-1 (NEW).**

Monitored indicator	Unit	Limit enviro. content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	10.4	10.1
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	7.63
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	<b>1220</b>	<b>1379</b>
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	<b>159</b>	<b>167</b>
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	<b>239</b>	<b>293</b>
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	0.042	< 0.003
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	0.052	0.009
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	<b>55.7</b>	<b>69</b>
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	4.23	1.43
Total β – activity	Bq/dm <sup>3</sup>	2	-	-	-	-	0.105
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	< 50	88
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	< 5	< 5
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.162	-
Cadmiun content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	0.6	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	7	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	14	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	23	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	4	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-18 Results for samples test from test pit No P-2 (NEW).**

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	-	-	11.2	10.5
pH	-	≥ 6,5 and ≤ 9,5		-	-	-	7.84
Dissolved solids	mg/dm <sup>3</sup>	500	1000	-	-	<b>1076</b>	<b>1160</b>
Chlor-ion content	mg/dm <sup>3</sup>	30	100	-	-	47.5	60.9
Sulphat-ion content	mg/dm <sup>3</sup>	50	150	-	-	106	<b>164</b>
Nitrogen-ion content	mg/dm <sup>3</sup>	0.12	1.2	-	-	0.243	0.004
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	-	-	1.14	0.023
Nitrates content	mg/dm <sup>3</sup>	10	30	-	-	12.9	14.9
Permang.oxidation	mg/dm <sup>3</sup>	-	-	-	-	3.65	1.34
Total β – activity	Bq/dm <sup>3</sup>	2		-	-	-	0.092
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	-	-	< 50	81
Mangan. content /total/	µg/dm <sup>3</sup>	20	50	-	-	<b>467</b>	<b>129</b>
Lead content	µg/dm <sup>3</sup>	30	200	-	-	< 5	< 5
Phosphate content	mg/dm <sup>3</sup>	0.1	1	-	-	0.116	-
Cadmiun content	µg/dm <sup>3</sup>	1	5	-	-	< 1	-
Arsenic content	µg/dm <sup>3</sup>	10	30	-	-	0.9	-
Copper content	µg/dm <sup>3</sup>	30	100	-	-	7	-
Zink content	µg/dm <sup>3</sup>	200	1000	-	-	9	-
Chrome content	µg/dm <sup>3</sup>	5	50	-	-	9	-
Nikel content	µg/dm <sup>3</sup>	20	100	-	-	6	-
Cobalt content	µg/dm <sup>3</sup>	5	100	-	-	< 1	-
Mercury	µg/dm <sup>3</sup>	0.5	2	-	-	< 0.3	-

**Table 3-19 Results for samples test from test pit No P-3 (NEW)**

**P16Del09Rev02\_EIA\_R – Chapter 11**

**4. SUMMARY RESULTS FROM CHEMICAL ANALYSES OF INTAKEN GROUNDWATER FOR 2008**

No	Indicator	Unit	SW “Valiata”	SW “Taney5”	SPS1	SPS2	SPS3	SPS4	SPS5	SPS6	Regulatory limit
1.	Electrical conductivity	$\mu\text{S cm}^{-1}$	1151	741	1085	681	650	939	836	767	2000
2.	General hardness	$\text{mg}\Sigma\text{qv/l}$	8.67	7.24	10.41	6.84	6.73	10.1	8.97	7.65	12
3.	Permangan.oxidation	$\mu\text{g O}_2/\text{dm}^3$	0.39	1.63	1.45	1.45	1.52	1.74	1.6	1.49	5.0
4.	pH	pH value	7.53	7.36	7.65	7.51	7.61	7.52	7.48	7.75	$\geq 6,5$ and $\leq 9,5$
5.	Ammonia-ions	$\text{mg}/\text{dm}^3$	< 0.013	< 0.013	0.158	< 0.013	< 0.013	0.125	< 0.013	< 0.013	0.50
6.	Nitrates	$\text{mg}/\text{dm}^3$	18.1	< 0.4	29.7	4.7	< 0.4	1	< 0.4	1	50.0
7.	Nitrites	$\text{mg}/\text{dm}^3$	0.017	0.96	0.019	0.016	0.015	0.017	0.015	0.016	0.50
8.	Sulphates	$\text{mg}/\text{dm}^3$	82.7	41.6	128.8	56.8	54.7	157.2	106.6	70.8	250
9.	Chlorides	$\text{mg}/\text{dm}^3$	127.8	34.8	55.4	15.6	22	29.8	26.3	22.7	250
10.	Phosphates	$\text{mg}/\text{dm}^3$	0.06	< 0.03	< 0.03	0.06	< 0.03	0.03	0.05	< 0.03	0.50
11.	Copper	$\text{mg}/\text{dm}^3$	0.0035	< 0.002	< 0.002	0.0029	0.0024	< 0.002	0.0036	0.0037	2.0
12.	Lead	$\mu\text{g}/\text{dm}^3$	< 10	< 10	< 10	< 10	10	< 10	10	11	10
13.	Iron	$\mu\text{g dm}^3$	30.4	3855	91.3	42	90.8	231.5	167.4	20.2	200
14.	Magnesium	$\text{mg dm}^3$	55.8	25.4	67	34.1	42.5	41.6	45.3	34.7	80
15.	Manganese	$\mu\text{g}/\text{dm}^3$	3	1466	5.5	20	20.4	25.6	10.4	2.5	50
16.	Boron	$\text{mg}/\text{dm}^3$	0.0534	0.0405	0.0362	0.0254	0.0182	0.0177	0.0185	0.019	1.0

**5. SUMMARY RESULTS FROM PHYSICAL AND CHEMICAL TESTS OF WASTE AND GROUNDWATER OF THE REPOSITORY FOR CONVENTIONAL MUNICIPAL AND INDUSTRIAL WASTES (RCMIW) FOR 2006**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre
pH	-	7.71	7.29	7.52	-
Suspended solids	mg/dm <sup>3</sup>	166	178	101	-
Oil products content	mg/dm <sup>3</sup>	0.21	0.105	0.068	-
Ferrous /total/ content	mg/dm <sup>3</sup>	8.27	1.25	1.55	-
Copper content	mg/dm <sup>3</sup>	0.017	0.009	0.016	-
Chrome /total/ content	mg/dm <sup>3</sup>	<0.01	0.017	0.013	-
Zinc content	mg/dm <sup>3</sup>	0.085	0.066	0.076	-

**Table 5-1 Results for samples test from inspection pit (IP) – 4 (leachate).**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre
pH	-	7.68	7.73	8.32	7.86
Suspended solids	mg/dm <sup>3</sup>	43	72	59	101
Oil products content	mg/dm <sup>3</sup>	0.14	0.175	0.107	0.980
Ferrous /total/ content	mg/dm <sup>3</sup>	0,69	0,423	0.49	0,47
Copper content	mg/dm <sup>3</sup>	0.012	0.008	0.007	0.007
Chrome /total/ content	mg/dm <sup>3</sup>	<0.01	<0.01	<0.01	<0.01
Zinc content	mg/dm <sup>3</sup>	0.055	0.028	0.044	0.019

**Table 5-2 Results for samples test from inspection pit (IP) – 7.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	1.90	2.10	2.60	2.30
Temperature	°C	-	-	12.5	13.9	12.8	15.4
pH	-	≥ 6,5 and ≤ 9,5		7.34	8.01	8.15	8.44
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.01	0.014	0.005	<0.003
Nitrates content	mg/dm <sup>3</sup>	10	30	8.17	10.6	12.9	24.1
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.016	0.021	0.034	0.013
Dissolved solids	mg/dm <sup>3</sup>	500	1000	498	453	538	503
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	272	204	73.8	58.4
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.137	0.033	0.626	0.066
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	124	29.8	26.9	26.2
Arsenic content	µg/dm <sup>3</sup>	10	30	0.3	0.3	< 1	1.1
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	491	161	60	50
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	371	44	12	< 5
Copper content	µg/dm <sup>3</sup>	30	100	6	3	4	5
Nikel content	µg/dm <sup>3</sup>	20	100	5	4	3	3
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	20	< 5	< 5	< 5
Zink content	µg/dm <sup>3</sup>	200	1000	53	34	33	7
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	< 0.3	< 0.3

**P16Del09Rev02\_EIA\_R – Chapter 11**

**Table 5-3 Results for samples test from test pit N 1.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	1.60	1.95	2.30	2.12
Temperature	°C	-	-	12.6	14	13	15.2
pH	-	≥ 6.5 and ≤ 9.5		7.31	7.86	7.99	7.8
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.013	0.012	< 0.003	0.003
Nitrates content	mg/dm <sup>3</sup>	10	30	1.2	0.056	0.531	0.775
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.059	0.018	0.015	0.176
Dissolved solids	mg/dm <sup>3</sup>	500	1000	501	641	669	524
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	62.7	30.5	32.8	30.5
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.08	0.006	0.196	0.012
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	43.9	47.5	47.5	48.2
Arsenic content	µg/dm <sup>3</sup>	10	30	0,7	1,6	1,1	1,7
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	431	344	130	300
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	83	104	15	66
Copper content	µg/dm <sup>3</sup>	30	100	8	3	3	6
Nikel content	µg/dm <sup>3</sup>	20	100	1	3	1	2
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	7	< 5	< 5	< 5
Zink content	µg/dm <sup>3</sup>	200	1000	10	17	39	18
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	0.4	< 0.3

**Table 5-4 Results for samples test from test pit N 2.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	1.70	1.98	2.46	2.43
Temperature	°C	-	-	10.6	12.4	12.9	15.7
pH	-	≥ 6.5 and ≤ 9.5		7.62	7.73	7.66	7.69
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0,037	0.031	0.068	0.263
Nitrates content	mg/dm <sup>3</sup>	10	30	0.258	2.09	7.09	9.08
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.051	0.037	0.178	0.309
Dissolved solids	mg/dm <sup>3</sup>	500	1000	529	577	700	584
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	42.9	277	90.1	75.2
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.409	0.117	0.948	0.029
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	35.5	20.6	27.6	33.3
Arsenic content	µg/dm <sup>3</sup>	10	30	1.7	1.7	3	4.2
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	692	246	80	130
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	59	9	196	371

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Copper content	µg/dm <sup>3</sup>	30	100	5	5	6	5
Nikel content	µg/dm <sup>3</sup>	20	100	2	2	3	9
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	6	< 5	< 5	7
Zink content	µg/dm <sup>3</sup>	200	1000	60	35	51	27
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	0.8	< 0.3

**Table 5-5 Results for samples test from test pit N 3.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	2.15	2.50	3.00	2.74
Temperature	°C	-	-	10.9	14	12.5	15.9
pH	-	≥ 6.5 and ≤ 9.5		7.19	7.57	7.63	7.53
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.005	0.23	0.117	< 0.003
Nitrates content	mg/dm <sup>3</sup>	10	30	2.05	3.16	1.63	0.353
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.014	0.083	0.019	0.176
Dissolved solids	mg/dm <sup>3</sup>	500	1000	662	869	635	619
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	133	358	85.9	59.5
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.103	0.215	0.407	0.039
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	29.1	39	41.8	39.7
Arsenic content	µg/dm <sup>3</sup>	10	30	0.6	0.9	0.5	1.3
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	293	151	60	70
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	21	76	100	33
Copper content	µg/dm <sup>3</sup>	30	100	9	3	3	6
Nikel content	µg/dm <sup>3</sup>	20	100	2	4	2	3
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	12	6	< 5	6
Zink content	µg/dm <sup>3</sup>	200	1000	33	33	44	27
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	< 0.3	< 0.3

**Table 5-6 Results for samples test from test pit N 4.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	1.87	2.10	2.40	2.30
Temperature	°C	-	-	13.1	14.4	12.7	15.4
pH	-	≥ 6.5 and ≤ 9.5		7.39	7.45	7.71	7.62
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.017	0.007	< 0.003	< 0.003
Nitrates content	mg/dm <sup>3</sup>	10	30	< 0.003	0.240	0.620	0.733
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.02	0.026	0.01	0.100
Dissolved solids	mg/dm <sup>3</sup>	500	1000	530	625	530	558

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	41.2	18.6	38.6	32.6
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.107	0.015	0.189	0.128
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	48.9	46.1	48.2	46.1
Arsenic content	µg/dm <sup>3</sup>	10	30	1.5	1.2	0.9	1.7
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	660	277	130	70
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	56	48	39	35
Copper content	µg/dm <sup>3</sup>	30	100	4	3	2	7
Nikel content	µg/dm <sup>3</sup>	20	100	2	< 1	2	1
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	< 5	< 5	< 5	6
Zink content	µg/dm <sup>3</sup>	200	1000	25	40	39	28
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	< 0.3	< 0.3

**Table 5-7 Results for samples test from test pit No 5.**

**6. SUMMARY RESULTS FROM PHYSICAL AND CHEMICAL TESTS OF WASTE AND GROUNDWATER OF THE REPOSITORY FOR CONVENTIONAL MUNICIPAL AND INDUSTRIAL WASTES (RCMIW) FOR 2007**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre
pH	-	7.41	7.09	8.05	7.88
Suspended solids	mg/dm <sup>3</sup>	72	84	63	30
Oil products content	mg/dm <sup>3</sup>	0.139	0.15	0.274	0.308
Ferrous /total/ content	mg/dm <sup>3</sup>	0.52	0.53	0.249	3.4
Copper content	mg/dm <sup>3</sup>	0.016	0.009	0.005	0.012
Chrome /total/ content	mg/dm <sup>3</sup>	< 0.01	0.012	< 0.01	0.011
Zinc content	mg/dm <sup>3</sup>	0.061	0.061	0.021	0.049

**Table 6-1 Results for samples test from inspection pit (IP) – 4 (leachate)**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre
pH	-	7.63	7.58	8.21	8.32
Suspended solids	mg/dm <sup>3</sup>	68	63	70	36
Oil products content	mg/dm <sup>3</sup>	0.277	0.35	0.321	0.266
Ferrous /total/ content	mg/dm <sup>3</sup>	0.175	0.18	0.095	1.86
Copper content	mg/dm <sup>3</sup>	0.006	0.004	0.009	0.01
Chrome /total/ content	mg/dm <sup>3</sup>	< 0.01	< 0.01	< 0.01	< 0.01
Zinc content	mg/dm <sup>3</sup>	0.022	< 0.005	0.034	0.043

