

1) Bed-to bed correlation

Sample	Bed number from top	Lithology	Quartz %	Calcite %	Dolomite %	Kaolinite/Dickite %	Muscovite %	Paragonite %	Chlorite %	Biotite %	Rutile %
Sections C1-C3											
C1-0	21	M	36.5	20.9			5.2	31.3	6.1		
C1-1	20	Sm	52.7	33.2			3.4	11.2	0.4		
C1-2	19	Gm	70.3	3.4			6.9	17.4	2.1		
C1-3	18	M	38.2	12.1	4.4		4.6	35.0	5.8		
C1-4	17	Sc	61.1	9.2			8.3	17.0	4.5		
C1-5	16	Svc	60.3	8.4			11.8	16.5	3.0		
C1-6	15	M	36.7	5.0	4.9		13.1	36.7	3.5		
C1-7	14	Sc	63.1	1.3			9.3	24.9	1.5		
C1-8	13	Sm	53.8	26.8			5.9	13.0	0.4		
C1-9	12	Sm-Sc	63.3	13.3			6.3	14.6	2.5		
C1-10	11	M	23.9	15.2	13.8		15.1	27.3	4.7		
C1-12	10	Sc	64.7	10.6			5.7	16.9	2.2		
C1-13	9	Sm	61.8	14.6			8.9	11.9	2.8		
C1-14	8	Sc	54.2	10.6			10.0	22.2	3.1		
C1-15	7	Svc	64.9	6.9			4.5	17.0	6.6		
C1-16	6	M	39.0	10.3	13.0		8.3	26.0	3.3		
C1-17	5	Gm	60.6	1.2	13.7		0.0	20.8	3.8		
C1-18	4	Sm	66.2	1.1			7.1	18.4	7.2		
C1-19	3	M	43.2	8.5	7.1		10.3	27.1	3.9		
C1-20	2	Sc	56.5	1.6			10.2	26.6	5.1		
C1-21	1	Svc	66.6	6.8			5.4	18.4	2.5		
C2-1	22	Sm	38.9	38.8	1.0		4.6	14.1	2.4		
C2-2	21	M	30.2	25.6	3.7		5.9	30.4	4.3		
C2-3	20	Sm	40.8	33.5			6.6	14.4	1.8		
C2-4	19	Gm	66.0	1.6			8.9	21.3	2.2		
C2-5	18	M	30.3	22.5	5.2		8.8	27.0	2.5		
C2-6	17	Sc	68.2	0.9			7.8	19.3	3.7		
C2-7	16	Svc	65.9	0.0	6.8		6.3	18.6	2.4		
C2-9	15	M	41.4	4.1			10.2	32.8	5.9		
C2-10	14	Sc	61.8	4.5			8.6	21.5	3.6		
C2-11	13	Sm	64.7	7.8			6.2	19.5	1.8		
C2-12	12	Sm-Sc	56.8	12.6			7.4	18.5	4.7		
C2-13	11	M	39.3	10.9			8.6	32.1	5.1		
C2-14	10	Sc	63.3	3.9			5.8	22.6	4.5		
C2-15	9	Sm	57.8	18.3			4.9	15.2	3.8		
C2-16	8	Sc	60.4	0.0	8.3		8.0	18.2	5.1		
C2-18	7	Svc	62.3	1.6			8.2	22.6	5.2		
C2-19	6	M	38.4	14.5	4.1		5.1	33.2	4.7		
C2-20	5	Gm	63.8	0.3			7.6	20.4	7.5		
C2-21	4	Sm	67.2	3.5			9.1	17.0	3.2		
C2-22	3	M	37.4	0.0	1.5		12.7	29.7	16.8		
C2-23	2	Sc	58.1	0.0	6.7		9.4	20.3	5.5		
C2-24	1	Svc	62.5	2.0			12.0	21.4	2.1		
C3-1	23	M	29.7	23.9	8.8		6.0	27.7	3.9		
C3-2	22	Sm	53.7	30.2			4.6	9.8	1.7		
C3-3	21	M	29.4	28.3	2.6		6.9	26.2	2.2		
c3-4	19	Gm	54.5	18.6			9.2	16.2	1.3		
C3-5	18	M	44.9	3.2	4.8		10.7	30.0	6.3		
C3-6	17	Sc	63.6	0.0			11.1	20.0	5.3		
C3-7	16	Svc	67.7	1.9			8.2	18.5	3.4		
C3-8	15	M	41.5	5.2			9.3	32.3	5.7		
C3-9	14	Sc	55.2	16.6			5.1	20.9	2.1	0.1	
C3-11	12	Sm-Sc	60.1	7.4			7.2	11.3	1.9	12.1	
C3-12	11	M	44.3	4.1	5.5		7.3	30.0	8.9		
C3-13	10	Sc	58.3	6.6			5.0	21.4	4.2		
C3-14	9	Sm	44.4	8.0	10.8		10.6	21.7	3.5		
C3-15	8	Sc	58.6	1.5	8.9		8.9	20.9	1.2		
C3-17	7	Svc	65.4	7.4			6.0	17.1	4.1		
C3-19	6	M	37.9	14.2	3.6		9.1	27.8	7.4		
C3-20	5	Gm	59.5	2.3			4.8	23.5	10.3		
C3-21	4	Sm	56.5	3.5	8.1		10.1	19.5	2.4		
C3-22	2	Sc	66.5	3.6			7.8	20.8	1.3		
C3-23	1	Svc	59.9	0.0			12.0	23.2	4.3		

