

Datashare 49:

Building a three-dimensional near-surface geologic and petrophysical model based on borehole data:

A case study from Chémery, Paris Basin, France

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Laboratory Measurement Table

Sample No.	Lithology	V_p^* Dry	Std. Dev.*	V_s^* Dry	Std. Dev.*	V_p^* Sat	Std. Dev.*	V_s^* Sat	Std. Dev.*	Porosity	Std. Dev.*	Density Dry	Std. Dev.*	Density Sat	Std. Dev.*
CS44	SSS	828.1	18.39	/	/	/	/	/	/	40	3.28	/	/	/	/
CS9	FAL	4669.68	590.99	2631.11	121.11	5013.9	266.3	1946.81	24.11	7.37	0.84	2.44	0.02	2.52	0.02
CS11	SMOB	957.36	17.13	/	/	/	/	/	/	42	3.28	/	/	/	/
CS16	BEAU	3345.23	161.06	1721	14.54	3643.45	57.08	1680.2	38.33	24.96	1.58	2	0.03	2.24	0.03
CS17	BEAU	3159.67	345.32	1746.76	22.39	3382.39	53.55	1332.49	8.87	27.21	1.09	1.92	0.02	2.19	0.02
CS18	BEAU	5093.43	402.15	2793.34	64.1	5277.37	532.57	2630.88	124.06	5.69	0.67	2.48	0.02	2.55	0.02
CS3	BEAU	4108.53	322.68	2390.39	131.99	4488.56	98.42	2193.64	22.05	13.5	0.84	2.29	0.02	2.42	0.02
CS5	BEAU	5034.12	122.55	2792.34	163.98	5105.66	151.19	2455.55	90.66	8.11	2.42	2.44	0.06	2.56	0.06
CS6	BEAU	4526.29	282.99	2485.42	229.17	4938.8	263.47	2234.68	48.48	11.94	0.95	2.31	0.02	2.44	0.02
CS4	CDF	1599.69	315.76	1083.27	8.15	1883.92	21.57	897.76	5.4	41.56	0.6	1.48	0.01	1.86	0.01
CS50	CDF	5627.63	493.6	2989.18	144.7	5678.29	398.56	3152.28	228.19	0.22	0.5	2.61	0.01	2.63	0.01
CS2	CF	3807.81	1085.43	2110.06	51.65	4624.58	233.59	2011.57	84.39	11.29	0.55	2.34	0.01	2.46	0.01
CS34	CF	4644.14	844.66	2501.57	34.5	4935.18	133.34	1879.36	72.61	6.37	0.88	2.46	0.02	2.55	0.02
CS46	CF	1151.97	675.96	/	/	/	/	/	/	15	3.28	/	/	/	/
CS14	WCF	3101.88	68.05	1980.8	86.54	3490.87	134.82	1822.98	26.55	20.21	1.15	2.08	0.02	2.29	0.03
CS15	WCF	3408.17	157.54	2160.07	21.81	3944.22	213.84	1614.39	14.38	10.40	0.48	2.32	0.01	2.43	0.01
CS8	WCF	2015.69	72.81	1181.04	30.32	2255.09	26.57	1082.08	5.85	36.61	3.28	1.59	0.05	1.97	0.06
CS25	TJT	3753.9	673.34	2066.79	21.74	4058.15	72.25	1906.28	23.03	31.61	0.63	1.87	0.01	2.15	0.01
CS23	TJT	3579.62	205.6	2065.97	142.35	3992.12	208.88	1424.87	12.15	12.61	3.07	2.21	0.07	2.43	0.07
CS38	TJT	3050.7	187.64	1872.61	118.62	3176.73	48.46	1323.23	17.15	27.74	1.75	1.97	0.03	2.23	0.04
CS22	TB	4415.69	309.1	2417.5	37.45	4592.18	154.67	2238.58	51.08	13.30	0.62	2.33	0.01	2.46	0.01
CS33	TB	1327.47	144.27	763.74	19.25	1516.55	63.03	600.97	6.39	44.56	1.28	1.46	0.02	1.85	0.02
CS48	TB	4030.55	326.29	1825.87	52.14	3681.33	118.33	1826.22	94.23	5.1	0.97	2.07	0.02	2.13	0.02
CS29L	TB	1857.15	187.18	1145.47	13.99	2071.66	19.67	829.79	6.06	42.7	3.28	/	/	/	/
CS29S	TB	1169.16	93.74	818.98	35.09	1685.26	17.32	726.71	3.56	47.37	3.28	/	/	/	/
CS30	CI	4701.29	501.4	2807.81	515.77	4740.03	176.96	2634.86	53.52	6.26	1.01	2.19	0.02	2.27	0.02

*Std. Dev. = standard deviation; V_p , V_s dry = P- or S-wave velocity in dry conditions; V_p , V_s sat. = P- or S-wave velocity in saturated conditions. For the lithology acronyms, please see text.

[Datashare/data_049/Petrel2012.zip](#)

The complete 3D project containing the lithological interfaces, faults, and the petrophysical data is included in the zip file. This file can be read only with Schlumberger software Petrel(r), version 2012.3 and up.

[Datashare/data_049/Move2012/Chemery.mve](#)

This is the same 3D project, but containing lithological interfaces and faults only. This file can be opened with the software "Move" from Midland Valley. Alternatively, the file can be opened in the free Move-viewer, which can be downloaded from <http://www.mve.com/software/moveviewer>.