**Table 6-2 Results for samples test from inspection pit (IP) – 7 (RCMIW site)**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	2.24	2.5	2.5	2.3
Temperature	°C	-	-	9.8	16	-	-
pH	-	≥ 6,5 and ≤ 9,5		7.38	7.25	8.02	7.56
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.021	0.016	0.026	0.025
Nitrates content	mg/dm <sup>3</sup>	10	30	20.9	14.6	0.352	9.2
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.005	0.127	0.11	0.004
Dissolved solids	mg/dm <sup>3</sup>	500	1000	581	595	690	581
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	43.9	46.6	34.7	47.9
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.055	0.027	0.23	0.306
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	29.7	31.9	70.9	31.9
Arsenic content	µg/dm <sup>3</sup>	10	30	0.8	0.2	0.6	0.4
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	60	80	61.4	55
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	< 5	< 5	37	< 5
Copper content	µg/dm <sup>3</sup>	30	100	3	7	6	6
Nikel content	µg/dm <sup>3</sup>	20	100	2	4	4	4
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	< 5	< 5	6	< 5
Zink content	µg/dm <sup>3</sup>	200	1000	15	< 5	9	12
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	< 0.3	< 0.3

**P16Del09Rev02\_EIA\_R – Chapter 11**

**Table 6-3 Results for samples test from test pit No 1.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	2	2.9	3	2.1
Temperature	°C	-	-	10	15.8	-	-
pH	-	≥ 6.5 and ≤ 9.5		7.44	8.55	8.18	7.48
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.079	0.043	0.056	0.02
Nitrates content	mg/dm <sup>3</sup>	10	30	1.64	9.72	< 0.003	1.41
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.008	0.011	0.034	0.052
Dissolved solids	mg/dm <sup>3</sup>	500	1000	516	550	678	511
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	17.9	29.9	77.3	17.1
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.033	< 0.001	< 0.005	0.360
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	48.2	49.6	45.4	49.6
Arsenic content	µg/dm <sup>3</sup>	10	30	2.2	0.6	2.4	2
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	< 50	220	< 50	277
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	94	57	36	28
Copper content	µg/dm <sup>3</sup>	30	100	5	3	6	6
Nikel content	µg/dm <sup>3</sup>	20	100	4	1	3	< 1
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	< 5	< 5	< 5	< 5
Zink content	µg/dm <sup>3</sup>	200	1000	15	< 5	10	29
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	< 0.3	< 0.3

**Table 6-4 Results for samples test from test pit No 2.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	2.1	-	-	-
Temperature	°C	-	-	10.7	15.7	-	-
pH	-	≥ 6.5 and ≤ 9.5		7.75	8.83	-	-
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.039	0.622	-	-
Nitrates content	mg/dm <sup>3</sup>	10	30	7.75	6.17	-	-
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.037	0.149	-	-
Dissolved solids	mg/dm <sup>3</sup>	500	1000	254	533	-	-
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	12.4	30.7	-	-
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.154	0.069	-	-
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	24.8	14.2	-	-
Arsenic content	µg/dm <sup>3</sup>	10	30	1.9	0.7	-	-
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	80	230	-	-
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	-	-
Mangan. /total/	µg/dm <sup>3</sup>	20	50	8	575	-	-

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Copper content	µg/dm <sup>3</sup>	30	100	9	2	-	-
Nikel content	µg/dm <sup>3</sup>	20	100	2	1	-	-
Lead content	µg/dm <sup>3</sup>	30	200	< 5	7	-	-
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	< 5	< 5	-	-
Zink content	µg/dm <sup>3</sup>	200	1000	22	18	-	-
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	-	-
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	-	-

**Table 6-5 Results for samples test from test pit No 3.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	2.6	2.4	2.7	2.5
Temperature	°C	-	-	10.1	16.4	-	-
pH	-	≥ 6.5 and ≤ 9.5		7.34	8.84	8.09	8.03
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.089	0.141	< 0.003	0.01
Nitrates content	mg/dm <sup>3</sup>	10	30	0.573	3.26	4.65	14.9
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.013	0.069	0.008	0.009
Dissolved solids	mg/dm <sup>3</sup>	500	1000	602	696	497	694
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	44.2	53.5	19.4	75.7
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.046	0.019	0.021	0.35
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	40.4	37.6	53.2	45.4
Arsenic content	µg/dm <sup>3</sup>	10	30	1.2	1	1.5	1.5
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	110	110	< 50	172
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	65	204	8	97
Copper content	µg/dm <sup>3</sup>	30	100	2	2	8	6
Nikel content	µg/dm <sup>3</sup>	20	100	4	2	3	3
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	< 5	< 5	< 5	< 5
Zink content	µg/dm <sup>3</sup>	200	1000	19	7	23	14
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	< 0.3	< 0.3

**Table 6-6 Results for samples test from test pit No 4.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	2.27	2.6	2.9	2.2
Temperature	°C	-	-	10.4	17.1	-	-
pH	-	≥ 6.5 and ≤ 9.5		7.45	8.78	8.16	7.61
Amonia-ion content	mg/dm <sup>3</sup>	0.12	1.2	0.438	0.042	< 0.003	0.022
Nitrates content	mg/dm <sup>3</sup>	10	30	0.850	1.1	1.17	7.46
Nitrites content	mg/dm <sup>3</sup>	0.025	0.125	0.013	0.054	0.04	0.011
Dissolved solids	mg/dm <sup>3</sup>	500	1000	516	576	553	513

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Sulphate-ions content	mg/dm <sup>3</sup>	50	150	19.8	31	50.7	21.2
Phosphates content	mg/dm <sup>3</sup>	0.1	1	0.018	0.008	0.042	0.328
Chlorine-ions content	mg/dm <sup>3</sup>	30	100	46.1	50.3	36.2	48.9
Arsenic content	µg/dm <sup>3</sup>	10	30	1.9	1.2	1.5	2.2
Ferrous content /total/	µg/dm <sup>3</sup>	50	200	150	290	147	334
Cadmium content	µg/dm <sup>3</sup>	1	5	< 1	< 1	< 1	< 1
Mangan. /total/	µg/dm <sup>3</sup>	20	50	65	90	< 5	40
Copper content	µg/dm <sup>3</sup>	30	100	5	3	10	3
Nikel content	µg/dm <sup>3</sup>	20	100	3	2	5	7
Lead content	µg/dm <sup>3</sup>	30	200	< 5	< 5	< 5	< 5
Chrome /tot/ content	µg/dm <sup>3</sup>	5	50	< 5	< 5	< 5	< 5
Zink content	µg/dm <sup>3</sup>	200	1000	12	14	6	18
Cobalt content	µg/dm <sup>3</sup>	5	100	< 1	< 1	< 1	< 1
Mercury content	µg/dm <sup>3</sup>	0.5	2	< 0.3	< 0.3	< 0.3	< 0.3

**Table 6-7 Results for samples test from test pit No 5.**

Monitored indicator	Unit	Limit enviro.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	m	-	-	-	-	-	8.6
Temperature	-	≥ 6.5 and ≤ 9.5		-	-	-	7.69
pH	mg/dm <sup>3</sup>	0.12	1.2	-	-	-	< 0.003
Amonia-ion content	mg/dm <sup>3</sup>	10	30	-	-	-	0.009
Nitrates content	mg/dm <sup>3</sup>	0.025	0.125	-	-	-	32.9
Nitrites content	mg/dm <sup>3</sup>	500	1000	-	-	-	869
Dissolved solids	mg/dm <sup>3</sup>	50	150	-	-	-	39.3
Sulphate-ions content	mg/dm <sup>3</sup>	0.1	1	-	-	-	0.327
Phosphates content	mg/dm <sup>3</sup>	30	100	-	-	-	9.93
Chlorine-ions content	mg/dm <sup>3</sup>	-	-				1.77
Arsenic content	Bq/ dm <sup>3</sup>	2					0.130
Ferrous content /total/	µg/dm <sup>3</sup>	10	30	-	-	-	1
Cadmium content	µg/dm <sup>3</sup>	50	200	-	-	-	< 50
Mangan. /total/	µg/dm <sup>3</sup>	1	5	-	-	-	< 1
Copper content	µg/dm <sup>3</sup>	20	50	-	-	-	< 5
Nikel content	µg/dm <sup>3</sup>	30	100	-	-	-	4
Lead content	µg/dm <sup>3</sup>	20	100	-	-	-	3
Chrome /tot/ content	µg/dm <sup>3</sup>	30	200	-	-	-	< 5
Zink content	µg/dm <sup>3</sup>	5	50	-	-	-	7
Cobalt content	µg/dm <sup>3</sup>	200	1000	-	-	-	12
Mercury content	µg/dm <sup>3</sup>	5	100	-	-	-	< 1

Monitored indicator	Unit	Limit envir.content	Contamination limit	I-st trimestr e	II-nd trimestr e	III-rd trimestr e	IV-th trimestr e
Water table	$\mu\text{g}/\text{dm}^3$	0.5	2	-	-	-	< 0.3

**Table 6-8 Results for samples test from test pit No 944 (comparative, new) .**

**7. SUMMARY RESULTS FROM PHYSICAL AND CHEMICAL TESTS OF WASTE AND GROUNDWATER OF THE REPOSITORY FOR CONVENTIONAL MUNICIPAL AND INDUSTRIAL WASTES (RCMIW ) FOR 2008**

Indicators	Unit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
pH	-	7.57	7.15	7.31	8.22
Suspended solids	mg/dm <sup>3</sup>	24	250	145	47
Oil products	mg/dm <sup>3</sup>	0.3	0.32	0.14	0.7
Ferrous /total/ content	mg/dm <sup>3</sup>	0.471	1.86	1.06	2.83
Copper content	mg/dm <sup>3</sup>	0.0071	0.0107	0.0129	0.0084
Chrome /total/ content	mg/dm <sup>3</sup>	< 0.001	< 0.001	< 0.001	< 0.001
Zink content	mg/dm <sup>3</sup>	0.043	0.024	0.14	0.046

**Table 7-1 Results for samples test from inspection pit (IP) – 4 (leachate).**

Indicators	Unit	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
pH	-	7.42	7.76	7.8	7.73
Suspended solids	mg/dm <sup>3</sup>	41	57	68	40
Oil products	mg/dm <sup>3</sup>	0.55	0.24	0.1	1.25
Ferrous /total/ content	mg/dm <sup>3</sup>	1.76	0.245	0.182	0.989
Copper content	mg/dm <sup>3</sup>	0.0052	0.0054	0.0085	0.0081
Chrome /total/ content	mg/dm <sup>3</sup>	0.012	< 0.001	< 0.001	< 0.001
Zink content	mg/dm <sup>3</sup>	0.026	< 0.005	0.059	0.067

**Table 7-2 Results for samples test from inspection pit (IP) – 7 (RCMIW site).**

Monitored indicator	Unit	Quality standard setpoint	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	2.3	2.5	2.8	2.7
Temperature	-	≥ 6.5 and ≤ 9.5	7.38	8.47	7.35	8.13
pH	mg/dm <sup>3</sup>	0.50	0.016	0.09	0.002	< 0.0075
Amonia-ion content	mg/dm <sup>3</sup>	50	12.7	12.4	19.9	14.2
Nitrates content	mg/dm <sup>3</sup>	0.5	0.01	0.023	0.103	0.024
Nitrites content	mg/dm <sup>3</sup>	-	721	541	1181	505
Dissolved solids	mg/dm <sup>3</sup>	250	48.3	53.4	67.9	50.4
Sulphate-ions content	mg/dm <sup>3</sup>	0.5	0.058	0.099	0.009	0.014
Phosphates content	mg/dm <sup>3</sup>	250	34	26.8	28.4	26.2
Chlorine-ions content	μg/dm <sup>3</sup>	50	0.6	0.7	0.7	0.6
Arsenic content	μg/dm <sup>3</sup>	200	91.8	22	68.4	189
Ferrous content /total/	μg/dm <sup>3</sup>	5	< 1	< 1	< 1	< 1
Cadmium content	μg/dm <sup>3</sup>	50	< 5	< 5	8.1	< 5
Mangan. /total/	μg/dm <sup>3</sup>	200	3.5	4	5.2	4.5
Copper content	μg/dm <sup>3</sup>	20	2.7	4	3.9	13
Nikel content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Lead content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Chrome /tot/ content	μg/dm <sup>3</sup>	500	30	11	58	80
Zink content	μg/dm <sup>3</sup>	-	1.9	< 1	< 1	< 1
Cobalt content	μg/dm <sup>3</sup>	1	< 0.3	< 0.3	< 0.3	< 0.3

**Table 7-3 Results for samples test from test pit No 1.**

Monitored indicator	Unit	Quality standard setpoint	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	1.9	2.3	3.15	2.5

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Quality standard setpoint	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Temperature	-	≥ 6.5 and ≤ 9.5	7.23	8.36	7.68	7.85
pH	mg/dm <sup>3</sup>	0.50	0.035	0.163	0.122	0.078
Amonia-ion content	mg/dm <sup>3</sup>	50	4.72	1.9	2.67	0.874
Nitrates content	mg/dm <sup>3</sup>	0.5	0.017	0.036	0.104	0.024
Nitrites content	mg/dm <sup>3</sup>	-	536	487	1064	475
Dissolved solids	mg/dm <sup>3</sup>	250	41.1	21	39.5	18.8
Sulphate-ions content	mg/dm <sup>3</sup>	0.5	0.028	0.095	0.064	0.007
Phosphates content	mg/dm <sup>3</sup>	250	46.1	52.1	53.9	51.7
Chlorine-ions content	μg/dm <sup>3</sup>	50	1.3	1.6	3.2	1.1
Arsenic content	μg/dm <sup>3</sup>	200	430	763	745	271
Ferrous content /total/	μg/dm <sup>3</sup>	5	< 1	< 1	< 1	< 1
Cadmium content	μg/dm <sup>3</sup>	50	123	60	146	29.1
Mangan. /total/	μg/dm <sup>3</sup>	200	2.6	3	1.8	4.6
Copper content	μg/dm <sup>3</sup>	20	3.1	2	2.1	< 1
Nikel content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Lead content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Chrome /tot/ content	μg/dm <sup>3</sup>	500	20	7	65	62
Zink content	μg/dm <sup>3</sup>	-	< 1	< 1	< 1	< 1
Cobalt content	μg/dm <sup>3</sup>	1	< 0.3	< 0.3	< 0.3	< 0.3