Sections LSII1-LSII3

LSII1-1	14	Sm	69.5	6.1	0.4	9.3	2.1	10.2	1.7	0.7
LSII1-3	13	Sm	53.8	25.2	0.5	7.6	2.0	9.2	1.6	
LSII1-5	12	Sm-Sc	54.7	9.2		13.7	1.9	18.3		2.3
LSII1-6	11	Sm	51.0	21.0	0.3	6.1	3.8	17.9		
LSII1-7	10	Sm	51.0	9.0		5.9	3.4	26.7		0.9
LSII1-8	9	Sm	66.5	6.8	0.6	9.2	2.7	12.0	1.6	0.5
LSII1-9	8	Sm	49.0	23.6		8.9	1.7	15.1 ?		1.7
LSII1-10	7	Sm-Sc	55.5	15.6		10.4	3.1	14.5 ?		0.9
LSII1-12	6	M	29.3	14.1	1.7	16.1	6.8	16.7	15.4	
LSII1-13	5	Sm	37.0	18.9	0.2	11.1	2.5	15.9	14.2	
LSII1-14	4	Sm	59.4	9.8		10.4	3.2	14.6	2.0	0.6
LSII1-15	3	M	37.4	24.2	2.4	20.2	5.3	8.6	1.7	0.4
LSII1-16	2	Sm	38.8	23.3	4.9	19.7	4.9	7.5	1.8	
LSII1-17	1	M	39.1	23.8	3.9	18.9	4.9	7.4	1.5	
LSII2-1	14	Sm	65.6	15.5		7.2	2.1	7.9	1.1	0.5
LSII2-2	13	Sm	57.5	19.1	0.7	6.8	4.9	7.8	1.9	
LSII2-3	12	Sm-Sc	54.4	7.3		7.5	0.5	17.5	12.3	0.6
LSII2-5	9	Sm	69.8	8.7	0.5	7.3	1.7	10.5	1.5	
LSII2-6	8	Sm	64.4	11.6		8.6	2.6	10.7	1.5	0.6
LSII2-8	7.5	Sm	63.1	9.0	1.9	9.7	2.8	11.1	2.0	0.4
LSII3-2	12	Sm-Sc	55.0	21.0		9.0	2.3	11.6	1.0	
LSII3-3	11	Sm	68.5	4.2	0.6	12.2	4.1	8.0	1.2	0.4
LSII3-5	7	Sm-Sc	58.8	14.2		9.7	3.1	12.5	1.4	
LSII3-7	6	M	29.7	15.6	1.9	27.6	6.5	16.2		
LSII3-8	5	Sm	61.8	13.8		9.2	3.0	10.0	1.5	
LSII3-9	4	Sm	57.3	11.1		12.7	4.1	12.6	1.7	0.5
LSII3-12	3	M	29.6	22.5	5.3	23.8	6.7	8.4	3.7	
LSII3-13	2	Sm	31.8	21.4	1.3	12.0	6.3	25.9		

