

HOLE C0002P

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 1

Date: 12/12/13

OBSERVER:

ANA/ANJA/Chen/Rina

Sample ID	Mudstone					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture			
9	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Silty claystone. GREENISH GREY, FIRM OBS. THIN PYRITE VEIN, LOOSE VERY FINE SAND/SILT 30% cement?
14	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Greenish grey, loose fine silt silty claystone 30% CMT
16	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Silty claystone, greenish grey. fine silt 20% CMT
18	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Silty claystone, as above 20% CMT
20	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE <5% CMT
25	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, still a little bit metal pieces. Grain with white stuff in it. <5% CMT maybe drill mud?
28	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, still few metal NO CEMENT SEEN
30	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	VERY CLAY RICH, FEW METAL KIND OF SOFT, Calcite
32	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE CALCITE PIECES
34	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, few metal pieces trace amount of cement?
36	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, few metal pieces. trace amount of cement?
43	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE. Calcite pieces. few metal pieces, reddish brown firm object
45	70	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	30	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Siltstone only, calcite pieces few metal pieces, Mica pieces? drill mud?
47	80	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	20	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Silt stone (or sandstone) increase few metal pieces, calcite?

Wood/Lignite Fossiles abundances:

N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

HOLE C0002P

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 2 Date: 20/12/13 OBSERVER: Chen, Rina / UWA

Sample ID	Mudstone <i>Subsilty</i>					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture			
49	65	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	35	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	FEW METAL PIECES, calcite pieces
53	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Silty claystone; very weak zone; Drill mud residue. few hard undisturbed formation cuttings; slicken lines
56	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Very weak as above; Calcite pieces
58	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE / MUDSTONE: MEDIUM GREY, FIRM, CRUMBLY, SL STICKY IN PLACES. TR SST: VERY FINE-FINE, MOD SORTED.
61	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: AS ABOVE BUT MORE SILTY. SANDSTONE: VERY FINE-FINE, MOD SORTED, LT GR.
63	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: AS ABOVE - OBS. FOSSIL FEATURE(?) WITH ORG. MATTER. SANDSTONE - DESCRIBED BELOW *
71	65	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	35	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	OCCURRENCE OF SAND, SLICKEN LINES ON SILTY CLAYSTONE. MED. GREY OR GREENISH GREY? → PHOTO 3
73	80	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	20	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	MOSTLY LOOSE SAND, SLICKEN LINES, SILTY CLAYSTONE MED GREY? CORE 2
76	65	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	35	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	FEW METAL PIECES, LOOSE SAND, SLICKEN LINES, CORE 3
81	70	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	30	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	LOOSE SAND MOSTLY, SILTY CLAYSTONE, LITTLE STICKY IN SOME PLACES, SLICKEN LINES, CORE 4
83	80	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	20	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	RUSTY METAL PIECES, AS ABOVE CORE 5
86	80	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	20	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE CORE 6
74	85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	few pieces of highly polished silty claystone. → SLICKEN LINES SURFACE. loose sand; some undisturbed cuttings.
82	85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	few metal pieces; slickenlines. undisturbed cuttings pieces.

\* SANDSTONE: LIGHT - MEDIUM GREY, FINE - VERY FINE GRAINS, MODERATELY SORTED, SILTY MATRIX, POORLY CONSOLIDATED, KEROGEN-RICH IN PLACES (DARK BROWN "OILY" STAINS - ORGANIC MATTER)

Wood/Lignite Fossiles abundances:

N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

⊕ DICA

⊞ pillow

⊞ undisturbed

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 3 Date: 12/28/13 OBSERVER: Chen/ANA