**Table 7-4 Results for samples test from test pit No 2.**

Monitored indicator	Unit	Quality standard setpoint	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	2.5	2.6	2.8	3.0
Temperature	-	≥ 6.5 and ≤ 9.5	7.01	8.87	7.83	7.84
pH	mg/dm <sup>3</sup>	0.50	0.018	0.54	0.02	0.514
Amonia-ion content	mg/dm <sup>3</sup>	50	6.44	1.51	2.69	12
Nitrates content	mg/dm <sup>3</sup>	0.5	0.008	0.018	0.077	0.014
Nitrites content	mg/dm <sup>3</sup>	-	265	432	1222	542
Dissolved solids	mg/dm <sup>3</sup>	250	81.5	35.1	74.2	43.5
Sulphate-ions content	mg/dm <sup>3</sup>	0.5	0.046	0.099	0.024	0.026
Phosphates content	mg/dm <sup>3</sup>	250	36.8	15.8	38.9	41.8
Chlorine-ions content	μg/dm <sup>3</sup>	50	0.9	1.9	1	1.3
Arsenic content	μg/dm <sup>3</sup>	200	115	387	118	202
Ferrous content /total/	μg/dm <sup>3</sup>	5	< 1	< 1	< 1	< 1
Cadmium content	μg/dm <sup>3</sup>	50	67	97	4.2	35.6
Mangan. /total/	μg/dm <sup>3</sup>	200	3.4	8.6	1.7	4.3
Copper content	μg/dm <sup>3</sup>	20	4.4	3.8	3.4	< 1
Nikel content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Lead content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Chrome /tot/ content	μg/dm <sup>3</sup>	500	23	< 5	100	42
Zink content	μg/dm <sup>3</sup>	-	< 1	< 1	< 1	< 1
Cobalt content	μg/dm <sup>3</sup>	1	< 0.3	< 0.3	< 0.3	< 0.3

**Table 7-5 Results for samples test from test pit No 4.**

**P16Del09Rev02\_EIA\_R – Chapter 11**

Monitored indicator	Unit	Quality standard setpoint	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	2.1	2.2	2.95	2.3
Temperature	-	≥ 6.5 and ≤ 9.5	7.04	8.28	7.4	7.93
pH	mg/dm <sup>3</sup>	0.50	0.049	0.155	0.26	0.576
Amonia-ion content	mg/dm <sup>3</sup>	50	3.28	< 0.013	1.81	3.59
Nitrates content	mg/dm <sup>3</sup>	0.5	0.001	0.05	0.6	0.012
Nitrites content	mg/dm <sup>3</sup>	-	348	529	1138	498
Dissolved solids	mg/dm <sup>3</sup>	250	38.1	11.6	38.2	22.1
Sulphate-ions content	mg/dm <sup>3</sup>	0.5	0.055	0.07	0.055	0.016
Phosphates content	mg/dm <sup>3</sup>	250	51	55.3	54.6	55.3
Chlorine-ions content	μg/dm <sup>3</sup>	50	1.4	1.8	2.8	1.5
Arsenic content	μg/dm <sup>3</sup>	200	364	464	354	1164
Ferrous content /total/	μg/dm <sup>3</sup>	5	< 1	< 1	< 1	< 1
Cadmium content	μg/dm <sup>3</sup>	50	106	51	113	11.1
Mangan. /total/	μg/dm <sup>3</sup>	200	2.1	2.8	3.1	5
Copper content	μg/dm <sup>3</sup>	20	< 1	< 1	4.6	< 1
Nikel content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Lead content	μg/dm <sup>3</sup>	10	< 5	< 5	< 5	< 5
Chrome /tot/ content	μg/dm <sup>3</sup>	500	12	< 5	3.1	29
Zink content	μg/dm <sup>3</sup>	-	< 1	< 1	< 1	< 1
Cobalt content	μg/dm <sup>3</sup>	1	< 0.3	< 0.3	< 0.3	< 0.3

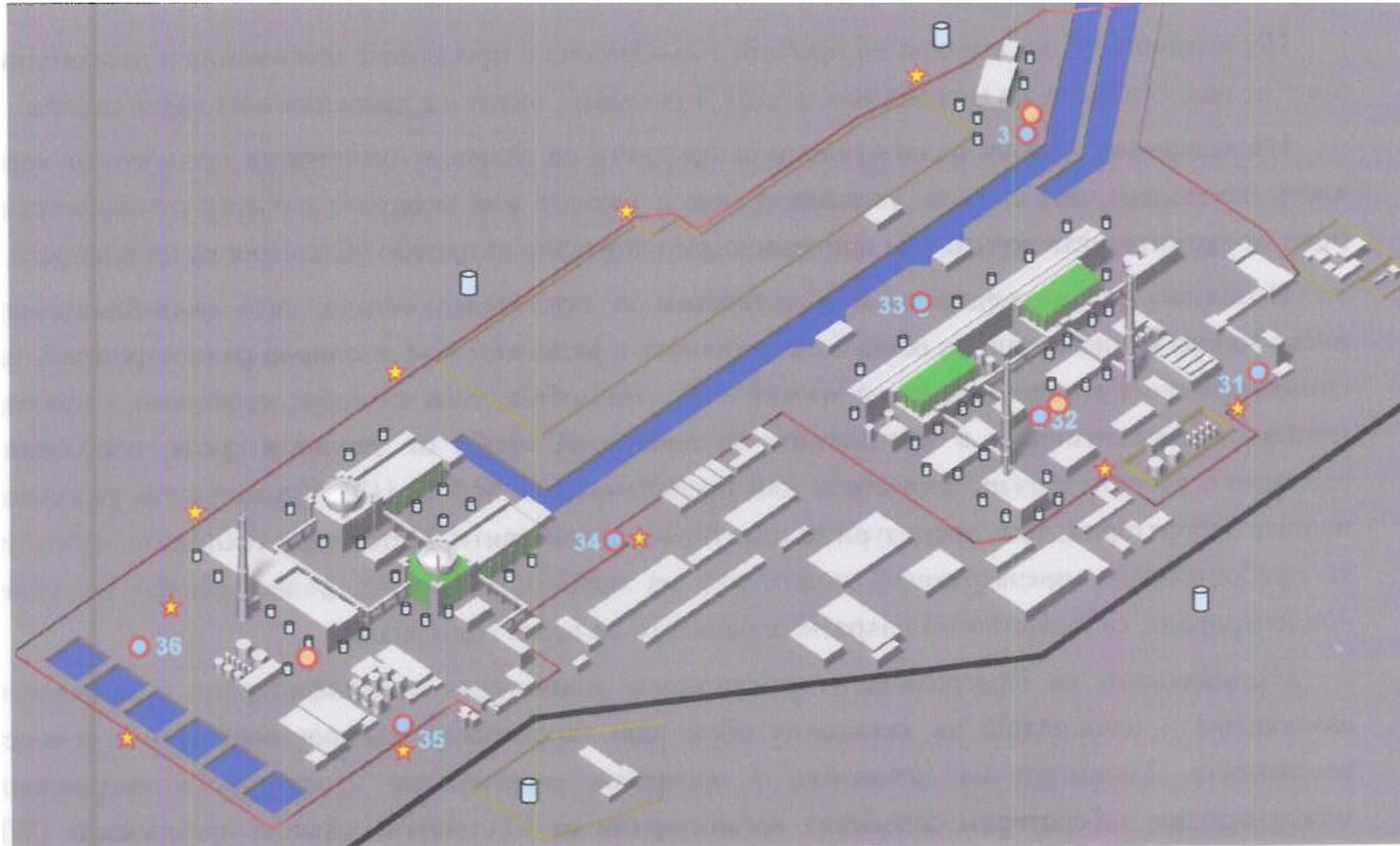
**Table 7-6 Results for samples test from test pit No 5.**

Monitored indicator	Unit	Quality standard setpoint	I-st trimestre	II-nd trimestre	III-rd trimestre	IV-th trimestre
Water table	m	-	-	9.0	-	9.2
Temperature	-	≥ 6.5 and ≤ 9.5	-	7.82	7.84	7.94
pH	mg/dm <sup>3</sup>	0.5	-	0.032	0.073	0.101
Amonia-ion content	mg/dm <sup>3</sup>	50	-	29.2	8.2	40.5
Nitrates content	mg/dm <sup>3</sup>	0.5	-	0.007	0.134	0.009
Nitrites content	mg/dm <sup>3</sup>	-	-	857	1695	777
Dissolved solids	mg/dm <sup>3</sup>	250	-	35.6	55.1	35.3
Sulphate-ions content	mg/dm <sup>3</sup>	0.5	-	0.036	0.021	0.025
Phosphates content	mg/dm <sup>3</sup>	250	-	14.2	10.6	13.5
Chlorine-ions content	μg/dm <sup>3</sup>	50	-	0.9	0.9	0.9
Arsenic content	μg/dm <sup>3</sup>	200	-	< 20	74.3	135
Ferrous content /total/	μg/dm <sup>3</sup>	5	-	< 1	< 1	< 1
Cadmium content	μg/dm <sup>3</sup>	50	-	< 5	< 5	< 5
Mangan. /total/	μg/dm <sup>3</sup>	200	-	2.4	6.1	6.1
Copper content	μg/dm <sup>3</sup>	20	-	< 1	2.2	< 1
Nikel content	μg/dm <sup>3</sup>	10	-	< 5	< 5	< 5
Lead content	μg/dm <sup>3</sup>	10	-	7.8	7	5.8
Chrome /tot/ content	μg/dm <sup>3</sup>	500	-	< 5	2.7	58
Zink content	μg/dm <sup>3</sup>	-	-	< 1	< 1	< 1
Cobalt content	μg/dm <sup>3</sup>	1	-	< 0.3	< 0.3	< 0.3

**Table 7-7 Results for samples test from test pit No 944 (comparative, new).**

**P16Del09Rev02\_EIA\_R – Chapter 11**

**8. RADIATION MONITORING CHECK POINTS FOR KOZLODUY NPP SITE**



- - B type control stations: atmosphere settlements, soils, vegetation, gamma background – 7 units
- ★ - TLE-4 type along KNPP fence – 10 units
- ☪ - over 80 test pits for monitoring of the streams discharge from site + 4 prospecting pits outside KNPP site
- - aerosols monitoring stations – 3 units

***Attachment 11.3.2 Vertebrates, inhabiting the region of Kozloduy NPP and Rare or endangered animal species habituating on the site and next to Kozloduy Nuclear Power Plant***

**Table 1 Vertebrates, inhabiting the region of Kozloduy NPP.**

Class	SPECIES		
	Bulgarian name	Latin name	
1. Fishes	Chub	<i>Leuciscus cephalus</i>	
	Russian sturgeon	<i>Acipenser guldenstedtii</i>	
	Starry sturgeon	<i>Acipenser stellatus</i>	
	hausen	<i>Huso huso</i>	
2. Amphibians	Danube herring	<i>Alosa kessleri pontica</i>	
	Great crested newt	<i>Triturus cristatus</i>	
	European Green Toad	<i>Bufo viridis</i>	
	Common Toad	<i>Bufo bufo</i>	
	Common tree frog	<i>Hyla arborea</i>	
3. Reptiles	Yellow-bellied toad	<i>Bombina variegata</i>	
	Caspian whipsnake	<i>Coluber jugularis</i>	
	Four-lined skane	<i>Elaphe quatuorlineata</i>	
	Aesculapian snake	<i>Elaphe longissima</i>	
	beorellia lucitaniae and green lizards	<i>Lacerta viridis, Lacerta muralis</i>	
	Podarcis taurica	<i>Lacerta taurica</i>	
	grass snake	<i>Natrix natrix</i>	
	Viper	<i>Vipera ammodites</i>	
4. Birds except the species in item 4.7.1.	House sparrow	<i>Passer domesticus</i>	
	Turtle-dove	<i>Streptopelia decaococto</i>	
	Magpie	<i>Pica pica</i>	
	Jay	<i>Garrulus glandarius</i>	
	Field-lark	<i>Alauda arvensis</i>	
	Crested-lark	<i>Galerida cristata</i>	
	Chaffinch	<i>Fringila coelebs</i>	
	Goldfinch	<i>Carduelis carduelis</i>	
	Blackbird	<i>Turdus merula</i>	
	Great Tit	<i>Parus major</i>	
	the Bird of Minerva	<i>Athena noctua</i>	
	Quail	<i>Coturnix coturnix</i>	
	Partridge	<i>Perdix perdix</i>	
	5. Mammalian	Hedgehog	<i>Erinaceus concolor</i>
		Molehill	<i>Talpa earopea</i>
		Field-mouse	<i>Apodemus agrarius</i>
		Common vole	<i>Microtus arvalis</i>
Hamster		<i>Citellus citellus</i>	
Water vole		<i>Arvicola terrestris</i>	
Wild rabbit		<i>Lepus europaeus</i>	
fox		<i>Vulpes vulpes</i>	
Marten		<i>Martes martes</i>	
Jackal		<i>Canis aureus</i>	
Weasel		<i>Mustela nivalis</i>	
Black polecat		<i>Putorius putorius</i>	
Wild-boar		<i>Sus scrofa</i>	
Greater mouse-eared bat	<i>Myotis myotis</i>		
Noctule bat	<i>Nyctalus noctula</i>		

**Table 2 Rare or endangered animal species habituating on the site and next to Kozloduy NPP.**

No	Categories	Animal species		Habitats
		Bulgarian name	Latin name	
1.	Rare	Common barn owl	<i>Benthophilus stellatus</i> <i>Tyto alba</i>	Danube Danube river village Orsoya
2.	Endangered	Fringebarble sturgeon	<i>Accipenser nudiventris</i>	Danube Danube river
		Burbot	<i>Lota lota</i>	Danube Danube river
		Southern ninespine stickleback	<i>Pungitius platigaster</i>	Danube Danube river
		Three-spined stickleback	<i>Gasterosteus aculeatus</i>	Danube Danube river
		Bighead goby	<i>Neogobius kessleri</i>	Danube Danube river
		Aesculapian snake	<i>Elaphe longissima</i>	Kozloduy, Oryahovo
		Glossy Ibis	<i>Plegadis falcinellus</i> *	village Island, village Orsoya
		Ferruginous duck	<i>Aythya nyroca</i>	village Orsoya
		White-tailed eagle	<i>Haliaeetus albicilla</i> *	village Dolni Tsibur, village Orsoya
		Lesser-spotted eagle	<i>Aquila pomarina</i>	Kozloduy
		Saker Falcon	<i>Falco cherrug</i> *	village Island
		Great Bustard	<i>Otis tarda</i> *	Vulchedrum, village Zlatia, village Gorni Tsibur
		Collard Pratincole	<i>Glareola pratincola</i>	village Orsoya, village Ostrov
Little Turn	<i>Sterna albifrons</i>	village Dolni Tsibur		
European Otter	<i>Lutra lutra</i> **	Kozloduy		

\* Birds included in "Endangered birds in Europe"

\*\* Included in "Endangered mammalian in Europe"