Sections LNI1-LNI4

LNI1-1	26	Sm-Sc	42.7	11.1		9.8	4.5	27.7	3.7	0.6
LNI1-2	25	Sm-Sc	59.9	6.5	0.5	10.5	5.4	12.6	2.7	0.5
LNI1-3	24	Sm	45.1	15.2		12.2	2.8	24.2		0.7
LNI1-4	23	Sm	51.7	12.3	4.0	14.5	3.8	12.0	1.1	0.5
LNI1-5	22	M	43.4	16.9	3.9	20.8	4.7	10.2		
LNI1-6	21	Sm	56.2	17.2	1.4	10.0	4.2	8.1	2.4	0.4
LNI1-7	20	Sm	61.8	12.8	0.2	9.0	2.5	12.1	1.5	0.5
LNI1-8	19	Sm	49.1	26.0		7.9	2.1	14.3		0.6
LNI1-9	18	M	37.2	15.5	0.2	20.3	9.5	17.3		
LNI2-2	21	Sm	59.0	12.8	0.5	10.0	3.8	10.4	3.5	
LNI2-3	20	Sm	45.7	11.9		8.6	2.9	30.0		0.9
LNI2-4	19	Sm	63.1	11.2	1.6	8.6	2.3	11.5	1.3	0.4
LNI2-5	18	M	28.3	19.6	1.8	14.6	2.8	12.3	19.8	
LNI2-6	17	Sm	47.9	20.5		6.1	1.8	14.4	8.9	
LNI2-7	16	Sm	27.9	22.6	3.4	19.8	2.4	8.5	14.8	0.6
LNI2-8	15	Sm	42.7	15.2		9.2	1.9	17.4	13.1	0.6
LNI2-9	14	Sm-Sc	57.3	11.7	0.3	13.4	3.6	10.6	2.5	0.6
LNI3-1	17	Sm	28.7	18.9		11.1	5.4	19.9	15.7	
LNI3-2	16	Sm	29.3	24.3	6.4	21.0	5.4	13.7		
LNI3-3	15	Sm	49.0	11.7		10.9	1.4	21.7		
LNI3-4	14	Sm-Sc	66.2	11.1	0.2	9.8	2.5	7.8	1.8	0.5
LNI3-5	13	Sm-Sc	55.2	9.4	0.7	10.8	2.9	9.4	2.2	0.5
LNI3-6	12	M	41.1	20.7	4.1	17.5	4.3	7.9	3.7	0.6
LNI3-7	11	M	26.3	28.4	5.9	21.4	5.5	11.6		
LNI3-8	10	Sm	39.7	17.5	1.2	6.6	1.6	19.2	13.3	0.9
LNI3-9	9	M	28.2	23.1	0.9	22.1	3.8	20.7		
LNI3-11	8	Sm-Sc	54.4	15.0	0.3	12.6	2.9	12.2	2.1	0.6
LNI3-12	7	Sm	57.0	21.1	0.9	7.8	2.0	9.8	1.0	0.4
LNI3-13	6	Sm	48.2	17.4		5.6	2.9	14.7	10.6	0.7
LNI3-14	5	M	31.3	18.0	5.2	25.9	6.4	9.3	3.9	
LNI3-15u	4	Sc-Svc	55.2	4.6	1.4	15.4	3.6	15.3	3.8	0.9
LNI3-15	3	Sc	51.5	5.5	0.4	10.5	4.6	14.1	12.7	0.6
LNI3-16	2	Sc-Svc	38.6	11.8		11.9	1.3	18.7	16.9	
LNI3-17	1	Sm	42.4	18.2		9.7	2.6	15.4	10.8	0.9
LNI4-1	11	M	25.3	24.6	2.8	18.6	2.8	8.3	15.6	
LNI4-2	10	Sm	35.7	27.2		9.6	1.3	15.3	10.9	
LNI4-3	9	M	26.5	23.7	3.4	19.9	2.6	5.7	16.9	