Sample ID	Mudstone <i>Silty claystone</i>					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture			
85	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Few metal pieces, slickenlines. Silty claystone. TR w/ CARB/CALC CRUMBLY MAT
107	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Undisturbed cutting pieces. Slickenlines. * SANDSTONE DETC. BELOW
109	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Silty claystone. Slickenlines
111	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Few metal pieces; slickenlines. Silty claystone. SANDSTONE COLOUR BANDING OBS. DARK BROWN OIL STAIN (PHOTO 4)
113	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Very few metal pieces; slickenlines. Silty claystone. CARB/CALC VEIN MAT. (WHITE, CRUMBLY)
115	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Few metal pieces; slickenlines; "big white soft piece (drilling mud?)"
117	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5-10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Slickenlines. SANDSTONE: FINE, SL CALB CNT, w/f GRAV., BANDING
121	80	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	20	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Few slickenlines. SANDSTONE: AS ABOVE
123	70	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	30	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	Few slickenlines. more sand. Silty claystone; dark stripes (drilling disturbance)
125	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: FIRM, CRUMBLY. FEW HARD-VERY HARD CUTTINGS w/ POLISHED SURFACES AND SLICKENLINES; FEW SOFT CLAYEY PIECES.
127	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: FEW BLACK LAMINAE (OM-RICH)
129	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: AS ABOVE BUT MORE CLAYEY; NON-SILTY IN PLACES - FIRM, HOMOGENEOUS, MEDIUM GREY. RARE SLICKENLINED CHIPS.
131	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: VERY CLAYEY AS ABOVE. COMMON BLACK OM LAMINAE / PARTS. FEW CARB/CALC VEIN (WHITE)
133	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: GENERALLY SLIGHTLY MORE SILTY THAN ABOVE.

#107 SMW: SANDSTONE: LIGHT GREY, VERY FINE-FINE, POORLY CONSOLIDATED, CRUMBLY/FRIABLE, FAIRLY SORTED, OFF WHITE MATRIX, MOSTLY QUARTZ (+ FELDSPAR?) GRAINS, COMMON MAFIC MINERALS (INC. BIOTITE), COMMON CHLORITE AGGREGATES, APPARENT BANDING/ALIGNMENT OF MICAS, NO VISIBLE CEMENT. FAIR VISIBLE  $\phi$ .

Wood/Lignite Fossiles abundances:  
N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

2210.5 mlBSF

check

COMMON PDC PIVOTED CUTTINGS

PHOTO? w/wrong sample# (107)

picture taken drilling disturbance

\* \*

WSPF = follow depth

\* (ALMOST) CLAYSTONE IN PART

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 4 Date: 29/12/13 OBSERVER: ANA/ANJA

Sample ID	Mudstone					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture			
136	90-95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5-10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SILTY CLAYSTONE: MEDIUM GRAY, FIRM; FEW HARD SLICKENLINED PIECES. SANDSTONE: AS ABOVE. COMMON CARB/CALC PIECES
138	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SILTY CLAYSTONE: CLAY RICH, FIRM, GENER- ALLY CRUMBLY, BUT SLIGHTLY STICKY WHEN MORE CLAYEY. SANDSTONE: LENS PIECES WITHIN CLAYSTONE
141	95-100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0-5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SILTY CLAYSTONE: AS ABOVE
143	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SILTY CLAYSTONE: GENERALLY MORE SILTY THAN ABOVE. FEW HARD SLICKEN- LINED / POLISHED PIECES.
145	85-90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10-15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE, BUT WITH A LITTLE MORE SANDSTONE. FEW CARB/CALC VEIN PIECES.
149	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	CALCITE VEIN, SANDSTONE, NO SLICKENLINES ON MUDROCK, CLAY/RICH
151	85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SAND LOOSE + FEW PIECES, WHITE PIECES SILTY CLAYSTONE + CLAYSTONE SLICKENLINES FEW CLAYSTONE WITH DARK BANDS
155	85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	FEW SAND GRAINS, LOOSE SAND + CLASTS NO SLICKENLINES, SAND LOOSE IN SILTY CLAYSTONE CLAY-RICH
157	85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	NO SLICKENLINES, CLAY + SILTY CLAYSTONE AS ABOVE
159	75-80	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	20-25	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SLICKENLINES, FEW DARK LAMINAE ON SILTY CLAYSTONES.
161	80	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	25	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	FEW DARK BANDS ON SANDSTONE
168	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SLICKENLINE, ALMOST ALL CLAYSTONE, SOFT, STICKY
165	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	ALL CLAY + SILTY CLAYSTONE
163	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SAND VERY FINE IS LESS, LOTS OF CLAYSTONE, DARK BANDS + LAMINAE