### ***Attachment 11.3.3 Characteristics of the soils in the 30-km area of Kozloduy Nuclear Power Plant site***

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
0	A.1pl.k	25	2.86	0.76	7.1	7.7	5.1	0	2.5	7.1	15.3	16.5	16.4	37.1	70	10/YR/ 2/1	Meadow-marsh slight clayey	A.1pl.k/25_A.2pl.k.g/50_A.3pl.k.g/80_4pl.k/110_	60	GLOJENE
1	A.2pl.k.g	50	2.56	1.28	7.1	7.7	6.6	0	3.5	8.2	16.6	12.8	15.5	36.8	65.1	10/YR/ 3/2			60	GLOJENE
2	A.3pl.k.g	80	2.09	0.76	7.2	7.8	6.7	0	4.7	17.5	17.6	12.7	15	37.4	65.1	10/YR/ 4/2			60	GLOJENE
3	4pl.k	110	1.28	2.29	7.2	7.8	6.3	2.8	6	8.1	17.3	13.8	15.8	29.9	59.5	10/YR/ 3/4			60	GLOJENE
4	A`orn	28	2.8	0	6.4	7.4	4	0	0	33.3	34.3	5.2	4.6	18.6	28.4	10/YR/ 3/1	Black-earth typical slight sandy-clay	A`.orn/28_A``/45_AB.k/71_BC.k/93_C1.k/122_C2.k/152_	557	GORNI VADIN
5	A``	45	2.85	0	7.6	7.6	4.1	0	0	37.6	33.8	4.8	3.5	16.2	24.5	10/YR/ 3/2			557	GORNI VADIN
6	AB.k	71	1.97	4.81	7.7	8.3	9.2	0	0	31.8	34.4	6	5.9	13.1	25	10/YR/ 3/3			557	GORNI VADIN
7	BC.k	93	1.4	12.95	7.9	8.5	20.6	0	0	28.3	30.4	4.8	3	12.9	20.7	10/YR/ 4/3			557	GORNI VADIN
8	C1.k	122	0	16.32	7.9	8.5	25.1	0	0	31.6	26.3	2.9	4	10.1	17	10/YR/ 6/4			557	GORNI VADIN
9	C2.k	152	0	20.12	8.8	8.6	14.4	0	0	39.6	29.9	4.4	2.2	9.5	16.1	10/YR/ 6/4			557	GORNI VADIN

**P16Del09Rev02\_EIA\_R – Chapter 11**

O I D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy								Soil units	Structure of the soil profile	№ of prof ile	Lands		
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 5	0,0 5- 1	0,0 0,0 05	0,0 5- 1	0,0 0,0 1					< 0,001 mm	< 0,01 mm
10	A`.k.orn	28	2.94	7.76	7.5	8.1	15	0	0	23.9	10.5	8.5	12.7	29.4	50.6	10/YR/ 3/4	Black- earth carbon ate heavy sandy- clayey	A`.k.orn/28_A`.k/45_A``.k/70_BC.k/100_C.k/120_	1	HARLEC
11	A``.k	45	2.83	8.25	7.5	8.1	14.5	0	0	21.3	9.8	8.2	19.5	26.7	54.4	10/YR/ 3/4			1	HARLEC
12	A``.k	70	2.54	11.09	7.5	8.1	16.9	0	0	14.4	14.4	9.8	17.6	26.9	54.3	10/YR/ 4/4			1	HARLEC
13	BC.k	100	1.42	11.58	7.6	8.2	20.2	0	0	21.9	33.4	6.9	4.9	12.7	24.5	10/YR/ 5/8			1	HARLEC
14	C.k	120	0	18.22	7.6	8.2	23.2	0	0	21.2	31.9	8.7	2.9	12.1	23.7	10/YR/ 5/8			1	HARLEC
15	A.1pl.k. orn	25	3.05	3.81	7.7	7.6	9	0	0	5.8	19.5	17.3	14.1	34.3	65.7	10/YR/ 4/4	Alluvial slight clayey	A.1pl.k.orn/25_A.2pl.k/53_A.3pl.k.g/70_A.4pl.k.g/95_	17	HARLEC
16	A.2pl.k	53	3.47	0.76	6.8	7.4	5.9	0	0	5.5	16.5	14.3	18.4	39.4	72.1	10/YR/ 4/4			17	HARLEC
17	A.3pl.k. g	70	3.24	0.41	6.8	7.4	6.9	0	0	11.4	34.6	18.6	10.7	17.8	47.1	10/YR/ 4/4			17	HARLEC
18	A.4pl.k. g	95	1.58	0.76	7.7	7.6	9.4	0	0	6.5	33.9	11	7.8	31.4	50.2	10/YR/ 4/4			17	HARLEC
19	A.1pl.k. orn	27	2.28	1.79	7.4	8	7.1	0	12.4	52	9.5	7.9	5.4	5.7	19	10/YR/ 3/4	Deluvia l clayey- sandy	A.1pl.k.orn/27_A.2pl.k/53_A.3pl.k/81_A.4pl.k/105_5pl.k/125_	28	HARLEC
20	A.2pl.k	53	1.95	3.81	7.5	8.1	8.6	0	13.6	51.1	7.4	6.6	3.9	8.8	19.3	10/YR/ 3/4		A.1pl.k.orn/27_A.2pl.k/53_A.3pl.k/81_A.4pl.k/105_5pl.k/125_	28	HARLEC
21	A.3pl.k	81	1.78	5.81	7.7	8.	10.2	0	14.2	44.	11.	7.5	2.5	9.6	19.6	10/YR/		A.1pl.k.orn/27_A.2pl.k/53_A.3pl.k/81_A.4pl.k/105_5pl.k/125_	28	HARLEC

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
						5	1				6	4				4/4				
22	A.4pl.k	105	1.42	6.31	7.6	8.2	8.6	0	13.6	44.8	15.4	4.9	2.9	9.8	17.6	10/YR/5/6		A.1pl.k.orn/27_A.2pl.k/53_A.3pl.k/81_A.4pl.k/105_5pl.k/125_	28	HARLEC
23	5pl.k	125	0	6.79	7.7	8.3	10.4	0	4.7	57.3	7.4	8.4	1.6	10.2	20.2	10/YR/5/6		A.1pl.k.orn/27_A.2pl.k/53_A.3pl.k/81_A.4pl.k/105_5pl.k/125_	28	HARLEC
24	A`.k).o rn	25	1.87	0.41	7.3	7.9	3.8	0	3.5	44.4	31.5	2.6	4.1	10.1	16.8	10/YR/3/3	Black- earth typical clayey- sandy	A`.k).orn/25_AB.k/52_C.k/73_	10	KOZLODUY
25	AB.k	52	1.57	4.81	7.6	8.2	8.8	0	3	56.3	17	2.7	2.2	10	14.9	10/YR/4/3		A`.k).orn/25_AB.k/52_C.k/73_	10	KOZLODUY
26	C.k	73	0	12.53	7.8	8.4	18.6	0	2.9	51.2	15.5	2.7	1.7	7.4	11.8	10/YR/5/4		A`.k).orn/25_AB.k/52_C.k/73_	10	KOZLODUY
27	A`.1pl.k .orn	28	1.53	6.79	7.4	8	15.5	0	0	41.9	26.2	2.8	2.2	11.4	16.4	10/YR/3/3	Deluvia l- meado w clayey- sandy	A`.1pl.k.orn/28_A`.2pl.k/56_A`.3pl.k/78_A`.4pl.k/102_A``` `.5pl.k/130_A`````.6pl.k/160_	9	KOZLODUY
28	A`.2pl. k	56	1.3	9.68	7.6	8.2	18.6	0	0	38.2	26.6	4.8	3.6	8.2	16.6	10/YR/3/3		A`.1pl.k.orn/28_A`.2pl.k/56_A`.3pl.k/78_A`.4pl.k/102_A``` `.5pl.k/130_A`````.6pl.k/160_	9	KOZLODUY
29	A`.3pl. k	78	1.62	4.31	7.4	8	11	0	0	45.6	27.3	3.4	3.2	9.5	16.1	10/YR/3/4		A`.1pl.k.orn/28_A`.2pl.k/56_A`.3pl.k/78_A`.4pl.k/102_A``` `.5pl.k/130_A`````.6pl.k/160_	9	KOZLODUY
30	A```.4pl .k	102	1.89	3.3	7.4	8	9.7	0	2.6	36.5	31.9	4.1	2.9	12.3	19.3	10/YR/3/4		A`.1pl.k.orn/28_A`.2pl.k/56_A`.3pl.k/78_A`.4pl.k/102_A``` `.5pl.k/130_A`````.6pl.k/160_	9	KOZLODUY
31	A`````.5 pl.k	130	1.87	0.76	7.4	8	5.2	0	8	50	20.6	1.6	4.8	9.8	16.2	10/YR/3/3		A`.1pl.k.orn/28_A`.2pl.k/56_A`.3pl.k/78_A`.4pl.k/102_A``` `.5pl.k/130_A`````.6pl.k/160_	9	KOZLODUY
32	A```````.6 pl.k	160	1.18	1.28	7.5	8.1	5.5	0	10.6	53.2	14.9	2.4	3.6	9.8	15.8	10/YR/3/3		A`.1pl.k.orn/28_A`.2pl.k/56_A`.3pl.k/78_A`.4pl.k/102_A``` `.5pl.k/130_A`````.6pl.k/160_	9	KOZLODUY

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy								Soil units	Structure of the soil profile	№ of prof ile	Lands		
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0	0,0 5- 0,0	0,0 1- 0,0	0,00 5- 0,00	< 0,001 mm					< 0,01 mm	Color by Munsell
33	A`.1pl.k .orn	27	3.3	1.79	7. 3	7. 9	4.4	0	0	6.2	53	5.8	9.3	21.3	36.4	10/YR/ 3/1	Deluvia l- meado w mediu m sandy- clayey	A`.1pl.k.orn/27_A`.2pl.k/57_A`.3pl/80_A`.4pl/110_A`.5pl/140_	150	KOZLODUY
34	A`.2pl. k	57	3.38	0.76	7. 1	7. 7	4.3	0	0	16. 5	43. 8	8.5	12.6	14.3	35.4	10/YR/ 3/2		A`.1pl.k.orn/27_A`.2pl.k/57_A`.3pl/80_A`.4pl/110_A`.5pl/140_	150	KOZLODUY
35	A`.3pl	80	2.59	0	6. 6	7. 2	4.3	0	0	15. 1	45. 5	8	15.4	11.7	35.1	10/YR/ 3/3		A`.1pl.k.orn/27_A`.2pl.k/57_A`.3pl/80_A`.4pl/110_A`.5pl/140_	150	KOZLODUY
36	A`.4pl	110	2.08	0	6. 5	7. 1	2.5	0	0	24. 3	42. 5	8.8	10.2	11.7	30.7	10/YR/ 3/4		A`.1pl.k.orn/27_A`.2pl.k/57_A`.3pl/80_A`.4pl/110_A`.5pl/140_	150	KOZLODUY
37	A`.5 pl	140	1.8	0	6. 5	7. 1	3.8	0	0	21. 1	44	6.7	10.2	14.2	31.1	10/YR/ 3/4		A`.1pl.k.orn/27_A`.2pl.k/57_A`.3pl/80_A`.4pl/110_A`.5pl/140_	150	KOZLODUY
38	AC.f	30	2.49	0	5. 2	6	0.9	6.8	19.1	20. 5	16. 4	6.1	7.6	22.6	36.3	10/YR/ 4/4	Black- earth mediu m sandy- clayey	AC.f/30_d/_	11	KRUCHOVI CA
39	d	0	0	0	0	0	0	0	0	0	0	0	0	0	0			AC.f/30_d/_	11	KRUCHOVI CA
40	A`.k.orn	30	3.78	3.87	7. 2	7. 8	7.1	0	2.7	12. 7	36. 3	6.4	5.1	29.7	41.2	10/YR/ 5/1	Meado w black- earth carbon ate mediu	A`.k.orn/30_A`.k/58_AB.k/84_Bc.k/110_C.k/140_	168	KRUCHOVI CA

**P16Del09Rev02\_EIA\_R – Chapter 11**

O I D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
																m sandy- clayey				
41	A`.k	58	2.28	7.88	7.4	8	10.8	0	2.9	14.8	37.6	3	4.8	26.1	33.9	10/YR/ 5/1	A`.k.orn/30_A`.k/58_AB.k/84_Bc.k/110_C.k/140_	168	KRUCHOVI CA	
42	AB.k	84	1.69	13.68	7.6	8.2	18.2	0.4	3.1	13.9	28.9	6.9	9	19.6	35.5	10/YR/ 4/3	A`.k.orn/30_A`.k/58_AB.k/84_Bc.k/110_C.k/140_	168	KRUCHOVI CA	
43	Bc.k	110	1.14	21.88	7.7	8.3	28	0.4	2.5	11.1	27.6	6.1	6	18.3	30.4	10/YR/ 5/3	A`.k.orn/30_A`.k/58_AB.k/84_Bc.k/110_C.k/140_	168	KRUCHOVI CA	
44	C.k	140	0.57	29.28	7.9	8.5	36.6	0.9	2	8.7	33	7.4	4.4	7	18.8	10/YR/ 8/3	A`.k.orn/30_A`.k/58_AB.k/84_Bc.k/110_C.k/140_	168	KRUCHOVI CA	
45	AB.k.orn	25	2.04	5.34	7.3	7.9	10	0	5.1	18.8	36.3	4.4	6.9	18.8	30.1	Black- earth mediu m sandy- clayey	AB.k.orn/25_Bc.k/57_C1.k/91_C2.k/119_	130	KRUCHOVI CA	
46	Bc.k	57	1.27	15.55	7.4	8	22.2	0	2.4	16.8	33.8	4	3.9	16.9	24.8		AB.k.orn/25_Bc.k/57_C1.k/91_C2.k/119_	130		
47	C1.k	91	0	19.47	7.4	8	24.9	0	2.2	18.6	32.3	3.9	4.5	13.6	22		AB.k.orn/25_Bc.k/57_C1.k/91_C2.k/119_	130		
48	C2.k	119	0	20.42	7.4	8	25.5	0	2.4	14	36.1	5.7	3	13.3	22		AB.k.orn/25_Bc.k/57_C1.k/91_C2.k/119_	130		
49	A`.orn	28	1.85	0	6.3	6.9	1.4	0	0	13	44.4	6.2	8.3	26.7	41.2	10/YR/ 3/2	A`.orn/20_aB1/39_B2/69_C1.k/92_C2.k/124_C3.k/150_	3	KRUCHOVI CA	

