
























MEMORIA DE SONDEOS

PROYECTO:	ESTUDIO DE RIESGO, AMENAZA Y VULNERABILIDAD VEREDA BAYETA DEL MUNICIPIO DE TIBANA	
PERFORACION:	AFLO 1 -2-3 SONDEO #1	
LOCALIZACION:	VEREDA BAYETA DEL MUNICIPIO DE TIBANA - DEPARTAMENTO DE BOYACA	
FECHA:	MAYO DE 2013	
	<input type="checkbox"/> inalterada <input type="checkbox"/> alterada	

SONDEO / APIQUE N°	MUESTRA N°	TIPO DE MUESTRA	PROF. (m)	COORDENADAS		PROPIEDADES FISICAS SUELOS					CORTE DIRECTO		RESISTENCIA AL CORTE SUELOS						
				E	N	Wn (%)	LL	LP	IP	CLASIF (U.S.C.)	P.T.N° 200 %	φ e	C Kg/cm2	λ HUMEDO Peso Unitario	λ SECO Peso Unitario	COMPRESION INCONFINADA qu	C	PENETROMETRO Kg/cm <sup>2</sup>	
AFLO 1	1		1,44	1,071,152	1,080,195	ARENISCA												> 4,5	
	2		2,94	1,071,152	1,080,195	2,28%	ARENISCA					18,506	24,3230	1,3305	2,0182	1,6782	2,7812	1,3906	> 4,5
	3		3,39	1,071,152	1,080,195	20,05%	33,1600	11,11	22,05	CLASIF	4,894	26,1970	0,88	1,9622	1,6346	1,8403	0,9202	> 4,5	
	4		3,74	1,071,152	1,080,195	22,07%	35,2	21,43	13,77	CLASIF	3,759	7,06850	0,5405	1,9970	1,6359	1,0540	0,5270	> 4,5	
	5		5,59	1,071,152	1,080,195	ARENISCA												> 4,5	
	6		6,44	1,071,152	1,080,195	10,58%	39,1000	33,33	5,77	ML-OL	5,188	34,9920	2,525	1,7850	1,4489	1,4215	0,7108	> 4,5	
	7		8,09	1,071,152	1,080,195													> 4,5	
	8		9,84	1,071,152	1,080,195	9,93%	41,3100	13,4	27,91	CL	5,553	31,7989	0,6505	1,9747	1,5770	0,7985	0,3993	> 4,5	
	9		10,44	1,071,152	1,080,195	ARENISCA												> 4,5	
	10		11,40	1,071,152	1,080,195	20,53%	38,1300	21,05	17,08	CL	10,564			2,0438	1,6957	1,0057	0,5029	> 4,5	
	11		11,90	1,071,152	1,080,195													> 4,5	
	12		14,90	1,071,152	1,080,195	17,77%	31,09	20,00	11,09	CL	2,248			2,1563	1,8310	0,6656	0,3328	> 4,5	
API 2	1		0,47	1,071,028	1,080,093	3,55%						7,322						> 4,5	
	2		1,08	1,071,028	1,080,093	2,14%	LODOLITA											> 4,5	
	3		2,02	1,071,028	1,080,093	0,53%	ARENISCA CARBONATADA											> 4,5	
API 3	1		1,5	1,070,912	1,079,023	1,55%	27,2	18,42	8,78	CL	2,715			2,0133	1,6461	0,4977	0,2489	> 4,5	
	2		2,30	1,070,912	1,079,023	2,09%	25,63	16,13	9,50	CL	5,625			2,0154	1,7118	0,9311	0,4656	> 4,5	
	3		3,39	1,070,912	1,079,023	11,71%													
S 1	1		1,15	1,060,599	1,080,457	22,1%	30,64	21,64	9,00	CL	7,296	8,1926	0,60905	2,2044	1,6175	0,7638	0,3819	2,5	
	2		1,96	1,060,599	1,080,457	34,1%	36,0800	25	11,08	CL				2,0198	1,7107	1,4723	0,73615	4,0	
	3		3,00	1,060,599	1,080,457	19,5%	30,9800	21,88	9,10	CL	9,933			1,9400	1,6444	1,3227	0,66135	3,0	
	4		5,00	1,060,599	1,080,457	14,9%	33,32	15,38	17,94	CL	4,058			2,0620	1,7522	1,3436	0,6718	2,25	

**MEMORIA DE ANALISIS DE ROCAS**

PROYECTO:	ESTUDIO DE RIESGO, AMENAZA Y VULNERABILIDAD VEREDA BAYETA DEL MUNICIPIO DE TIBANA
MUESTRAS:	
LOCALIZACION:	VEREDA BAYETA DEL MUNICIPIO DE TIBANA
FECHA:	

MUESTRO	DESCRIPCION	MUESTRA N°	TIPO DE MUESTRA	COORDENADAS		PROPIEDADES FISICAS ROCAS							RESISTENCIA AL CORTE ROCAS			
				E	N	W %	S %	n %	e	y (KN/m²)	yd (KN/m²)	ysat (KN/m²)	σc1 MPa	σc2 Kgf/cm²	TILT TEST α	ANGULO REPOSO α
AFLOR 1	ARENISCA	1		1,071,152	1,080,195	1,5138	22,5216	13,7823	0,0385	21,4020	21,0784	22,4374	27,300	273,001	44,900	35,830
	ARENISCA	2		1,071,152	1,080,195	4,516	8,0174	93,0442	2,7848	17,2457	16,5066	25,6808	15,959	159,593	43,200	37,590
	ARCILLOLITA	3		1,071,152	1,080,195	10,0251	36,925	59,2367	0,6145	20,9623	19,1808	25,0216	15,266	152,660	34,400	37,330
	ARCILLOLITA	4		1,071,152	1,080,195	8,5115	56,8801	30,6151	0,2478	19,5305	18,0542	21,0729			55,500	
	ARENISCA	5		1,071,152	1,080,195	2,468	28,6135	19,9179	0,0751	23,4148	22,8330	24,7969	6,821	68,210		37,550
	ARCILLOLITA	6		1,071,152	1,080,195	4,2787	66,534	17,0000	0,1377	27,2913	26,1708	27,8470				
	LODOLITA	7		1,071,152	1,080,195	1,4487	17,3152	26,1419	0,0746	31,2752	30,7923	33,3698				
	LODOLITA	8		1,071,152	1,080,195											
	ARENISCA	9		1,071,152	1,080,195	2,1794	35,935	16,6745	0,0720	27,7449	27,1549	28,7990	19,084	190,837	59,100	37,780
	LODOLITA	10		1,071,152	1,080,195	12,9128	53,8660	53,8555	0,8223	25,4904	22,5931	27,9033	18,180	181,803		37,070
	LODOLITA	11		1,071,152	1,080,195	3,622	60,2671	14,9168	0,1032	25,0311	24,1662	25,6370				37,760
	ARCILLOLITA	12		1,071,152	1,080,195											36,690
API 2	ARENISCA	1		1,071,028	1,080,093	3,6864	11,5196	74,8859	0,4092	22,4723	21,6714	29,0552				37,770
	LODOLITA	2		1,071,028	1,080,093											
	ARENISCA	3		1,071,028	1,080,093	0,6495	14,659	10,9011	0,0180	24,4732	24,3154	25,3903				
API 3	LODOLITA	1		1,070,912	1,079,023										60,800	
	ARCILLOLITA	2		1,070,912	1,079,023											41,056
	ARENISCA	3		1,070,912	1,079,023	1,6356	27,804	13,1964	0,0436	23,5530	23,1826	24,4838	16,573	165,735		