#138 SMW - SANDSTONE: LIGHT GRAY, VERY FINE - FINE, POORLY CONSOLIDATED, CRUMBLY / FRAGILE, FAIRLY SORTED, OFF WHITE SILTY MATRIX, MOSTLY QUARTZ (+ FELDSPAR?) GRAINS, COMMON MAFICS (BIOTITE, PYROXENE (AMPHIBOLE)), COMMON PYRITE AGGREGATES, FEW CHLORITE, NO VISIBLE CEMENT, NON CARBONATED; THIN BLACK LAMINATION. → APPEARS TO BE A PIECE FROM A SANDSTONE LENS/PATCH, AS IT IS PARTIALLY WITHIN CLAYSTONE.

Wood/Lignite Fossiles abundances:

N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 5 Date: 30/12/13

OBSERVER: ANJA/ANA

Sample ID	Mudstone					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description	
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture				
170	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	NO SANDGRAINS, LITTLE PIECE OF WHITE ROCK (NOT CALCITE), VERY CLAY-RICH DARK LAMINAE, FEW CARBONATE LAYERS	N 85% clay
172	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	VERY FINE SAND, FEW CARBONATE PIECES, VERY SMALL, LOOSE SAND,	N 80% clay
174	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, BUT NO CARBONATE VEINS NO SLICKENLINES, FEW THIN SANDY LAMINAE WITHIN CLAYSTONE	N 75-80% clay
176	85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	BLACK PIECES, LOOSE SAND, SAND PIECES, DARK BANDS BAD SPELL	N 70%
179	85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	BAD SPELL, FEW DARK LAMINAE IN CLAYSTONE, SAND SANDSTONE	N 50%
181	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	VERY "WEAK" / CRUMBLY SAMPLE SEEMS TO BE MORE SILTY THAN ABOVE. SLIGHTLY STICKY IN PARTS.	N 35% clay
183	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, BUT SLIGHTLY MORE CLAY RICH "WEAK" SAMPLE	N 40-45% clay
185	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, MORE CLAYEY "WEAK" SAMPLE	N 50% clay
187	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE; FEW MODERATELY HARD AND SL FISSILE BLACKISH CLUT	N 55-60% clay
189	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	MUCH MORE FIRMER THAN ABOVE SILTY CLAYSTONE: MD GR, FIRM; → FISSILE SANDSTONE AS ABOVE. FEW BLACK LAMINAE	N 40% clay
191	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, FEW HARD DARK CLAYSTONE, LESS CLAYEY / CLAYSTONE FEW SILKENLINED PIECES.	N 20% clay
196	80-85	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	15-20	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	SILTY CLAYSTONE: MEDIUM GREY, FIRM. FEW CALCITE CLAYSTONE: LESS THAN ABOVE. FEW DARK MATTER FINE SANDSTONE: AS ABOVE, BLACK LAMINAE *	N 40% clay
198	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	MORE CLAY RICH THAN ABOVE; COMMON BLACK LAMINAE / FISSILE MATERIAL; SILKENLINED COMMON CALCITE VEIN MAT. FINE SANDSTONE.	N 20%
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D		

SILKENLINED CALCITE VEIN MATERIAL

MEDIUM SANDSTONE: MEDIUM GREY, FIRM - HARD, FINE-MEDIUM, POORLY SORTED, FRIABLE, FAIRLY CONSOLIDATED, MEDIUM GRAINS OF MATIC MINERALS (PX, AMP, BIOT) AND QUARTZ FLOATING IN MEDIUM GREY FINE-SILTY MATRIX, FEW CHLORITE? & FELDSPAR??