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy								Soil units	Structure of the soil profile	№ of prof ile	Lands		
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm					< 0,01 mm	Color by Munsell
															sandy- clayey					
50	AB	52	1.43	0	5.9	6.7	1.3	0	0	13.6	43.8	8.6	6.2	26.5	41.3	10/YR/ 4/4	A`.orn/20_aB1/39_B2/69_C1.k/92_C2.k/124_C3.k/150_	3	KRUCHOVI CA	
51	B1.k	70	1.01	0.61	6.9	7.5	5.7	0	0	15.7	39.3	6.3	9.5	23.8	39.6	10/YR/ 4/4	A`.orn/20_aB1/39_B2/69_C1.k/92_C2.k/124_C3.k/150_	3	KRUCHOVI CA	
52	Bc.k	92	0.75	12.33	7.3	7.9	16.6	0	0	13.5	37.5	7.8	8.8	15.8	32.4	10/YR/ 6/4	A`.orn/20_aB1/39_B2/69_C1.k/92_C2.k/124_C3.k/150_	3	KRUCHOVI CA	
53	C1.k	132	0	18.59	7.5	8.1	24.7	0	0	11.7	35.8	9	8.9	9.9	27.8	10/YR/ 6/4	A`.orn/20_aB1/39_B2/69_C1.k/92_C2.k/124_C3.k/150_	3	KRUCHOVI CA	
54	A`.orn	30	2.75	0	5.8	6.6	1.2	0	0	17.4	41.2	8.7	6.8	24.7	40.2	10/YR/ 3/2	Black- earth leache d mediu m leache d mediu m sandy- clayey	A`.orn/25_Ab/49_B.k/73_bc.k/95_C.k/120_	23	KRUCHOVI CA
55	AB	44	1.54	0	5.4	6.2	1	0	0	20.1	37.1	8	10.2	23.6	41.8	10/YR/ 4/3	A`.orn/25_Ab/49_B.k/73_bc.k/95_C.k/120_	23	KRUCHOVI CA	
56	B1	77	1.45	0	6.1	6.9	0.9	0	0	20.7	36.7	13.7	5.4	23.3	42.4	10/YR/ 4/4	A`.orn/25_Ab/49_B.k/73_bc.k/95_C.k/120_	23	KRUCHOVI CA	
57	BC1.k	107	1.2	17.47	7.3	7.9	20.7	1.6	0	14.9	36.9	5.7	5.2	15.9	26.8	10/YR/ 5/6	A`.orn/25_Ab/49_B.k/73_bc.k/95_C.k/120_	23	KRUCHOVI CA	
58	C2.k	152	0	17.94	7.4	8.4	22.7	0	0	13.5	34.2	10.5	3.5	15.6	29.6	10/YR/ 6/6	A`.orn/25_Ab/49_B.k/73_bc.k/95_C.k/120_	23	KRUCHOVI CA	
59	A.1pl.k.	25	2.84	1.79	7	7.	4.9	0	1.1	6.5	11	12.	13.3	50.8	76.5	Alluvial	A.1pl.k.orn/25_A.2pl.k/47_A.3pl/73_4pl.k/107_5pl.k/133_6pl.k	33	KRUCHOVI	

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 0,0	0,0 5- 0,0 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
	orn					6						4					- meado w clayey	/167_7pl.k/207_		CA
60	A.2pl.k	47	2.43	0.97	7	7.6	3	0	0.2	11.2	10.1	12	15.6	47.9	75.5			A.1pl.k.orn/25_A.2pl.k/47_A.3pl/73_4pl.k/107_5pl.k/133_6pl.k/167_7pl.k/207_	33	KRUCHOVI CA
61	A.3pl	73	1.1	0	7	7.6	3.6	0	1.4	6.7	9.9	12.3	16.6	49.5	78.4			A.1pl.k.orn/25_A.2pl.k/47_A.3pl/73_4pl.k/107_5pl.k/133_6pl.k/167_7pl.k/207_	33	KRUCHOVI CA
62	4pl.k	107	0.4	0.77	7.4	8	6.3	0	3.6	2.6	12.7	9.3	16.6	48.9	74.8			A.1pl.k.orn/25_A.2pl.k/47_A.3pl/73_4pl.k/107_5pl.k/133_6pl.k/167_7pl.k/207_	33	KRUCHOVI CA
63	5pl.k	133	0.07	3.5	7.6	8.2	7.3	0	3.5	9.3	14.8	7.6	10.7	46.8	65.1			A.1pl.k.orn/25_A.2pl.k/47_A.3pl/73_4pl.k/107_5pl.k/133_6pl.k/167_7pl.k/207_	33	KRUCHOVI CA
64	6pl.k	167	0.14	8.06	7.7	8.3	9.5	0	7.2	14.1	12.2	8.7	19.2	29.1	57			A.1pl.k.orn/25_A.2pl.k/47_A.3pl/73_4pl.k/107_5pl.k/133_6pl.k/167_7pl.k/207_	33	KRUCHOVI CA
65	7pl.k	207	0.55	5.61	7.7	8.3	7.4	0	13.2	16.8	17.2	6.6	7.1	31.7	45.4			A.1pl.k.orn/25_A.2pl.k/47_A.3pl/73_4pl.k/107_5pl.k/133_6pl.k/167_7pl.k/207_	33	KRUCHOVI CA
66	A`orn	22	1.77	0	4.7	5.5	1.2	0	1	12.6	37.7	11.5	7.9	28.1	47.5	5/YR/3/3	Black- earth leache d heavy leache d slight sandy- clayey	A.orn/21_ab/39_B1/62_B2/88_C.k/111_	41	MANASTIR ISHTE
67	B1	43	1.14	0	5.2	6	1.4	0	0.9	13.4	34.3	9.3	8	32.7	50	5/YR/4/4		A.orn/21_ab/39_B1/62_B2/88_C.k/111_	41	MANASTIR ISHTE
68	B2	61	0.72	0	5.2	6	1.2	0	0.9	15.3	35.6	7.9	6.9	32.2	47	5/YR/4/4		A.orn/21_ab/39_B1/62_B2/88_C.k/111_	41	MANASTIR ISHTE
69	B3	82	0.58	0	5.2	6	1.7	0	0.9	16	33.4	8.9	7.2	31.9	48	5/YR/4/4		A.orn/21_ab/39_B1/62_B2/88_C.k/111_	41	MANASTIR ISHTE
70	B4	105	0.48	0	5.6	6	1.8	0	0.9	16	34	10	6.8	29.7	46.5	5/YR/5		A.orn/21_ab/39_B1/62_B2/88_C.k/111_	41	MANASTIR

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy								Soil units	Structure of the soil profile	№ of prof ile	Lands		
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0	0,0 5- 0,0	0,0 1- 0,0	0,00 5- 0,00	< 0,001 mm					< 0,01 mm	Color by Munsell
						4 2				8					/6		ISHTE			
71	C.k	140	0	12.9 7	7. 2	7. 8	16.7	0	1.3	13. 8	30. 1	9.1	5.4	23.6	38.1	5/YR/5 /8	A'.orn/21_aB/39_B1/62_B2/88_C.k/111_	41	MANASTIR ISHTE	
OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy								Soil units	Structure of the soil profile	№ of prof ile	Lands		
							Loss_ HCl	> 1m m	1- 0,25 mm	0,2 5- 0,0	0,0 5- 0,0	0,0 1- 0,0	0,00 5- 0,00	< 0,001 mm					< 0,01 mm	Color by Munsell
72	A'.orn	26	1.2	0	7	7. 6	1.3	2.6	23.3	23. 7	22. 4	7.2	6.3	13.2	26.7	5/YR/3/ 2	Mead ow black- earth mediu m leache d slight sandy- clayey	A'.orn/26_B1/46_B2/76_B3/102_C1/122_	4	MANASTIR ISHTE
73	B1	46	1.07	0	6. 5	7. 1	1.4	0	20.9	31. 7	20. 4	7.2	5.3	13.1	25.6	5/YR/3/ 2	A'.orn/26_B1/46_B2/76_B3/102_C1/122_	4	MANASTIR ISHTE	
74	B2	76	0.59	0	6. 7	7. 3	1.2	3.1	20.1	39	16. 6	6	4.3	9.7	20	5/YR/4/ 3	A'.orn/26_B1/46_B2/76_B3/102_C1/122_	4	MANASTIR ISHTE	
75	B3	102	0.64	0	7	7. 6	2.1	2.7	33.6	34. 2	11. 4	5	4.2	6.8	16	5/YR/5/ 4	A'.orn/26_B1/46_B2/76_B3/102_C1/122_	4	MANASTIR ISHTE	
76	C1	122	0	0	7. 8	8. 4	0.2	58. 5	34.3	5.2	0.9	0.2	0.3	0.4	0.9	5/YR/5/ 6	A'.orn/26_B1/46_B2/76_B3/102_C1/122_	4	MANASTIR ISHTE	

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
77	A`.k.orn	24	1.84	1.43	7. 1	7. 7	6.8	0	4.9	25. 5	25. 9	7.3	8.5	21.1	36.9	7,5/YR/ 3/2	Black- earth typical mediu m sandy- clay	A`.k.orn/24_B.k/50_C1.k/80_C2.k/115_	16	MIHAILOV O
78	B.k	50	1.08	1.63	7. 2	7. 8	7.3	0	4.8	25. 5	23. 4	5.8	7.3	25.4	38.5	7,5/YR/ 4/4		A`.k.orn/24_B.k/50_C1.k/80_C2.k/115_	16	MIHAILOV O
79	C1.k	80	0.9	18.2 2	7. 5	8. 1	23.4	0	3.5	20. 3	23. 2	5.7	5	18.9	29.6	7,5/YR/ 5/4		A`.k.orn/24_B.k/50_C1.k/80_C2.k/115_	16	MIHAILOV O
80	C2.k	115	0.46	24.5 4	7. 4	8. 3	29	0	1.9	18. 4	29. 6	8.1	4	9	21.1	7,5/YR/ 5/6		A`.k.orn/24_B.k/50_C1.k/80_C2.k/115_	16	MIHAILOV O
81	A`.ch.k	15	1.41	8.35	7. 6	8. 2	14	0	15	46	13. 3	4.2	2.7	4.8	11.7	7,5/YR/ 4/4	Alluvia l- meado w clayey- sandy	A`.ch.k/15_1pl.k/38_2pl.k/60_3pl.k/85_4pl.k/118_	46	MIHAILOV O
82	1pl.k	38	1.36	2.58	7. 4	8	6.6	0	7.5	39. 4	26. 6	5.5	4.4	10	19.9	7,5/YR/ 5/4		A`.ch.k/15_1pl.k/38_2pl.k/60_3pl.k/85_4pl.k/118_	46	MIHAILOV O
83	2pl.k	60	1.23	3.47	7. 4	8	6.7	0	5.8	38. 8	28. 5	6	3.7	10.5	20.2	7,5/YR/ 5/4		A`.ch.k/15_1pl.k/38_2pl.k/60_3pl.k/85_4pl.k/118_	46	MIHAILOV O
84	3pl.k	85	1.08	4.07	7. 6	8. 2	7.6	0	2.6	41. 9	28	5.2	4.8	9.9	19.9	7,5/YR/ 6/6		A`.ch.k/15_1pl.k/38_2pl.k/60_3pl.k/85_4pl.k/118_	46	MIHAILOV O
85	4pl.k	118	0.29	2.28	7. 6	8. 2	4.5	0	23	59	4.7	1.5	4	3.3	8.8	7,5/YR/ 6/6		A`.ch.k/15_1pl.k/38_2pl.k/60_3pl.k/85_4pl.k/118_	46	MIHAILOV O
86	A`.ch	18	3.17	0.5	7. 2	7. 8	3.1	0	3.5	17. 6	34. 3	8.6	6.2	26.7	41.5	7,5/YR/ 3/2	Mead ow black- earth	A`.ch/18_A`/37_A`/k/55_A`/78_C1.k/100_C2.k/126_	5	MIHAILOV O

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
																typical carbon ate mediu m sandy- clayey				
87	A``	37	2.79	0.5	7	7.6	3.6	0.5	4.7	17.1	28.8	8.2	6.7	30.4	45.3	7,5/YR/ 3/2	A`.ch/18_A``/37_A``.k/55_A````/78_C1.k/100_C2.k/126_	5	MIHAILOV O	
88	A``.k	55	2.41	1.88	7.2	7.8	5.7	0	5.7	18.1	27.5	6.3	7.3	29.5	43.1	7,5/YR/ 4/4	A`.ch/18_A``/37_A``.k/55_A````/78_C1.k/100_C2.k/126_	5	MIHAILOV O	
89	A````	78	1.94	5.68	7.3	7.9	8.9	0	6.1	19.1	22.8	7.2	7.9	28	43.1	7,5/YR/ 5/4	A`.ch/18_A``/37_A``.k/55_A````/78_C1.k/100_C2.k/126_	5	MIHAILOV O	
90	C1.k	100	1.39	11	7.4	8	16.1	0	7.5	14.9	22	8.3	6	25.2	39.5	7,5/YR/ 5/4	A`.ch/18_A``/37_A``.k/55_A````/78_C1.k/100_C2.k/126_	5	MIHAILOV O	
91	C2.k	126	1.05	10.24	7.4	8	12.4	0	7.2	19.9	25.2	7.7	6.4	21.2	35.3		A`.ch/18_A``/37_A``.k/55_A````/78_C1.k/100_C2.k/126_	5	MIHAILOV O	
92	A`.orn	27	2.72	0	6.8	7.4	4.3	0	6.1	8.4	19.8	13.3	11.7	36.4	61.4	7,5/YR/ 3/2	Mead ow black- earth mediu m leache d slight clayey	A`.orn/27_A``/51_A````/79_B/110_C.k/142_	44	MIHAILOV O
93	A``	51	2.56	0	6.5	7.1	2.1	0	5.5	12.4	20.4	12.5	12.8	34.1	59.4	7,5/YR/ 3/2	A`.orn/27_A``/51_A````/79_B/110_C.k/142_	44	MIHAILOV O	
94	A``	79	1.52	0	6.8	7.4	1.7	0	4.4	14.8	20.8	12.6	11.7	34.1	58.4	7,5/YR/ 4/4	A`.orn/27_A``/51_A````/79_B/110_C.k/142_	44	MIHAILOV O	
95	B	110	1.26	0	6.7	7	2.6	0	4.1	14.1	19.1	11.1	12.6	35.6	60.1	7,5/YR/	A`.orn/27_A``/51_A````/79_B/110_C.k/142_	44	MIHAILOV	