LNI4-5	8	Sm-Sc	55.3	11.7		7.1	1.6	8.9	9.7	
LNI4-7	7	Sm	41.4	19.0		7.7	4.5	22.3	4.0	1.1
LNI4-9	6	Sm	55.3	18.3	0.8	8.5	1.8	13.3	1.5	0.4
LNI4-10	5	M	46.9	11.4	1.8	20.0	5.1	11.0	3.6	
LNI4-11u	4	Sc-Svc	54.3	15.5	0.2	14.7	3.4	9.9	2.1	
LNI4-11	3	Sc	38.0	8.2		11.6	4.2	20.3	16.7	1.0
LNI4-13	2	Sc-Svc	47.2	6.2		12.6	1.7	15.2	16.3	0.7

2) Meso-scale correlation

Sample	m from bottom	Lithology	Quartz %	Calcite %	Dolomite %	Kaolinite/Dickite %	Muscovite %	Paragonite %	Chlorite %	Biotite %	Rutile %
Unit I											
LNG-1	0.58	Svc	36.3	9.2			7.6	5.5	23.4	15.8	0.8
LNG-2	0.8	Sm	29.9	21.2			9.2	2.3	21.5	15.1	0.8
LNG-3	1.05	Sc	41.7	3.7			11.8	4.9	19.4	17.4	1.1
LNG-4	1.43	Sm	56.4	23.2	0.2		7.7	1.7	9.3	1.1	0.4
LNG-5	1.88	Sm	59.9	9.3	1.1		13.3	3.5	10.5	1.7	0.6
LNG-6	2.06	M	24.8	9.2	1.0		22.5	4.1	14.3	23.9	
LNG-7	2.83	Gm	38.8	19.9			7.3	1.3	16.9	15.7	
LNG-8	3.9	Sm	55.5	16.3	0.3		10.5	3.2	12.5	1.2	0.4
LNG-9	5.2	Gc	46.2	13.2			10.2	4.9	14.6	10.9	
LNG-10	5.57	Sc	59.5	8.1			13.1	3.3	13.4	2.0	0.6
LNG-11	5.78	Sm	58.3	18.7			8.6	2.8	9.6	2.0	
LNG-12	6.23	Sm	64.0	12.9	0.3		8.6	1.8	10.5	1.6	0.5
LNG-13	6.76	Sm	61.6	12.8	0.2		9.4	2.6	11.0	1.6	0.7
LNG-14	7.13	Sm	64.7	8.9	0.3		12.1	3.2	8.7	1.6	0.5
LNG-15	7.31	Sm	58.2	18.1	0.7		7.4	2.3	10.7	2.2	0.4
LNG-16	7.56	Sm	43.2	14.0	2.7		22.0	5.5	9.6	3.1	
LNG-17	7.81	Sm	63.7	12.2	0.6		8.1	2.1	11.5	1.3	0.4
LNG-18	7.99	Sm	55.1	13.5	0.3		14.0	4	10.7	2.1	0.5
LNG-19	8.37	M	40.3	15.7	1.2		23.0	5.8	9.8	3.8	
LNG-20	8.58	Sm	69.4	8.9	0.5		8.4	2	9.1	1.8	
LNG-21	8.81	Sm	54.9	15.6			3.9	1.5	14.8	9.3	0.5
LNG-22	9.13	Sm	65.8	13.8	0.2		7.2	2.3	8.9	1.4	0.4
LNG-24	9.86	Sm	60.1	15.1	0.6		7.7	1.9	12.1	1.3	1.1
LNG-25	10.16	M	22.7	16.2	2.1		15.5	5.9	14.9	18.9	
LNG-26	10.68	M	23.0	21.0	1.7		19.5	2.7	12.8	18.0	0.8
LNG-27	10.86	Sm	59.4	15.7	0.4		9.6	2.6	10.1	2.0	0.4
LNG-28	11.21	M	24.1	20.9	3.3		17.0	2.4	10.9	20.1	
LNG-29	11.73	Sc	65.9	10.0	0.4		11.0	2.3	8.8	1.6	
LNG-30	11.97	Sc	56.1	16.1	0.3		13.5	3.2	8.9	1.7	
LNG-31	13.88	M	30.2	16.1	0.6		20.0	3.1	12.2	17.8	
LNG-32	14.33	M	27.4	21.3			13.4	2.5	12.1	20.4	0.9
LNG-33	14.98	M	22.0	25.4	1.7		20.7	3.2	10.0	16.5	0.4
LNG-34	15.65	M	20.8	25.8	5.4		17.9	3.3	9.9	15.6	
LNG-35	16.21	Sm-Sc	38.2	13.3			10.8	4	19.6	14.2	
LNG-36	16.58	Sc	56.1	20.8			9.4	2.9	8.6	2.0	
LNG-37	16.92	Sm-Sc	62.6	13.2			9.8	2.3	8.6	1.2	1.0
LNG-38	17.15	Sm	63.9	15.5			5.1	1.6	10.9	2.1	0.6
LNG-39	17.48	Sm-Sc	65.9	11.6	0.2		8.0	2.6	9.5	1.5	0.7
LNG-40	17.85	M	36.3	15.5	2.8		23.1	6.4	11.1	4.1	0.7
LNG-41	18.13	Gm	58.6	11.1	0.6		14.4	3.2	10.0	2.1	
LNG-42	18.51	Gm	59.6	11.7	0.2		12.6	3.4	11.1	1.5	
LNI1-1	1.24	Sm-Sc	42.7	11.1			9.8	4.5	27.7	3.7	0.6
LNI1-2	1.48	Sm-Sc	59.9	6.5	0.5		10.5	5.4	12.6	2.7	0.5
LNI1-3	1.82	Sm	45.1	15.2			12.2	2.8	24.2		0.7
LNI1-4	1.98	Sm	51.7	12.3	4.0		14.5	3.8	12.0	1.1	0.5
LNI1-5	2.3	M	43.4	16.9	3.9		20.8	4.7	10.2		
LNI1-6	2.48	Sm	56.2	17.2	1.4		10.0	4.2	8.1	2.4	0.4
LNI1-7	2.91	Sm	61.8	12.8	0.2		9.0	2.5	12.1	1.5	0.5
LNI1-8	3.13	Sm	49.1	26.0			7.9	2.1	14.3		0.6
LNI1-9	3.48	M	37.2	15.5	0.2		20.3	9.5	17.3		
LNI3-1	4.12	Sm	28.7	18.9			11.1	5.4	19.9	15.7	
LNI3-2	4.65	Sm	29.3	24.3	6.4		21.0	5.4	13.7		
LNI3-3	4.88	Sm	49.0	11.7			10.9	1.4	21.7		
LNI3-4	5.12	Sm-Sc	66.2	11.1	0.2		9.8	2.5	7.8	1.8	0.5
LNI3-5	5.73	Sm-Sc	55.2	9.4	0.7		10.8	2.9	9.4	2.2	0.5