Wood/Lignite Fossiles abundances:  
N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

NO MEDIUM SANDSTONE AS 191 SMW

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 6 Date: 30/12/13 OBSERVER: ANSA

Sample ID	Mudstone					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description	
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture				
200	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	100% claystone, NO SILTY CLAYSTONE, NO SANDSTONE, FEW TINY CARBONATE PIECES, FEW SLICKENLINES	100% clay
202	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE, FEW BIG FLAT PIECES WITH SLICKENLINES, OTHERWISE PURE WEAK STICKY CLAY	100% CLAY
204	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	DARK LAMINAE IN CLAY, FEW CARBON. PIECES, SLICKENLINES	100% CLAY
208	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	LESS THAN 5% SILTY CLAYST, FINE SAND MORE CRUMBLY, FEW CARBONATE GRAINS VERY SMALL, FEW SLICKENLINE HARD CHIPS	>95% CLAY
210	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	FEW SILTY CLAYSTONE, FEW CARBONATE VEINS, FEW DARK LAMINAE, FEW SLICKENLINES	>95% CLAY
213	95-100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0-5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	5% SILTY CLAYST, FEW LOOSE GRAINS, FEW SLICKENLINES, LESS THAN 5% FINE SAND / FEW CARB. VEINS IN CLAYST.	90-95% CLAY
215	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	FEW CARB PIECES, NO LOOSE GRAINS ALL STICKY CLAY, HARD PIECES WITH SLICKENLINES	100% CLAY
217	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	FEW BIGGER CARBONATE PIECES, STICKY CLAYST, NO SLICKENLINES, NO HARD PIECES TR VERY FINE SANDSTONE, LT GR	100% CLAY
219	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	NO CARBONATE, FEW SLICKENLINES ON HARD PIECES, FEW SILTY GRAINS, NO SAND	95% clay
221	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CARBONATE PIECE, SLICKENLINED CLAYSTONE + SOFT CLAYSTONE, FEW SILTY CLAYST	100% clay
224	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE WITH CALCITE VEIN, SLICKENLINES TR LT GR ST	100% clay
226	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	BIOTURBATION IN A CLAYST, SLICKENLINES, SEEN BEFORE STRANGE SLICKENLINE TRAWERS, BECAUSE OF DRY CLAY?	100% clay
229	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	NO CALCITE VEINS, AS ABOVE	100% clay
231	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE, AS ABOVE; RARELY SILTY.	

Wood/Lignite Fossiles abundances:

N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 7 Date: 29/12/13 OBSERVER: ANA/ANJA

Sample ID	Mudstone					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description	CLAY %
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture				
233	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: MEDIUM GREY, SOFT-FIRM, CRUMBLY, STICKY IN PLACES, RARELY SILTY (FIRMER PIECES), SL HYGROSCOPIC	100
235	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: SLIGHTLY MORE STICKY THAN ABOVE (DUE TO WETNESS OF THE SAMPLE?); TR BLACK ORGANIC-RICH LAMINAE	100
237	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	AS ABOVE; TR LIGHT GREY-OFF WHITE SPECKS	100
240	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: FIRM-SOFT, CRUMBLY, LESS STICKY THAN ABOVE, SILTY IN PLACES; FEW HARD PIECES; FEW LIGHT GREY LAMINAE, TR LIGHT GREEN SANDSTONE	100
242	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: AS ABOVE; FEW HARD DARK GREY PIECES	100
244	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: AS ABOVE; FEW SLIKENLINED HARD PIECES; FEW CARBONATE VEIN MATERIAL	100
247	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: AS ABOVE, LESS STICKY. FEW SLIKENLINES IN HARD CLAYSTONE (POUSHED SURFACE)	100
249	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: AS ABOVE; FEW SLIKENLINED HARD PIECES. TR LIGHT GREY SST, ALSO W/ SLIKENLINES	100
251	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE: SLIGHTLY MORE SILTY THAN ABOVE; FEW SLIKENLINES. SANDSTONE: SEE DESCRIPTION BELOW.	90 → CARB VEN
254	98	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	<5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE, SLIGHTLY LESS SILTY THAN ABOVE; FEW SLIKENLINES CARB PIECES	95-100
256	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CARB PIECES, SLIKENLINES, DARK LAMINAE IN CLAYSTONE	95
259	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	LOOSE SANDG; RAWS + FEW SANDSTONE FRAGS OF SILTSTONE, CARB PIECES, DARK LAMINAE IN CLAYSTONE	90
261	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	PURE CLAYSTONE; TRACE OF SILTSTONE FEW STRIATIONS ON CLAY, NO SLIKENLINES	100
263	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/C/A/D	N/R/F/C/A/D	CLAYSTONE; TRACE OF SILT, CARB PIECES, FEW SLIKENLINES	95-100

251 SMW: SANDSTONE - LIGHT GREY, FINE GRAINED, FIRM-HARD IN PLACES, FRIABLE, FAIRLY SORTED, FEW DARK BANDS (POSSIBLY WEB-LIKE STRUCTURE).