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
					4					1	1	9				4/4			O	
96	C.k	142	1.1	0.96	7.1	7.7	5.1	0	4.8	14.1	21.1	12.5	11.1	31.3	54.9			A`.orn/27_A`/51_A`/79_B/110_C.k/142_	44	MIHAILOV O
97	A`.k.orn	28	1.9	7.14	7.3	7.9	11.5	0	0	24.9	45.7	3.3	11.4	3.2	17.9	10/YR/3/2	Black-earth carbonate clayey-sandy	A`.k.orn/28_AB.k/44_BC.k/75_C1.k/105_C2.k/130_	87	MIZIA
98	AB.k	44	1.54	9.63	7.3	7.9	14.6	0	0	25.4	36.4	6.4	14	3.2	23.6	10/YR/4/3		A`.k.orn/28_AB.k/44_BC.k/75_C1.k/105_C2.k/130_	87	MIZIA
99	BC.k	75	1.11	16.24	7.4	8.4	21	0	0	21.1	36.4	8	8.7	4.8	21.5	10/YR/4/3		A`.k.orn/28_AB.k/44_BC.k/75_C1.k/105_C2.k/130_	87	MIZIA
100	C1.k	105	0.72	20.01	7.5	8.1	25.4	0	0	23.1	42.7	5	1.6	2.2	8.8	10/YR/5/4		A`.k.orn/28_AB.k/44_BC.k/75_C1.k/105_C2.k/130_	87	MIZIA
101	C2.k	130	0	21.16	7.5	8.1	26.6	0	0	31	33	6.1	0.7	2.6	9.4	10/YR/5/4		A`.k.orn/28_AB.k/44_BC.k/75_C1.k/105_C2.k/130_	87	MIZIA
102	A.1pl.k.orn	40	3.46	4.41	7.2	7.8	8.4	0	3.2	17	29.8	8.4	8.5	24.7	41.6	10/YR/3/2	Alluvia l- meadow medium sandy-clayey	A.1pl.k.orn/40_A.2pl.k/76_A.3pl.k/112_A.4pl.k/151_A.5pl.k/190_	40	MIZIA
103	A.2pl.k	76	2.07	4.61	7.3	7.9	7.9	0	5.2	19.2	26.4	7	7.9	26.4	41.3	10/YR/3/2		A.1pl.k.orn/40_A.2pl.k/76_A.3pl.k/112_A.4pl.k/151_A.5pl.k/190_	40	MIZIA
104	A.3pl.k	112	1.01	9.3	7.4	8.4	13.1	0	2.1	18.4	29.6	7.7	5.9	23.2	36.8	10/YR/4/3		A.1pl.k.orn/40_A.2pl.k/76_A.3pl.k/112_A.4pl.k/151_A.5pl.k/190_	40	MIZIA
105	A.4pl.k	151	1.73	13.58	7.6	8.2	17.6	0	7.5	16.6	19	7.8	7.8	23.7	39.3	10/YR/5/3		A.1pl.k.orn/40_A.2pl.k/76_A.3pl.k/112_A.4pl.k/151_A.5pl.k/190_	40	MIZIA

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 5	0,0 0,0 1	0,0 0,0 05	0,0 0,0 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
10 6	A.5pl.k	190	1.33	10.4 4	7. 5	8. 1	14.4	0	2.2	8.7	25. 5	9.4	10.3	29.5	49.2	10/YR/5 /3	A.1pl.k.orn/40_A.2pl.k/76_A.3pl.k/112_A.4pl.k/151_A.5pl.k/190_	40	MIZIA	
10 7	A.1pl.k. orn	30	3.1	0.21	6. 8	7. 4	4.4	0	0	11. 5	25. 3	17. 7	11.3	29.8	58.8		Alluvia l- meado w heavy sandy- clayey	A.1pl.k.orn/30_A.2pl.k/62_A.3pl.k/98_A.4pl.k/132_A.5pl.k/170_	140	MIZIA
10 8	A.2pl.k	62	2.64	0.62	6. 8	7. 4	4.2	0	0	9.6	26. 7	14. 9	16	28.6	59.5			A.1pl.k.orn/30_A.2pl.k/62_A.3pl.k/98_A.4pl.k/132_A.5pl.k/170_	140	MIZIA
10 9	A.3pl.k	98	1.5	0.62	6. 9	7. 5	3.4	0	0	16. 1	27. 5	12. 9	16.5	23.6	53			A.1pl.k.orn/30_A.2pl.k/62_A.3pl.k/98_A.4pl.k/132_A.5pl.k/170_	140	MIZIA
11 0	A.4pl.k	132	1.31	0.62	6. 9	7. 5	4.4	0	0	8.7	31. 6	12	13.3	30	55.3			A.1pl.k.orn/30_A.2pl.k/62_A.3pl.k/98_A.4pl.k/132_A.5pl.k/170_	140	MIZIA
11 1	A.5pl.k	170	1.32	1.28	7. 1	7. 7	6.2	0	0	7.2	25. 7	15. 1	15	30.8	60.9			A.1pl.k.orn/30_A.2pl.k/62_A.3pl.k/98_A.4pl.k/132_A.5pl.k/170_	140	MIZIA
11 2	A.1pl.k. orn	30	2.31	2.8	7. 3	7. 9	7.5	0	0	3.5	28. 7	16. 1	13.8	30.4	60.3	10/YR/3 /3	Alluvia l- meado w slight clayey	A.1pl.k.orn/30_A.2pl.k/55_A.3pl.k/75_A.4pl/110_5pl/150_	248	ORIAHOVO
11 3	A.2pl.k	55	2.48	1.28	7. 3	7. 9	4.6	0	0	11. 5	22. 9	11. 7	11.4	37.9	61	10/YR/3 /3		A.1pl.k.orn/30_A.2pl.k/55_A.3pl.k/75_A.4pl/110_5pl/150_	248	ORIAHOVO
11 4	A.3pl.k	75	2.08	0.41	7. 2	7. 8	4.3	0	0	15. 2	22 8	13. 8	13	31.7	58.5	10/YR/3 /3		A.1pl.k.orn/30_A.2pl.k/55_A.3pl.k/75_A.4pl/110_5pl/150_	248	ORIAHOVO
11 5	A.4pl	110	1.45	0	7. 1	7. 7	3.4	0	0	15. 9	25. 3	14. 3	11.3	29.8	55.4	10/YR/4 /3		A.1pl.k.orn/30_A.2pl.k/55_A.3pl.k/75_A.4pl/110_5pl/150_	248	ORIAHOVO
11 6	5pl	150	0	0	7	7. 6	3.6	0	0	16. 6	27. 2	13. 4	11.1	28.1	52.6	10/YR/4 /3		A.1pl.k.orn/30_A.2pl.k/55_A.3pl.k/75_A.4pl/110_5pl/150_	248	ORIAHOVO

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy								Color by Munsell	Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm					
11 7	4pl.k	108	1.1	14.4 2	7. 9	8. 5	18.9	0	0	29	30. 6	5	2.3	14.2	21.5	Alluvia l- meado w slight sandy- clayey	A.1pl.orn.k/28_A.2pl.k/50_3pl.k/78_4pl.k/108_5pl.k/134_	490	OSTROV
11 8	5pl.k	134	0.93	20.1 2	8. 1	8. 7	26.5	0	0.7	17	26. 2	5.5	5	19.1	29.6		A.1pl.orn.k/28_A.2pl.k/50_3pl.k/78_4pl.k/108_5pl.k/134_	490	OSTROV
11 9	AC1.chi m	22	1.57	17.7 5	8. 1	8. 7	22.5	0	0	24. 9	36. 6	2.9	3.1	10	16	Black- earth clayey- sandy	AC1.chim/22_C2.k/46_	373	OSTROV
12 0	C2.k	46	0.43	21.0 7	8. 2	8. 8	25.2	0	1.6	17. 5	43. 2	3.6	2.1	6.8	12.5		AC1.chim/22_C2.k/46_	373	OSTROV
12 1	A.1pl.or n.k	28	2.25	0.76	7. 5	8. 1	3.9	0	0.3	36. 1	33. 7	5.1	2.7	18.2	26	Alluvia l- meado w slight sandy- clayey	A.1pl.orn.k/28_A.2pl.k/50_3pl.k/78_4pl.k/108_5pl.k/134_	490	OSTROV
12 2	A.2pl.k	50	1.54	5.31	7. 7	8. 3	8.4	0	1.3	36	30. 4	4	4.5	15.4	23.9		A.1pl.orn.k/28_A.2pl.k/50_3pl.k/78_4pl.k/108_5pl.k/134_	490	OSTROV
12 3	3pl.k	78	1.18	9.98	7. 9	8. 5	13.1	0	0	35. 9	29. 6	4	3	14.4	21.4		A.1pl.orn.k/28_A.2pl.k/50_3pl.k/78_4pl.k/108_5pl.k/134_	490	OSTROV
12 4	A.orn	22	2.01	0	5. 3	6. 1	2.8	0	3.3	11. 4	34. 5	7.7	11.3	29	48	10/YR/3 /2 Black- earth leache	A.orn/22_aB1/42_B2/62_C1.k/83_C2.k/108_C3.k/132_	117	ROGOZEN

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
																	d slight leache d slight sandy- clayey			
12 5	aB1	42	1.3	0	5. 6	6. 4	2.9	0	1.6	12. 3	32. 7	7.7	8.9	33.9	50.5	10/YR/4 /2	A.orn/22_aB1/42_B2/62_C1.k/83_C2.k/108_C3.k/132_	117	ROGOZEN	
12 6	B2	62	0.99	0	5. 6	6. 4	3	0	1.4	12. 9	33. 5	9.1	6.3	33.8	49.2	10/YR/4 /3	A.orn/22_aB1/42_B2/62_C1.k/83_C2.k/108_C3.k/132_	117	ROGOZEN	
12 7	C1.k	83	0.88	5.73	5. 7	6. 5	10.9	0	1.6	4.8	34. 1	9.1	7.7	31.8	48.6	10/YR/4 /4	A.orn/22_aB1/42_B2/62_C1.k/83_C2.k/108_C3.k/132_	117	ROGOZEN	
12 8	C2.k	108	0.94	7.41	7. 1	7. 7	9.9	0	1.9	12. 2	30. 6	10	10.2	25.2	45.4	10/YR/5 /6	A.orn/22_aB1/42_B2/62_C1.k/83_C2.k/108_C3.k/132_	117	ROGOZEN	
12 9	C3.k	132	0.54	8.67	7. 3	7. 9	11.9	0	1.5	14	33. 6	15. 9	12.1	11	39	10/YR/5 /6	A.orn/22_aB1/42_B2/62_C1.k/83_C2.k/108_C3.k/132_	117	ROGOZEN	
13 0	A`.orn	22	2	0	5. 6	6. 4	2.4	0	0	14. 8	33. 4	10. 6	5.8	33.3	49.7	5/YR/3/ 2	A`.orn/22_A`/46_B1/68_B2/88_C1.k/110_C2.k/130_	95	ROGOZEN	
13 1	A``	46	1.51	0	5. 7	6. 5	2.4	0	0	18. 1	31	8.1	7.7	32.7	48.5	5/YR/3/ 3	A`.orn/22_A``/46_B1/68_B2/88_C1.k/110_C2.k/130_	95	ROGOZEN	
13 2	B1	68	0.91	0	5. 8	6. 6	2.6	0	0.5	12. 5	36	8.2	8.5	31.7	48.4	5/YR/4/ 4	A`.orn/22_A`/46_B1/68_B2/88_C1.k/110_C2.k/130_	95	ROGOZEN	

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 5	0,0 5- 1	0,0 0,0 0,05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
13 3	B2	88	0.5	0	6. 2	7	2.2	0	0.5	12. 4	37. 6	9.6	7.5	30.2	47.3	5/YR/4/ 4	A`.orn/22_A`/46_B1/68_B2/88_C1.k/110_C2.k/130_	95	ROGOZEN	
13 4	C1.k	110	0.71	0	6. 4	7	2.5	0	0.6	14. 9	36. 1	9.9	6.1	29.9	45.9	5/YR/4/ 6	A`.orn/22_A`/46_B1/68_B2/88_C1.k/110_C2.k/130_	95	ROGOZEN	
13 5	C2.k	130	0.55	13.7 1	7. 3	7. 9	17.8	0	0.8	12. 4	31. 7	8.2	6.9	22.2	37.3	5/YR/5/ 6	A`.orn/22_A`/46_B1/68_B2/88_C1.k/110_C2.k/130_	95	ROGOZEN	
13 6	A`.orn	30	2.31	0	4. 7	5. 5	1.6	0	0.8	18. 4	32. 2	9.6	7.2	30.2	47	7,5/YR/ 3/2	Dark gray mediu m sandy- clayey	A`.orn/30_B1.g/56_B2.g/84_B3.g/115_C.k/150_	5	ROGOZEN
13 7	B1.g	56	1.25	0	4. 7	5. 5	2.2	0	0.9	13. 2	30. 3	8.3	7.3	37.8	53.4	7,5/YR/ 4/4	A`.orn/30_B1.g/56_B2.g/84_B3.g/115_C.k/150_	5	ROGOZEN	
13 8	B2.g	84	1.25	0	4. 7	5. 5	2	0	0.6	16. 7	29. 4	7.9	8.2	35.2	51.3	7,5/YR/ 4/4	A`.orn/30_B1.g/56_B2.g/84_B3.g/115_C.k/150_	5	ROGOZEN	
13 9	B3.g	115	0.88	0	4. 8	5. 6	1.9	0	0.8	17. 6	30. 7	8.3	7.9	32.8	49	7,5/YR/ 4/4	A`.orn/30_B1.g/56_B2.g/84_B3.g/115_C.k/150_	5	ROGOZEN	
14 0	C.k	150	0.6	13.5	7 6	7. 6	16.6	0	0.9	13. 6	25. 8	8.6	6.2	28.3	43.1	7,5/YR/ 6/8	A`.orn/30_B1.g/56_B2.g/84_B3.g/115_C.k/150_	5	ROGOZEN	
OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_HCl	> 1m m	1- 0,25 mm	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
14 1	A`.orn	21	2.45	1.78	6. 9	7. 5	4.9	0	0	16	37. 3	8.1	6.4	27.3	41.8	5/YR/3/ 1	Alluvia l	A`.orn/21_A`.k/44_1pl/68_2pl/91_3pl/115_	121	ROGOZEN

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy									Soil units	Structure of the soil profile	№ of prof ile	Lands	
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm					Color by Munsell
																(delu vi al) meado w slight sandy- clayey				
14 2	A`.k	44	2.45	1.25	6. 7	7. 3	4.8	0	0	15. 8	33. 2	10. 4	6	29.8	46.2	5/YR/3/ 2	A`.orn/21_A`.k/44_1pl/68_2pl/91_3pl/115_	121	ROGOZEN	
14 3	1pl	68	2.09	0	6. 7 3	7. 3	4.4	0	0	15. 7	29. 8	9.8	7.2	33.1	50.1	5/YR/3/ 3	A`.orn/21_A`.k/44_1pl/68_2pl/91_3pl/115_	121	ROGOZEN	
14 4	2pl	91	1.46	0	6. 6 2	7. 2	3.9	0	0	17. 1	25. 2	12. 5	5.1	36.2	53.8	5/YR/3/ 4	A`.orn/21_A`.k/44_1pl/68_2pl/91_3pl/115_	121	ROGOZEN	
14 5	3pl	115	1.16	0	6. 7 3	7. 3	4.2	0	0	6.9	38. 7	17. 8	16.1	16.3	50.2	5/YR/3/ 4	A`.orn/21_A`.k/44_1pl/68_2pl/91_3pl/115_	121	ROGOZEN	
14 6	A`.pl.k. orn	30	2	4.31	7. 5	8. 1	8.6	0	0	31. 1	26. 4	6.4	10.4	17.1	33.9	10/YR/3/ 2	Alluvia l (deluvi al) meado w mediu m sandy- clayey	A`.pl.k.orn/30_A`.pl.k/54_A`.pl.k/76_A`.pl.k/100_A`.pl.k /130_A`.pl.k/160_	184	SELANOVCI
14 7	A`.pl.k	54	0	2.8	7. 4	8	4.9	0	2.8	22. 4	33. 7	9.2	11	16	36.2	10/YR/3/ 1	A`.pl.k.orn/30_A`.pl.k/54_A`.pl.k/76_A`.pl.k/100_A`.pl.k /130_A`.pl.k/160_	184	SELANOVCI	
14 8	A`.pl.k	76	0	3.3	7. 5 1	8. 1	6.4	0	2.4	24. 7	31. 8	7.8	11.7	15.2	34.7	10/YR/3/ 3	A`.pl.k.orn/30_A`.pl.k/54_A`.pl.k/76_A`.pl.k/100_A`.pl.k /130_A`.pl.k/160_	184	SELANOVCI	
14 9	A`.pl. k	100	0	4.31	7. 5 1	8. 1	7.6	0	4.9	20. 4	37. 9	6.1	6.5	16.6	29.2	10/YR/4/ 3	A`.pl.k.orn/30_A`.pl.k/54_A`.pl.k/76_A`.pl.k/100_A`.pl.k /130_A`.pl.k/160_	184	SELANOVCI	
15	A`.pl	130	1.13	5.81	7. 8	8	9.5	0	1.1	22. 36.	36. 5.4	7.4	17.6	30.4	10/YR/5	A`.pl.k.orn/30_A`.pl.k/54_A`.pl.k/76_A`.pl.k/100_A`.pl.k	184	SELANOVCI		

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
0	.k				4						5	5					/3	/130_A'''''.pl.k/160_		
15 1	A'''''.p l.k	160	0	2.8	7. 3	7. 9	5.8	0	1.5	17. 5	38. 1	9.3	7.5	19.9	36.7	10/YR/4 /4		A`.pl.k.orn/30_A``.pl.k/54_A``.pl.k/76_A``.pl.k/100_A``.pl.k /130_A``.pl.k/160_	184	SELANOVC
15 2	A`.k.orn	28	1.89	2.8	7. 5	8. 1	7.5	0	0	27	33. 3	8.9	7.5	15.8	32.2	10/YR/3 /2	Black- earth carbon ate mediu m sandy- clay	A`.k.orn/28_AB.k/50_BC.k/80_C1.k/104_C2.k/130_	180	SELANOVC
15 3	AB.k	50	1.85	6.79	7. 6	8. 2	11.4	0	0	23. 6	40. 6	7	2	15.4	24.4	10/YR/3 /3		A`.k.orn/28_AB.k/50_BC.k/80_C1.k/104_C2.k/130_	180	SELANOVC
15 4	BC.k	80	1.23	15.3 7	7. 8	8. 4	18.6	0	0	23. 1	34. 1	6.5	4.2	13.5	24.2	10/YR/4 /3		A`.k.orn/28_AB.k/50_BC.k/80_C1.k/104_C2.k/130_	180	SELANOVC
15 5	C1.k	104	0.81	20.1 2	7. 8	8. 4	26	0	0	23. 6	30. 6	5.1	3.4	11.3	19.8	10/YR/5 /3		A`.k.orn/28_AB.k/50_BC.k/80_C1.k/104_C2.k/130_	180	SELANOVC
15 6	C2.k	130	0	23.9 7	7. 9	8. 5	31.7	0	0	19. 2	31. 8	5.8	2.8	8.7	17.3	10/YR/6 /4		A`.k.orn/28_AB.k/50_BC.k/80_C1.k/104_C2.k/130_	180	SELANOVC
15 7	A.1pl.orn	28	3.73	0	6. 9	7. 5	4.2	0	0	7.2	40. 9	13. 1	12.7	21.9	47.7		Deluvi- al- meadow heavy sandy- clayey	A.1pl.orn/28_A.2pl/54_A.3pl/78_A.4pl/102_A.5pl/128_	14	SELANOVC
15 8	A.2pl	54	3.16	0	6. 7	7. 3	3.4	0	0	14. 8	40. 6	11	6.3	23.9	41.2			A.1pl.orn/28_A.2pl/54_A.3pl/78_A.4pl/102_A.5pl/128_	14	SELANOVC
15 9	A.3pl	78	2.46	0	6. 3	6. 9	2.2	0	0	17. 8	38	10. 3	10.3	21.6	42.2			A.1pl.orn/28_A.2pl/54_A.3pl/78_A.4pl/102_A.5pl/128_	14	SELANOVC
16	A.4pl	102	0	0	0	0	0	0	0	0	0	0	0	0	0			A.1pl.orn/28_A.2pl/54_A.3pl/78_A.4pl/102_A.5pl/128_	14	SELANOVC

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
0																				
16 1	A.5pl	128	0	0	6. 1	6. 9	2.1	0	0	16	38. 9	8.6	6.6	27.8	43			A.1pl.orn/28_A.2pl/54_A.3pl/78_A.4pl/102_A.5pl/128_	14	SELANOVCI
16 2	1pl.k	30	0.53	18.7 1	8. 1	8. 7	23.2	0	10.4	38. 8	7.1	10. 6	2.7	7.2	20.5	10/YR/3 /1	Alluvia l- meado w alkalin e slight sandy- clayey	1pl.k/30_A.2pl.k/56_A.3pl.k/96_4pl.k/130_	191	SELANOVCI
16 3	A.2pl.k	56	1.19	7.28	7. 9	8. 5	11	0	5.4	47. 6	12. 3	4.4	4.3	15	23.7	10/YR/3 /2			191	SELANOVCI
16 4	A.3pl.k	96	2.32	3.81	7. 6	8. 2	7.1	0	3.8	51. 2	15. 2	3.9	4.7	14.2	22.8	10/YR/6 /4			191	SELANOVCI
16 5	4pl.k	130	0.56	21.0 7	8. 1	8. 7	25.5	0	13.1	32. 6	18. 2	3.8	2.1	4.7	10.6	10/YR/7 /4			191	SELANOVCI
16 6	A.1pl.k	20	3.5	6.3	7. 5	8. 1	11.9	0	0	14. 4	38. 8	6.6	7.9	20.4	34.9	10/YR/3 /1	Alluvia l- meado w alkalin e mediu m sandy- clayey	A.1pl.k/20_A.2pl.k/44_	185	SELANOVCI
16 7	A.2pl.k	44	4.2	6.79	7. 3	7. 9	12.9	0	0	6.3	22. 9	9.8	15.3	32.8	57.9	10/YR/3 /1			185	SELANOVCI

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy								Color by Munsell	Soil units	Structure of the soil profile	№ of prof ile	Lands	
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 5	0,0 0,0 1	0,0 0,0 05	0,0 0,0 1	< 0,001 mm						< 0,01 mm
16 8	Ab.k	12	4.72	6.79	7. 4	8	13.6	0	0	19. 5	39. 2	6.5	4.8	16.4	27.7	10/YR/3 /3	Black- earth slight sandy- clay	Ab.k/12_BC.k/40_C.k/74_	71	SELANOVC
16 9	BC.k	40	3.24	9.68	7. 6	8. 2	17.1	0	0	16. 3	39. 9	6.8	4.4	15.5	26.7	10/YR/4 /3			71	SELANOVC
17 0	C.k	74	1.67	15.8 5	7. 6	8. 2	22.7	0	0	15. 8	39. 1	5.1	3.5	13.8	22.4	10/YR/6 /4			71	SELANOVC
17 1	A.k	12	1.78	15.8 7	7. 3	7. 9	20.2	0.9	1.8	34. 5	23. 4	7.4	11.1	11.8	30.3	5/YR/4/ 4	Black- earth carbon ate slight sandy- clay	A.k/12_C1.k/30_C2.k/50_C3.k/78_	93	SOFRONIE VO
17 2	C1.k	30	0.92	16.5 3	7. 4	8	18.3	0.6	1.2	10. 3	25	10. 9	11.9	21.8	44.6	5/YR/5/ 6			93	SOFRONIE VO
17 3	C2.k	50	0.79	18.0 8	7. 4	8	14.1	0	0	14. 4	24. 4	9.9	11.6	25.6	47.1	5/YR/5/ 8			93	SOFRONIE VO
17 4	C3.k	78	0.63	20.1 4	7. 3	7. 9	21.2	0	0	11. 6	27	6.6	10.4	23.2	40.2	5/YR/5/ 8			93	SOFRONIE VO
17 5	A`.k.orn	22	1.2	3.87	7. 2	7. 8	6	0	3.1	42. 3	29	7.3	4.2	8.1	19.6	5/YR/5/ 3	Alluvia l clayey- sandy	A`.k.orn/22_A`.k/45_1pl.k/69_2pl.k/92_3pl.k/120_4pl.k/151_	71	SOFRONIE VO
17 6	A`.k	45	1.17	4.76	7. 3	7. 9	6.9	0	2.4	36. 1	33. 1	5.6	4.4	11.5	21.5	5/YR/5/ 3			71	SOFRONIE VO
17 7	1pl.k	69	1.03	3.77	7. 3	7. 9	5.8	0	7.6	40. 7	20. 9	9.1	4.1	11.8	25	5/YR/5/ 4			71	SOFRONIE VO
17	2pl.k	92	1.38	4.86	7.	7.	7.3	0	7.4	15.	35.	11.	7.3	15.7	34.5	5/YR/5/			71	SOFRONIE

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0	0,0 5- 0,0	0,0 1- 0,05	0,00 5- 0,00	< 0,001 mm	< 0,01 mm	Color by Munsell				
8					2	8				6	2	5			6			VO		
17 9	3pl.k	120	0.92	3.07	7. 4	8	4.7	0	20.5	33. 3	26. 9	4.6	3.5	6.5	14.6	5/YR/5/ 6		71	SOFRONIE VO	
18 0	4pl.k	151	0.43	1.87	7. 5	8. 1	2.1	0	37.6	50. 7	4.6	1.6	1.8	1.6	5	5/YR/5/ 8		71	SOFRONIE VO	
18 1	A`.chim	21	2.38	0	6	6. 8	2.2	0	25.1	18	19. 6	10. 2	7.3	17.6	35.1	5/YR/5/ 2	Alluvia l mediu m sandy- clayey	A`.chim/21_A`/48_1pl/74_2pl/102_3pl/136_4pl/167_	68	SOFRONIE VO
18 2	A``	48	1.95	0	6. 4	7	2.1	0	24.5	18	21. 8	6	5.7	21.9	33.6	5/YR/5/ 2		68	SOFRONIE VO	
18 3	1pl	74	1.22	0	6. 5	7. 1	1.3	3.9	36.2	26. 8	11. 5	4.4	5.3	10.6	20.3	5/YR/5/ 4		68	SOFRONIE VO	
18 4	2pl	102	1.08	0	6. 8	7. 4	1	2.5	41.9	28	10. 4	4.2	3.4	8.6	16.2	5/YR/5/ 4		68	SOFRONIE VO	
18 5	3pl	136	0.94	0	6. 7	7. 3	1.1	6.3	46.6	25. 1	8.9	3	2.2	6.8	12	5/YR/5/ 6		68	SOFRONIE VO	
18 6	4pl	167	0.51	0	6. 8	7. 4	0.6	12	49.8	24. 7	5.3	1.8	1.5	4.3	7.6			68	SOFRONIE VO	
18 7	A`.orn	22	2.9	0	6. 7	7. 3	2.9	0	6.4	17. 9	23. 5	13. 4	8.8	27.1	49.3	5/YR/3/ 2	Mead ow black- earth mediu m leache d heavy sandy-	A`.orn/22_A`/42_aB/63_B1/92_B2/116_B3/143_C.k/173_	51	SOFRONIE VO

**P16Del09Rev02\_EIA\_R – Chapter 11**

OI D	Code of the horizon	Dep th	Hum us	CaC O3	p H K Cl	pH H2 O	Mechanical composition by Kachinskiy										Soil units	Structure of the soil profile	№ of prof ile	Lands
							Loss_ HCl	> 1mm	1- 0,25m m	0,2 5- 0,0 5	0,0 5- 0,0 1	0,0 1- 0,0 05	0,00 5- 0,00 1	< 0,001 mm	< 0,01 mm	Color by Munsell				
																clayey				
18 8	A''	42	2.76	0	6. 8	7. 4	2.7	0	6.1	18. 5	23. 5	14. 4	8.9	25.9	49.2	5/YR/4/ 2		51	SOFRONIE VO	
18 9	aB	63	2.4	0	6. 9	7. 5	2.8	0	5.7	19. 2	22. 6	14. 4	10.4	24.9	49.7	5/YR/4/ 2		51	SOFRONIE VO	
19 0	B1	92	2.05	0	6. 8	7. 4	2.7	0	4.7	20. 3	21. 7	15. 7	10.7	24.2	50.6	5/YR/4/ 3		51	SOFRONIE VO	
19 1	B2	116	1.36	0	6. 8	7. 4	2.3	0	5.1	21. 2	26. 2	18. 5	4.2	22.5	45.2	5/YR/4/ 4		51	SOFRONIE VO	
19 2	B3	143	1.25	0	7. 6	7. 6	2.5	0	3.6	15. 8	32. 1	14. 7	8.2	23.1	46	5/YR/4/ 6		51	SOFRONIE VO	
19 3	C.k	173	1.34	1.27	7. 6	7. 6	5	0	3.4	14. 4	29. 2	14. 1	8.8	25.1	48	5/YR/5/ 6		51	SOFRONIE VO	

## ***Attachment 11.3.4 Cultural heritage sites in the 30-km area around Kozloduy Nuclear Power Plant***

### *Attachment 11.3.5 Visual data and maps related to section 3.13*

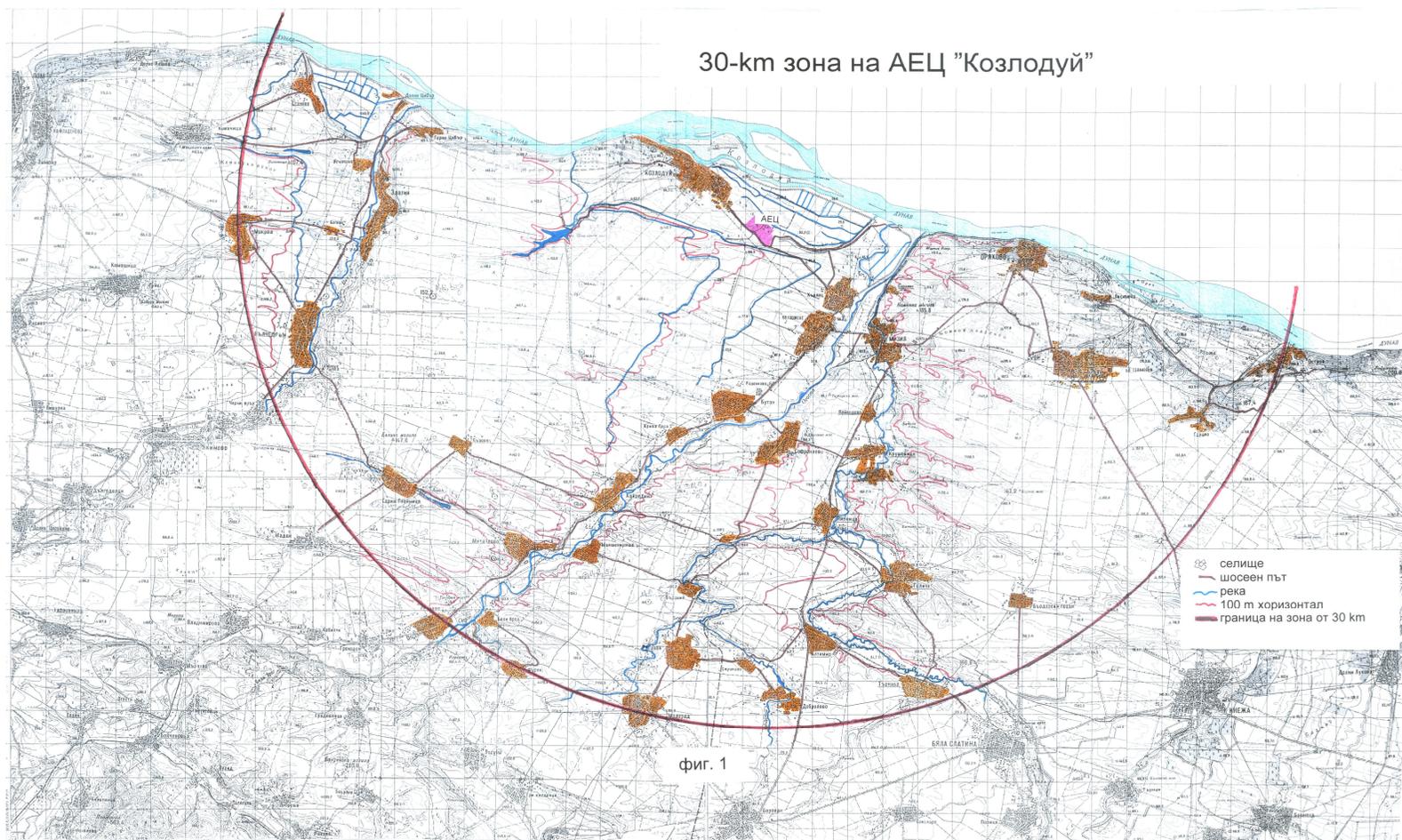


Fig. 1 30-km zone of Kozloduy NPP site

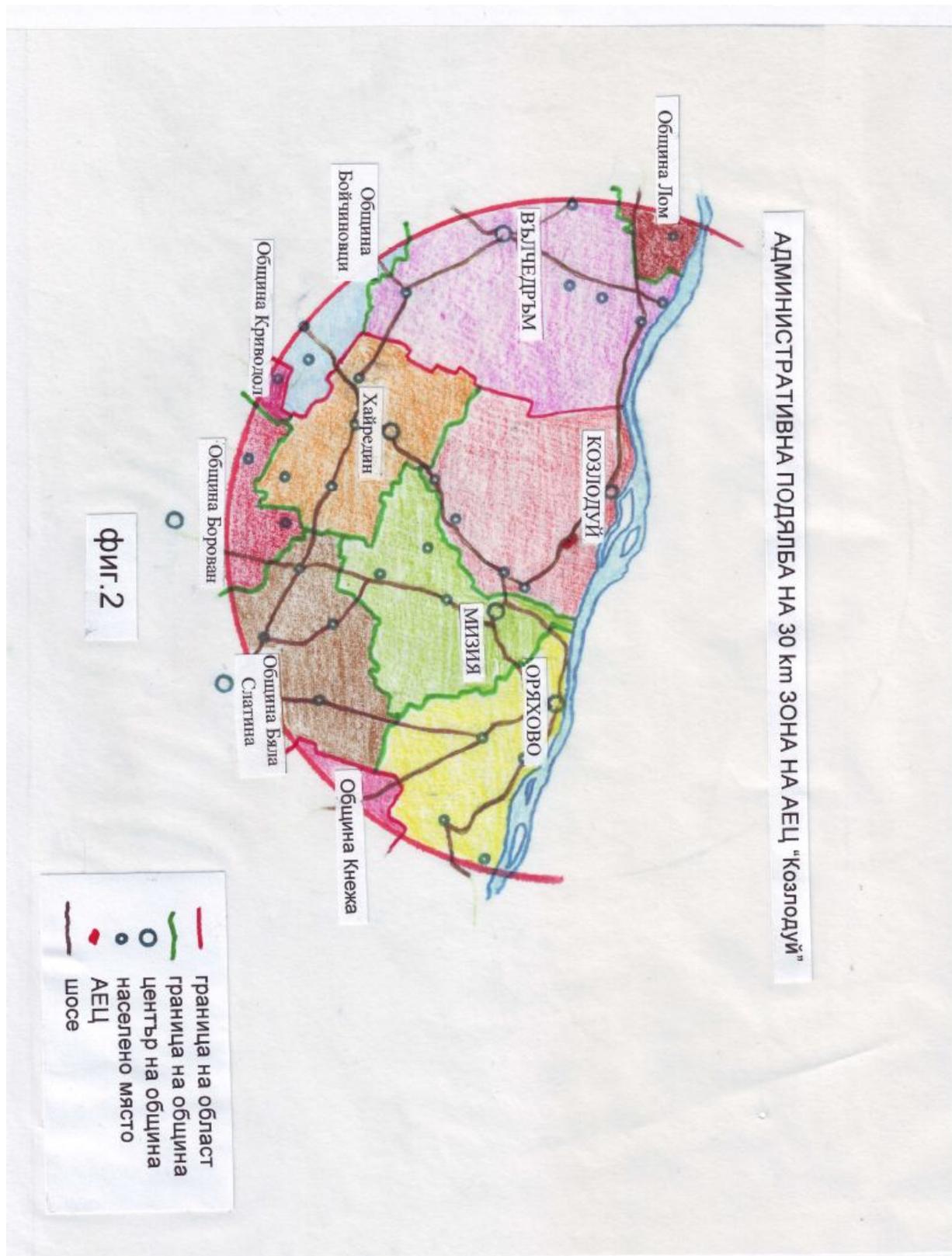


Fig. 2 Administrative regioning of the 30-km zone around Kozloduy NPP site

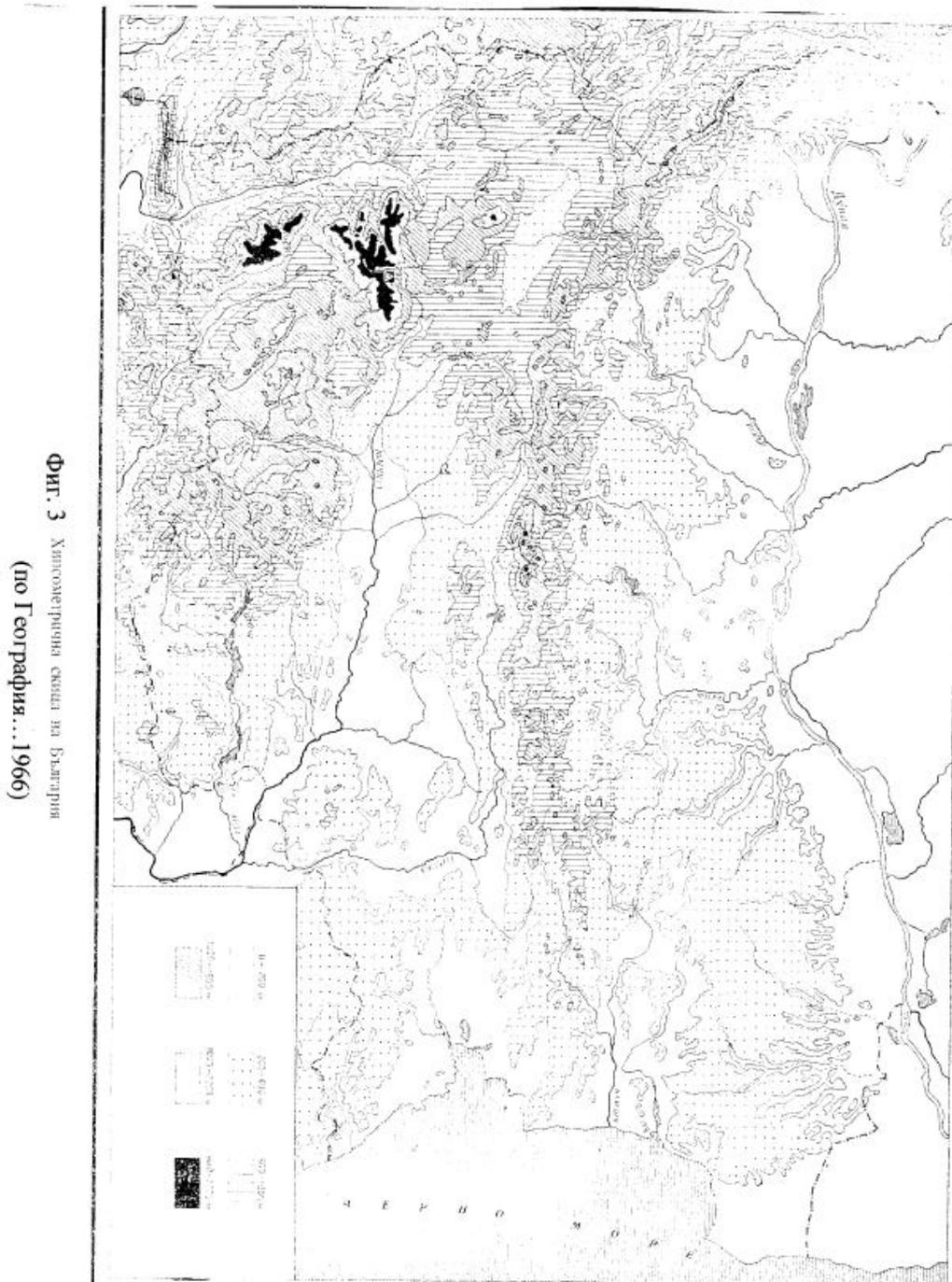


Fig. 3 Bulgaria's hypsometric map

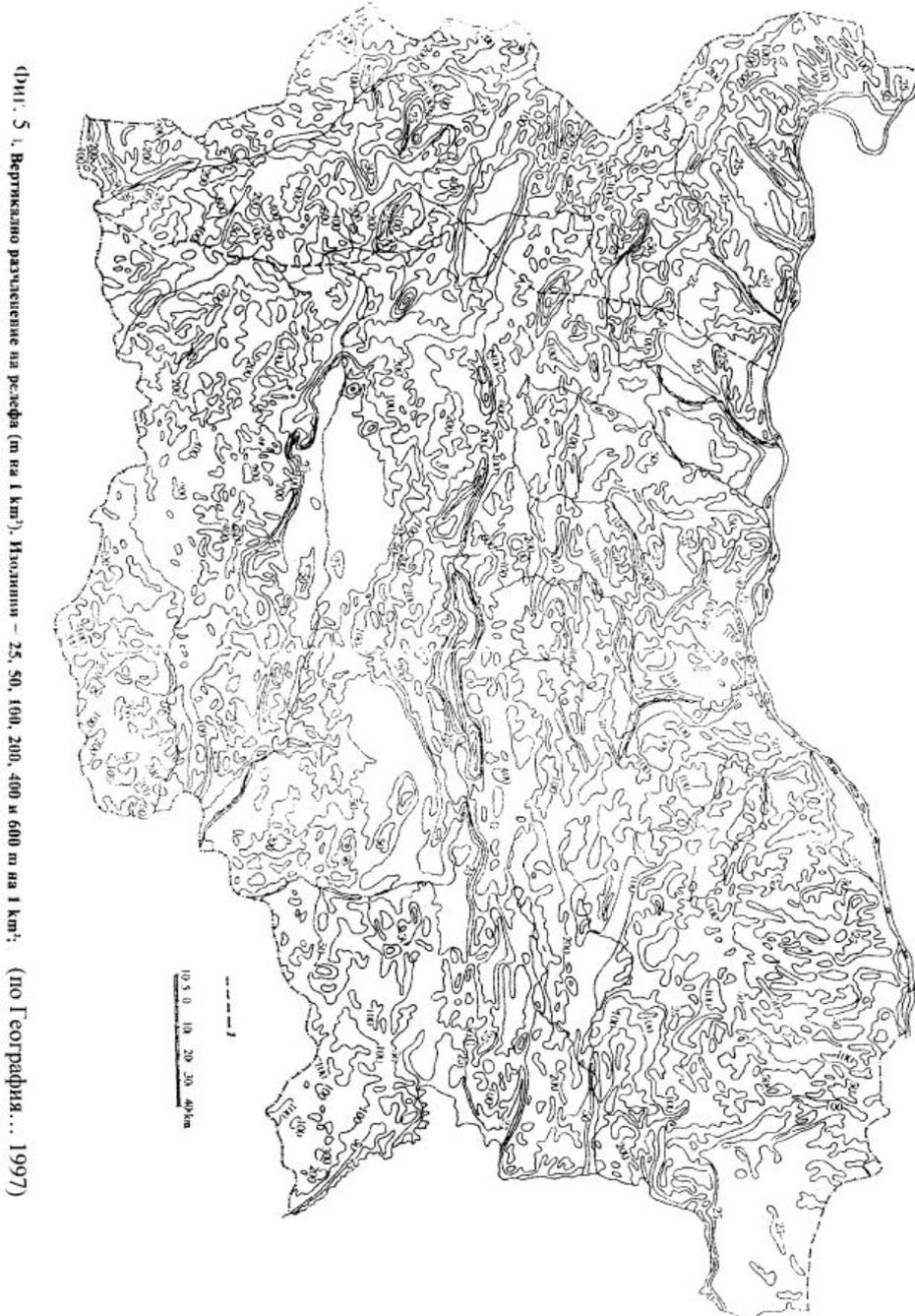


Fig. 4 Relief vertical segmentation