LNI3-6	6.71	M	41.1	20.7	4.1	17.5	4.3	7.9	3.7	0.6
LNI3-7	7.87	M	26.3	28.4	5.9	21.4	5.5	11.6		
LNI3-8	8.77	Sm	39.7	17.5	1.2	6.6	1.6	19.2	13.3	0.9
LNI3-9	9.26	M	28.2	23.1	0.9	22.1	3.8	20.7		
LNI3-10	9.54	Sm	68.6	15.2	1.0	5.6	1.2	6.8	1.3	0.4
LNI3-11	9.68	Sm-Sc	54.4	15.0	0.3	12.6	2.9	12.2	2.1	0.6
LNI3-12	10.13	Sm	57.0	21.1	0.9	7.8	2.0	9.8	1.0	0.4
LNI3-13	10.62	Sm	48.2	17.4		5.6	2.9	14.7	10.6	0.7
LNI3-14	10.93	M	31.3	18.0	5.2	25.9	6.4	9.3	3.9	
LNI3-15u	11.07	Sc-Svc	55.2	4.6	1.4	15.4	3.6	15.3	3.8	0.9
LNI3-15	11.38	Sc	51.5	5.5	0.4	10.5	4.6	14.1	12.7	0.6
LNI3-16	11.91	Sc-Svc	38.6	11.8		11.9	1.3	18.7	16.9	
LNI3-17	12.34	Sm	42.4	18.2		9.7	2.6	15.4	10.8	0.9

Key Lithology: M – siltstones and mudstones, Sf – fine and very fine sandstones, Sm – medium-grained sandstones, Sc – coarse sandstone, Svc – very coarse to granular sandstones, Gm – matrix-supported sandy conglomerates, Gc – clast-supported conglomerates