Wood/Lignite Fossiles abundances:  
N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. 8

Date: 31/12/13

OBSERVER:

ANJA/ANA

Sample ID	Mudstone					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description	
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture				
265	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	CLAYSTONE, TRACE OF SILT, NO SAND FEW CARB VEINS, FEW SILICEN LINES	100
267	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	SAND GRAINS FEW, WITH DARK BIOTITE CLAYSTONE, LOOSE FINE SAND, FEW DARK SMALL CLASTS -> ORGANIC?	95
269	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	FEW CARB PIECES, TRACE OF SILT, FEW DARK LAMINAE, FEW SILICEN LINES	100
271	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	LOOSE VERY FINE SAND, CLAYSTONE, TRACE OF SILT, CARB PIECES,	95
273	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	ALL CLAYSTONE	100
277	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE, RARELY SILTY.	100
279	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	TR	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE, GRADING TO SILTSTONE IN PLACE; TR SST AND DARK LAMS.	95
281	95/100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	0.5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE, CLAYSTONE LETS SILTY; SLIGHTLY MORE SST PIECES	95
283	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	CLAYSTONE: MORE SILTY THAN ABOVE, GRADING TO SILTSTONE IN PLACE; VERY FINE - FINE LTGY SST - FIRMER	80
285	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	CLAYSTONE, AS ABOVE BUT SLIGHTLY LESS SILTY, LESS SST, FEW DK HARD CLAYSTONE - SILTY LIT PIECES	90
289	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	CLAYSTONE, RARELY SILTY; STICKY TO CRUMBLY; TR SILTSTONE	100
291	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE, FEW HARD SILICEN LINES PIECES OF CLAYSTONE	100
293	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE, LESS STICKY, FIRMER -> BUT STILL SLIGHTLY	100
296	100	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	-	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE, FEW HARD DARK SILICEN LINES PIECES	100

⇒ CARINGS - SAMPLE 309 SMW : UP TO 30% SANDSTONE; MEDIUM GREY, FINE-MEDIUM, HARD, BLOCKY SHAPED, COMMON DARK LAMINATIONS; ABUNDANT MATICS (R, AMP, BIOT).  
 <S025 MBRT  
 70% CLAYSTONE: MEDIUM - DARK GREY, HARD, SPUNKY SHAPED, ABUNDANT POLISHED SURFACES WITH STRIATIONS; SILTY IN PLACE (LESS SHEARED SURFACES, SLIGHTLY MORE BLOCKY).

Wood/Lignite Fossiles abundances:

N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant



IODP Exp. 348 Cuttings Description Sheet (macroscopic)

NO. / Date: / /13 OBSERVER:

Sample ID	Mudstone					Sandstone & Siltstone					Wood/lignite	Fossils	Visual description
	(%)	Consolidation	Structures	Shape	Texture	(%)	Consolidation	Structures	Shape	Texture			
298	95	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	5	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	CLAYSTONE: MEDIUM GREY, FIRM CRUMBLY - 95 SLIGHTLY STICKY I.P., OCCASIONALLY SILTY; SANDSTONE: LT GR, FINE; FEW CARB LAMS; FEW SILTCLAY
300	90	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	10	Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	AS ABOVE WITH SLIGHTLY MORE SANDST THAN ABOVE; FEW HARD CLAY ST. PIECES; FEW WHITE CARB LAMS / VEIN MATERIAL. 90
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	
		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile		Soft / Semi Hard / Loose	Yes / No	Angular Subangular Round / Platy	Crumbly Sticky / Fissile	N/R/F/ C/A/D	N/R/F/ C/A/D	

Wood/Lignite Fossiles abundances:

N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant