Teagle, D.A.H., Wilson, D.S., Acton, G.D., and Vanko, D.A. (Eds.)
Proceedings of the Ocean Drilling Program, Scientific Results Volume 206

11. Data Report: Reoriented Structures in the East Pacific Rise Basaltic Crust from ODP Hole 1256D, Leg 206: Integration of Core Measurements and Electrical-Acoustic Images[1]

P. Tartarotti,[2] L. Crispini,[3] F. Einaudi,[4] and E. Campari[2]

ABSTRACT

Brittle structures (open fractures and veins) from basaltic oceanic crust drilled at Ocean Drilling Program (ODP) Site 1256 (Guatemala Basin, Pacific Ocean) during Leg 206 were reoriented to the geographic coordinates by (1) correlating structures observed on the core with unoriented images of the exterior of the core and (2) correlating core structures and unoriented images with oriented borehole images. The images of the exterior of the core were obtained by scanning whole-core pieces with the Deutsche Montan Technologie Digital Color Core-Scan system. In the unrolled core images, nonhorizontal planar structures (e.g., veins, faults, or fractures) produce sinusoidal-shaped curves. These can be matched to similar-shaped features imaged along the borehole wall. The borehole images were obtained by the Formation MicroScanner (FMS)-sonic (Dipole Sonic Imager) tool string and the Ultrasonic Borehole Imager (UBI). The FMS provides high-resolution electrical resistivity–based images of borehole walls. FMS images are oriented to magnetic north using the General Purpose Inclinometer Tool. This allows the dip and azimuth of geological features intersecting the hole to be measured from the processed FMS image. The UBI features a high-resolution transducer that provides acoustic images of the

[1]Tartarotti, P., Crispini, L., Einaudi, F., and Campari, E., 2006. Data report: reoriented structures in the East Pacific Rise basaltic crust from ODP Hole 1256D, Leg 206: integration of core measurements and electrical-acoustic images. *In* Teagle, D.A.H., Wilson, D.S., Acton, G.D., and Vanko, D.A. (Eds.), *Proc. ODP, Sci. Results,* 206: College Station, TX (Ocean Drilling Program), 1–26. doi:10.2973/odp.proc.sr.206.004.2006
[2]Dipartimento di Scienze della Terra, Università di Milano, via Mangiagalli 34, 20133 Milano, Italy.
Correspondence author: paola.tartarotti@unimi.it
[3]DIPTERIS, Dipartimento per lo Studio del Territorio e delle sue Risorse Universita' di Genova, Corso Europa 26, 16132 Genova, Italy.
[4]Laboratoire de Geophysique et Hydrodynamique en Forage, Université de Montpellier II, ODP/Naturalia et Biologia (NEB) ISTEEM, cc56, 34095 Montpellier, France.

Initial receipt: 30 April 2005
Acceptance: 22 December 2005
Web publication: 20 November 2006
Ms 206SR-004

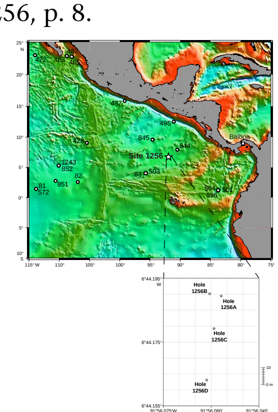
borehole wall. The UBI was used in hard rocks for the first time in the history of the ODP during Leg 206.

INTRODUCTION

Structural and microstructural studies have only been systematically carried out on Ocean Drilling Program (ODP) drill cores from the oceanic crust since Leg 118 (Robinson, Von Herzen, et al., 1989), mostly because it is difficult to core and recover continuous records of basement stratigraphy and structural features. In addition, cores recovered by rotary drilling are not oriented with respect to geographic coordinates. Consequently, the attitude of planar structures such as joints, veins, lithologic boundaries, foliation, and other structural features is measured with respect to the core reference frame but not to magnetic north. Cores can be reoriented to north by means of paleomagnetism, commonly performed during ODP cruises (i.e., by reorienting cores and structures to the stable magnetic remanence direction) (e.g., MacLeod et al., 1995; Cannat and Pariso, 1991; Allerton et al., 1995). However, this method does not perform well in areas close to the equator. Alternatively, in situ orientation of structures can be determined by comparing cores with borehole wall images obtained using downhole logging tools (Haggas et al., 2001). Logging data provide a continuous record of the physical and chemical properties of the rock surrounding the borehole walls (Pezard, 1990; Brewer et al., 1998). Acoustic and electrical borehole wall images are oriented to the geographic reference frame because the logging tools determine reference direction.

In this report, we present the results obtained by reorienting structures from basaltic oceanic crust drilled at Site 1256 (Guatemala Basin, Pacific Ocean) (Wilson, Teagle, Acton, et al., 2003). Core orientation is particularly important for Leg 206 because Site 1256 has a low paleolatitude (i.e., the paleomagnetic inclination will be nearly horizontal and the magnetic polarity will be indeterminate from azimuthally unoriented cores). Reorienting operations were done at first by correlating the natural fractures and veins measured in the massive basalt flow in Hole 1256D with unoriented unrolled digital images obtained by scanning cores with the Deutsche Montan Technologie (DMT) Digital Color CoreScan system (DMT, 1996, 2000). Afterward, core structures were compared with oriented images supplemented by the Formation MicroScanner (FMS)-sonic (Dipole Sonic Imager) tool string and by the Ultrasonic Borehole Imager (UBI), which was used in hard rocks for the first time in the history of ODP (Wilson, Teagle, Acton, et al., 2003). Such an integration procedure is addressed to identify as many potential matches as possible on the cores, on the whole-round core image, and in the oriented image logs.

F1. Regional bathymetry for Site 1256, p. 8.



GEOLOGICAL SETTING AND BASEMENT STRATIGRAPHY

During Leg 206, drilling was conducted at Site 1256 (6.736°N, 91.934°W; Guatemala Basin, Cocos plate) on ~15-Ma oceanic lithosphere formed by superfast spreading (>200 mm/yr) at the East Pacific Rise (Wilson, 1996). Four holes were drilled at Site 1256 (Fig. F1). Holes 1256A, 1256B, and 1256C provided a complete section for sedimentary stratigraphy, whereas Holes 1256C and 1256D were deepened into basement. Hole 1256C was cored 88.5 m into basement, and Hole 1256D, the case reentry hole, was cored 502 m into basement.

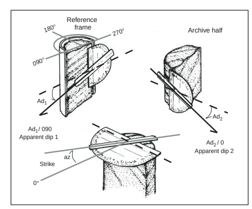
Structural measurements and analyses were carried out during Leg 206 on the basement sections of the two holes. In this report, only structures from Hole 1256D, namely those from the ponded lava Unit 1256D-1, are described and utilized for the reorientation procedure because logging operations were not successful in the Hole 1256C basement (Wilson, Teagle, Acton, et al., 2003). Unit 1256D-1 consists of a single cooling unit of cryptocrystalline to fine-grained basalt, which was interpreted as a ponded lava flow (Wilson, Teagle, Acton, et al., 2003). The first core in Hole 1256D (Core 206-1256D-2R) consists of aphyric microcrystalline basalt rather than the deformed cryptocrystalline flow top recovered in Hole 1256C. Nevertheless, the minimum thickness of 74.2 m of the flow in Hole 1256D can be determined from the cored interval (276.1–350.3 meters below seafloor [mbsf]), of which 68.4 m was recovered, and is more than twice that in Hole 1256C. Units 1256C-18 in Hole 1256C and 1256D-1 in Hole 1256D have been correlated despite the difference in their thicknesses based on the similarity in mineralogy, general appearance, similarity in the depth of the top of each unit, and geochemical similarities between the two units (Wilson, Teagle, Acton, et al., 2003).

DATA ACQUISITION

Structure Orientation on Cores

Joints, veins, shear veins, and faults were described and measured on cores during Leg 206. Structures related to contractional cooling of lava were discarded (Shipboard Scientific Party, 2003). Structures were measured on the archive half relative to the core reference frame used by ODP for which the plane normal to the axis of the borehole is referred to as the horizontal plane. On this plane, a 360° net is used with pseudosouth (180°) pointing into the archive half and pseudonorth (0°) pointing out of the archive half and perpendicular to the cut surface of the core (Fig. F2). The cut surface of the core is a vertical plane striking 90°–270°. In order to obtain a true dip value of structures, two apparent dip angles for each planar structure were measured on the cut face of the archive half and possibly in a section perpendicular to the core face, respectively. The two apparent dips and dip directions (or one apparent direction combined with the strike) are used to calculate the true orientation using the "LinesToPlane" Macintosh program by S.D. Hurst. Calculated orientations of structures for Unit 1256D-1 are reported in Table T1.

F2. Sketch of the archive half of the core, p. 9.

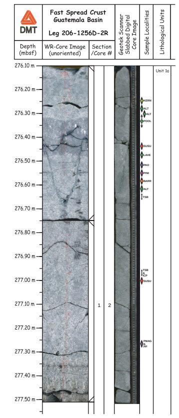


T1. Database of natural structures measured at Unit 1256D-1, p. 14.

Whole-Core Images

During Leg 206, unrolled digital images of the core (Fig. F3) were supplemented by using a DMT Digital Color CoreScan system (Shipboard Scientific Party, 2003). On unrolled core images, planar features can be identified and measured for comparison with core structural analysis and for integration with structures measured on geographically oriented FMS and UBI images.

F3. An example of a WR digital image, p. 10.

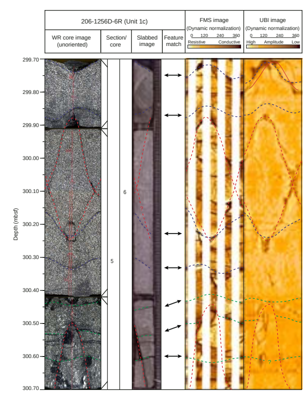


High-Resolution Images of the Borehole Surface

During Leg 206, downhole wireline tools were deployed to obtain spatially continuous records of the in situ physical, chemical, and structural properties of the penetrated rock formation. Five different tool strings were utilized (Shipboard Scientific Party, 2003), including the FMS-sonic tool string and the UBI tool string. The FMS provides high-resolution electrical resistivity–based images of the formation which can be displayed in either gray scale or color (e.g., Pezard et al., 1990). The tool string also contains a triaxial accelerometer and three fluxgate magnetometers, which are part of the General Purpose Inclinometry Tool (GPIT) that is used to orient and position the images. Comparison of the data from the four GPIT runs carried out during Leg 206 (see "Downhole Measurements" section in Shipboard Scientific Party, 2003) shows good reproducibility in magnetic field *H*- (horizontal) and *Z*- (vertical) components. The deviation values for the last three runs coincide well, whereas these values from the first run seem to be reduced by ~1°.

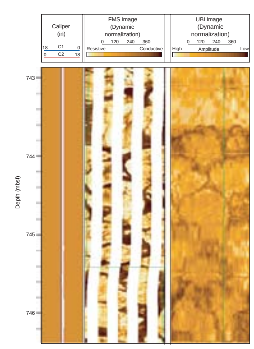
Measurements of hole size, cable speed, and natural gamma ray intensity also are used in the processing. The image is displayed as an unwrapped borehole cylinder (its circumference is derived from the bit size) (Fig. **F4**). A dipping plane in the borehole will be displayed as a sinusoid on the image; the amplitude of this sinusoid is proportional to the dip of the plane. The images are oriented with respect to north; therefore, the dip direction of dipping features can also be determined.

F4. FMS/UBI images from the massive ponded basalt, p. 11.



The UBI provides an acoustic image of the borehole wall by scanning it with a narrow pulsed acoustic beam transmitted by a rotating transducer while the tool is pulled up the hole. Excellent quality images were obtained from Hole 1256D (see Fig. **F4**). Massive basalt, breccia, and pillows can all be identified in the images, especially in the amplitude image (Fig. **F5**). Fractures can also be easily identified. High-angle fractures are much easier to identify in the UBI images than in the FMS images because UBI images provide complete coverage of the borehole wall. The FMS and UBI images are best interpreted side-by-side, as the 360° coverage of the UBI images complement the higher resolution of the FMS resistivity images. Moreover, the UBI and FMS respond to contrasting physical properties, enabling differentiation of open and filled fractures.

F5. Detailed FMS and UBI image, p. 12.



REORIENTING STRUCTURES BY CORE-LOGGING INTEGRATION

Although methods employed for core and logging measurements are different, they can be combined and integrated to obtain useful information from the subsurface oceanic crust. For this study, FMS and UBI high-resolution images are fundamental because of their orientation with respect to the geographic coordinates. These images allow planar structures to be reoriented to north, provided that the structural features recorded and measured on core match the conductive features detected on logging images.

In order to match the core and logging data accurately, the quality of each data set must be checked. First, the accurate location of core pieces downhole must be obtained. Core depths are based on drill pipe measurements to the top of each core interval. According to ODP convention, all recovered core pieces are moved to the top of each core barrel during curation (Alt et al., 1993). Consequently, many of the core pieces may not be recorded at their drilled depth. Many cores in Hole 1256D have recoveries >100% because the core barrel contained material cored but not retrieved during previous coring runs. For the logging data, the wireline depth to seafloor is usually determined from a step increase in gamma ray values at the sediment/water interface or at the sediment/basement interface, where a clear downward decrease occurs in gamma ray activity along with a sharp increase in electrical resistivity (Shipboard Scientific Party, 2003).

Correlation between the whole-round core images and electrical or acoustic representations of the borehole wall allows determination of the true core depth (as opposed to ODP curated depth), especially in holes where recovery is by far <100%. During Leg 206, the average recovery was 61.3% in Hole 1256C, and 47.3% in Hole 1256D (Wilson, Teagle, Acton, et al., 2003). Determination of the true core depth is problematic in intervals with <100% recovery (e.g., Core 206-1256D-16R, with 22% recovery) and >100% recovery (e.g., Core 206-1256D-4R, with 110.2% recovery). The overall recovery in Unit 1256D-1, where our data come from, was 93%. Conductive features such as lithologic boundaries, fractures, veins, and breccias can be depth-matched to allow repositioning of core pieces. Individual core pieces (and associated structural data) that can be confidently depth-matched and then ultimately be reoriented or rotated so they are oriented with respect to true geographic north.

RESULTS

Geographic orientation and downhole location of core pieces and structural features were achieved by cross-correlation of the FMS/UBI and DMT images with core data. Reorientation of core pieces from Unit 1256D-1 was performed using the methods described in Haggas et al. (2001). Results of relocation/reorientation processing performed on Unit 1256D-1 cores are reported in Table T1.

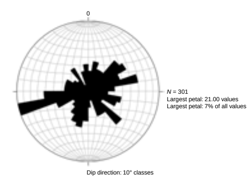
The first step in location/reorientation processing was to relocate the position of core pieces by comparing curated and logging depth values. Corrections to the curated depths were applied as follows:

1. If core recovery is >100%, then the curated depth of core bottom is shifted downward in order to include all exceeding core pieces. A new corrected depth value is obtained for the top of each core (column "1" in Table T1).
2. If core recovery is <100%, then depth error is E(m) = Lc – Lr, with Lc = length of the cored interval and Lr = length of the recovered interval (see column "4" in Table T1).
3. The depths of the measured structures are reassigned according to the corrected depth of the core top (columns "2" and "3" in Table T1).
4. After shifting and relocating core pieces and structures, correlation of the FMS/UBI and DMT images with core data was attempted. Core data to be reoriented first were selected (numbers in bold in Table T1) if depth and dip angle of core structures were comparable with those of conductive features on logging images. In addition, the downward distribution and pattern of structures in a core piece were determined and compared with analog dis-

tribution of conductive features on logging images. Secondly, all structures of the same core piece were relocated accordingly.

5. The dip directions of core structures as obtained by onboard measurements (Shipboard Scientific Party, 2003; columns 5, 6, 7 in Table **T1**) were then rotated by an angle Δ° (+Δ°, if rotation is clockwise; –Δ° if rotation is counterclockwise), with Δ° = [dip direction of FMS structure – dip direction of core structure]. For each selected core structure, the angle Δ° was calculated (column 11 in Table **T1**). If more than one core structure is suitable for reorientation, either the average value of Δ° was applied (in case the structures have comparable dip angles) or the structure with higher dip angle was chosen to be rotated by calculated Δ° (column 12 in Table **T1**).
6. Depth of reoriented core structures are reported in column 13 in Table **T1.** Dip angle of reoriented structure should be corrected after taking into account the hole deviation, which was 1.8° at 368.9 mbsf (119 m into basement, i.e., at a depth deeper than the bottom of Unit 1256D-1).
7. Dip directions of reoriented core structures are shown in the rose diagram of Figure **F6.** The most frequent value for dip direction is N260°.

F6. Distribution of dip direction, p. 13.



ACKNOWLEDGMENTS

The authors would like to thank the Leg 206 Science Party and the *JOIDES Resolution* staff and crew for the ultimate success of the cruise. An anonymous reviewer and staff scientist G. Acton are thanked for the critical revision of the manuscript. This research used samples and/or data provided by the Ocean Drilling Program (ODP). ODP is sponsored by the U.S. National Science Foundation (NSF) and participating countries under management of Joint Oceanographic Institutions (JOI), Inc. This work was funded by CONISMA and PRIN 2004 grants to P. Tartarotti.

REFERENCES

Allerton, S.A., McNeill, A.W., Stokking, L.B., Pariso, J.E., Tartarotti, P., Marton, F.C., and Pertsev, N.N., 1995. Structures and magnetic fabrics from the lower sheeted dike complex of Hole 504B reoriented using stable magnetic remanence. *In* Erzinger, J., Becker, K., Dick, H.J.B., and Stokking, L.B. (Eds.), *Proc. ODP, Sci. Results,* 137/140: College Station, TX (Ocean Drilling Program), 245–252.

Alt, J.C., Kinoshita, H., Stokking, L.B., et al., 1993. *Proc. ODP, Init. Repts.,* 148: College Station, TX (Ocean Drilling Program).

Brewer, T.S., Harvey, P.K., Lovell, M.A., Haggas, S., Williamson, G., and Pezard, P., 1998. Ocean floor volcanism: constraints from the integration of core and downhole logging measurements. *In* Harvey, P.K., and Lovell, M.A. (Eds.), *Core-Log Integration.* Geol. Soc. Spec. Publ., 136:341–362.

Cannat, M., and Pariso, J., 1991. Partial reorientation of the deformational structures at Site 735 using paleodeclination measurements. *In* Von Herzen, R.P., Robinson, P.T., et al., *Proc. ODP, Sci. Results,* 118: College Station, TX (Ocean Drilling Program), 409–414.

DMT-GeoTec/Geo-Engineering, 1996. *DMT Color CoreScan Users Manual. Acquisition and Evaluation Software.*

DMT GmbH, 2000. *DMT CoreScan Color Acquisition Software Digicore and Hardware Information:* Essen, Germany (Deutsche Montan Technologie GmbH).

Haggas, S., Brewer, T.S., Harvey, P.K., and Iturrino, G., 2001. Relocating and orienting cores by the integration of electrical and optical images: a case study from Ocean Drilling Program Hole 735B. *J. Geol. Soc. (London, U. K.),* 158:615–623.

MacLeod, C.J., Célérier, B., and Harvey, P.K., 1995. Further techniques for core reorientation by core-log integration: application to structural studies of lower oceanic crust in Hess Deep, eastern Pacific. *Sci. Drill.,* 5:77–86.

Pezard, P.A., 1990. Electrical properties of mid-ocean ridge basalt and implications for the structure of the upper oceanic crust in Hole 504B. *J. Geophys. Res.,* 95:9237–9264.

Pezard, P.A., Lovell, M.A., and ODP Leg 126 Shipboard Scientific Party, 1990. Downhole images: electrical scanning reveals the nature of subsurface oceanic crust. *Eos, Trans. Am. Geophys. Union,* 71:709.

Robinson, P.T., Von Herzen, R., et al., 1989. *Proc. ODP, Init. Repts.,* 118: College Station, TX (Ocean Drilling Program).

Shipboard Scientific Party, 2003. Site 1256. *In* Wilson, D.S., Teagle, D.A.H., Acton, G.D., *Proc. ODP, Init. Repts.,* 206: College Station, TX (Ocean Drilling Program), 1–396. **doi:10.2973/odp.proc.ir.206.103.2003**

Smith, W.H.F., and Sandwell, D.T., 1997. Global seafloor topography from satellite altimetry and ship depth soundings. *Science,* 277:1956–1962. **doi:10.1126/science.277.5334.1956**

Wilson, D.S., 1996. Fastest known spreading on the Miocene Cocos-Pacific plate boundary. *Geophys. Res. Lett.,* 23(21):3003-3006. **doi:10.1029/96GL02893**

Wilson, D.S., Teagle, D.A.H., Acton, G.D., et al., 2003. *Proc. ODP, Init. Repts.,* 206: College Station, TX (Ocean Drilling Program). **doi:10.2973/odp.proc.ir.206.2003**

Figure F1. Regional bathymetry for Site 1256 and the Cocos plate (from Smith and Sandwell, 1997) and location map showing positions of the four holes drilled at Site 1256 during Leg 206.

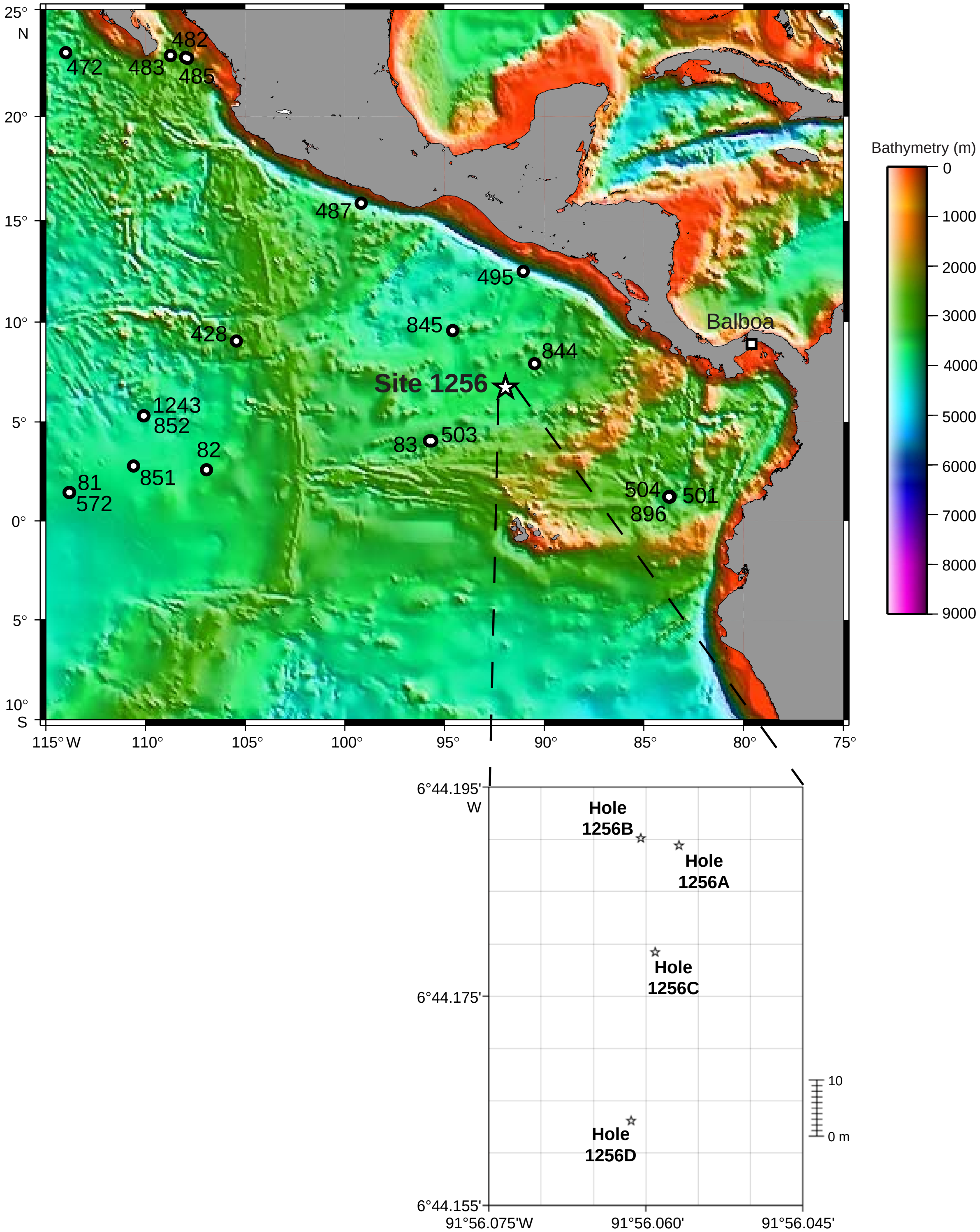


Figure F2. Sketch of the archive half of the core showing the conventions used by ODP policy for measuring orientation of structural features. Examples of orientation measurements with the protractor-based device are shown.

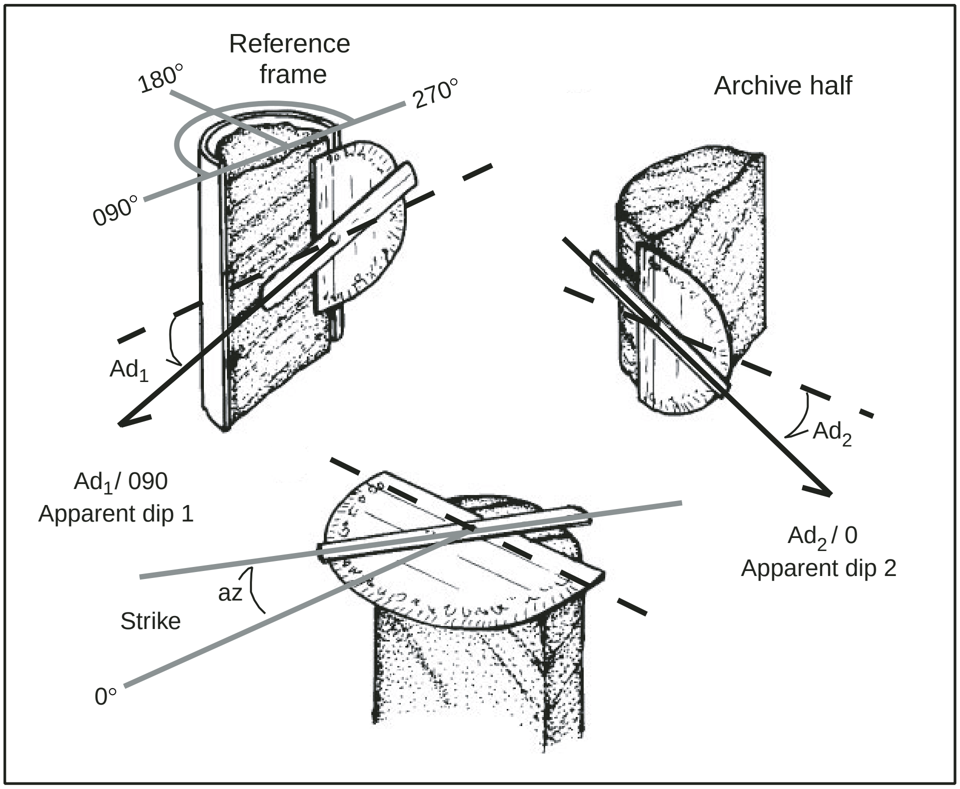


Figure F3. An example of a whole-round (WR) digital image obtained with the Deutsche Montan Technologie (DMT) tool, shown beside a slabbed image for comparison.

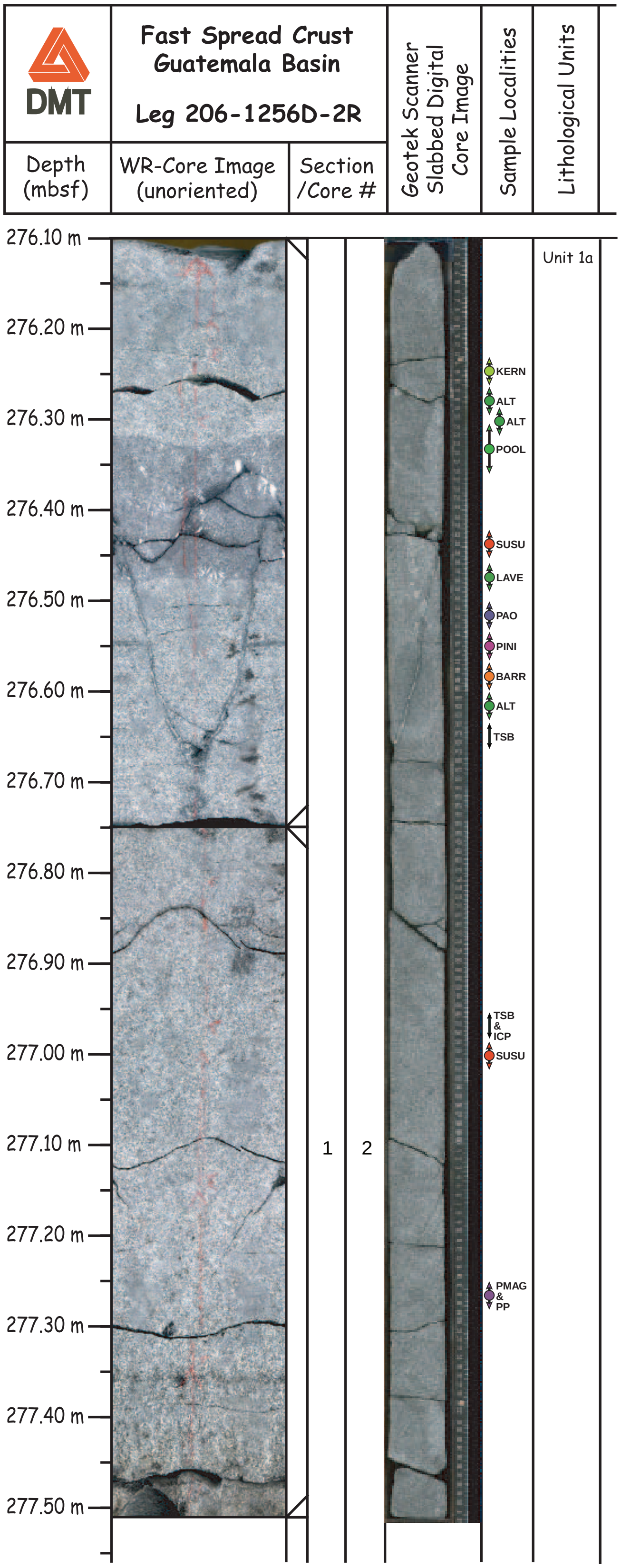


Figure F4. Formation MicroScanner (FMS)/Ultrasonic Borehole Imager (UBI) images from the massive ponded basalt (Subunit 1256D-1c) recovered in Section 206-1256D-6R-5 (at ~300 mbsf). Unrolled core image is also reported for comparison. WR = whole-round.

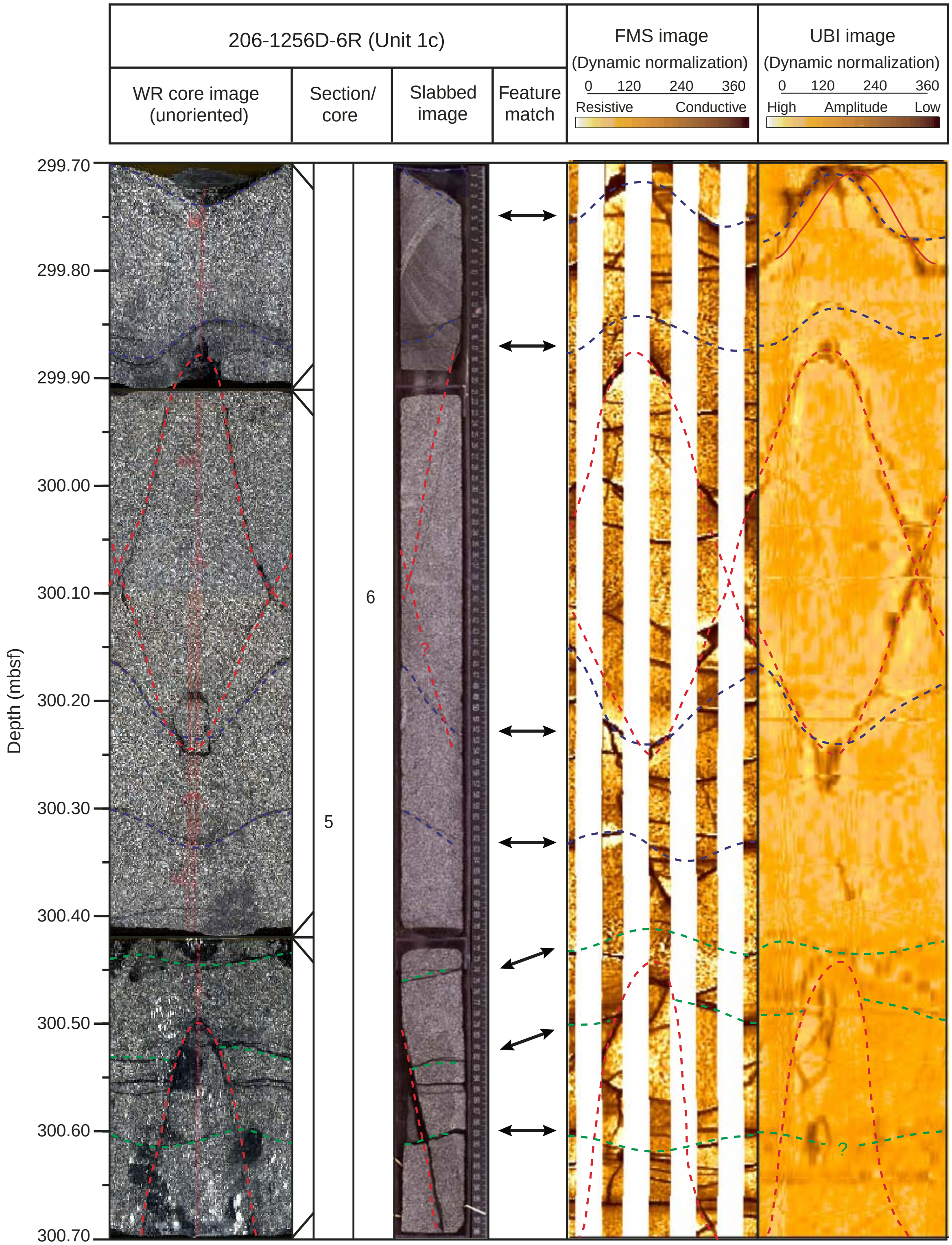


Figure F5. Detailed Formation MicroScanner (FMS) and Ultrasonic Borehole Imager (UBI) image displaying typical pillow (743–746 mbsf).

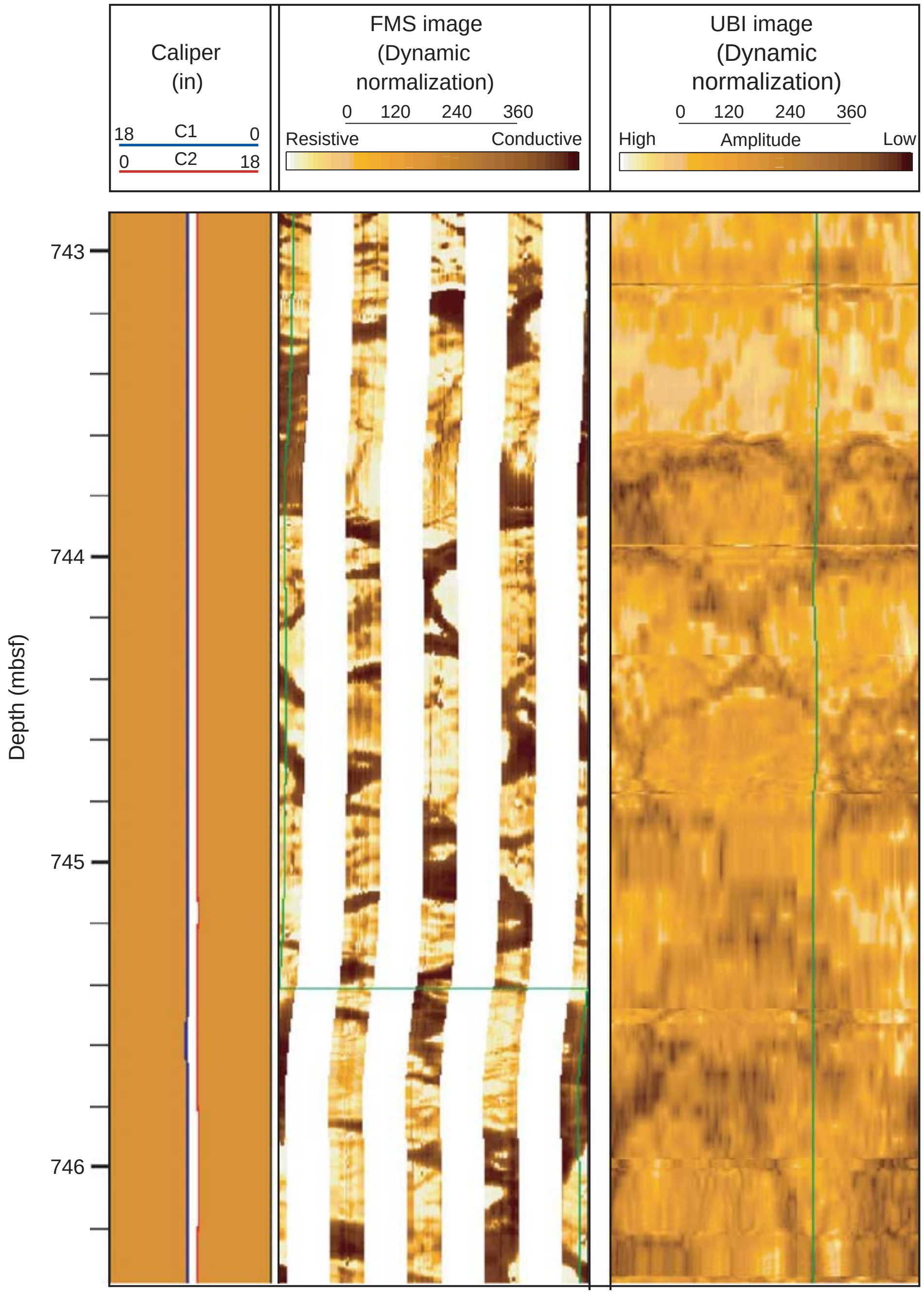


Figure F6. Rose diagram illustrating the distribution of dip direction of all reoriented structures at Hole 1256D.

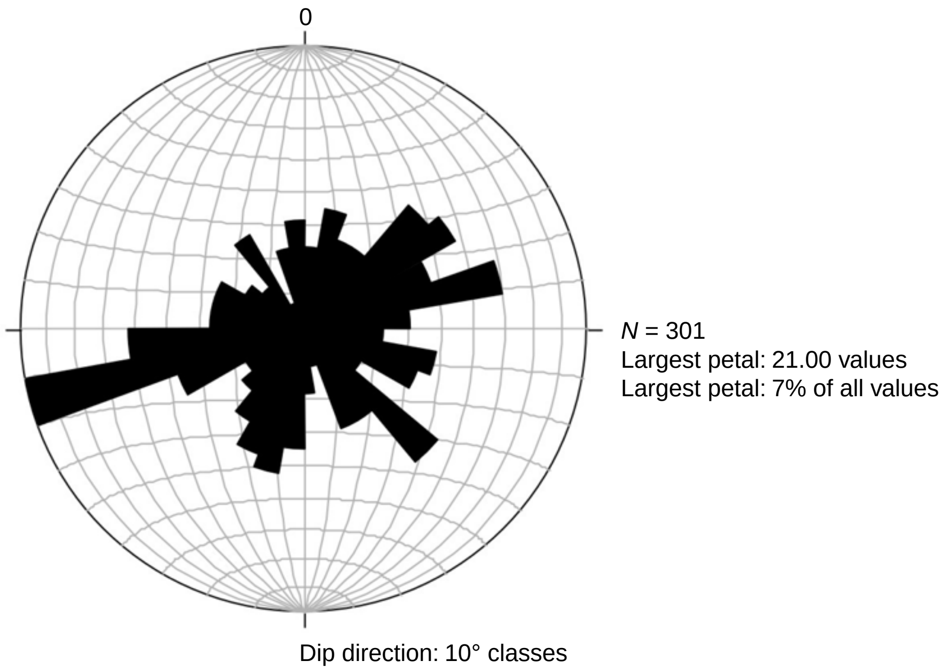


Table T1. Database including all natural structures measured at Unit 1256D-1 with respect to the ODP reference frame and reorientation results obtained with respect to the geographic coordinates. (See table notes. Continued on next 12 pages.)

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth				Real and calculated			FMS/UBI data			Rotation		Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
206-1256D-														
		276.10			0.58									
2R-1 (Piece 1A, 1.0–2.0)	V1		276.11	276.12		185	275	7	275.72	231	24		–196	276.11
2R-1 (Piece 1A, 3.5–5.0)	V2		276.14	276.15		288	18	36	275.94	129	35		–196	276.14
2R-1 (Piece 1A, 9.5–10.0)	V3		276.20	276.20		0	90	3					–196	276.20
2R-1 (Piece 1A, 13.0–14.0)	V4		276.23	276.24		0	90	10					–196	276.23
2R-1 (Piece 1A, 15.5–20.0)	V5		276.26	276.30		166	256	31					–196	276.28
2R-1 (Piece 1A, 17.5–18.5)	V6		276.28	276.29		346	76	21					–196	276.28
2R-1 (Piece 1B, 16.3–17.8)	V27		276.26	276.28		345	75	35	276.77	119	15		–196	276.27
2R-1 (Piece 1B, 29.0–30.0)	V7		276.39	276.40		71	161	28					–196	276.40
2R-1 (Piece 1B, 31.0–32.0)	V8		276.41	276.42		94	184	66					–196	276.41
2R-1 (Piece 1C, 33.5–34.0)	V28		276.44	276.44		180	270	14					–196	276.44
2R-1 (Piece 1C, 32.5–33.0)	V9		276.43	276.43		287	17	17	277.00	169	19		–196	276.43
2R-1 (Piece 1C, 34.0–56.0)	V10		276.44	276.66		356	86	76					–196	276.55
2R-1 (Piece 1C, 40.0–41.0)	V11		276.50	276.51		160	250	12					–196	276.50
2R-1 (Piece 1C, 42.5–44.0)	V12		**276.53**	**276.54**		**135**	**225**	**14**				–143	–196	276.53
2R-1 (Piece 1C, 44.5–44.5)	V13		276.55	276.55		\	\	0					–196	276.54
2R-1 (Piece 1C, 53.0–53.5)	V14		276.63	276.64		309	39	13					–196	276.53
2R-1 (Piece 1C, 47.0–47.5)	V15		**276.57**	**276.58**		**242**	**332**	**20**	**277.26**	**82**	**26**	–250	–196	276.57
2R-1 (Piece 1C, 54.0–54.0)	V16		276.64	276.64		270	0	8					–196	276.64
2R-1 (Piece 1C, 57.5–58.2)	V17		276.68	276.68		149	239	6	277.41	167	16		–196	276.68
2R-1 (Piece 1D, 64.0–65.0)	V18		276.74	276.75		177	267	7					–196	276.74
2R-1 (Piece 1E, 75.0–76.0)	V20		276.85	276.86		40	130	13					–196	276.85
2R-1 (Piece 1E, 75.0–76.0)	V21		276.85	276.86		223	313	49	277.44	177	16		–196	276.85
2R-1 (Piece 1F, 73.5–79.0)	V19		276.84	276.89		225	315	46	277.50	142	14		–196	276.86
2R-1 (Piece 1F, 99.0–102.0)	V22		277.09	277.12		128	218	41	277.61	136	17		–196	277.11
2R-1 (Piece 1G, 105.0–111.0)	V23		277.15	277.21		20	110	60	277.70	149	21		–196	277.18
2R-1 (Piece 1G, 110.5–111.5)	V24		277.21	277.22		180	270	5	277.98	121	11		–196	277.21
2R-1 (Piece 1G, 119.5–120.5)	V25		277.30	277.31		49	139	19					–196	277.30
2R-1 (Piece 1G, 128.0–129.0)	V26		277.38	277.39		\	\	0					–196	277.38
		278.10			2.39									
3R-1 (Piece 2, 18.0–19.0)	V1		278.28	278.29		39		22						
3R-1 (Piece 3, 19.0–28.0)	V1		278.29	278.38		187		90						
3R-1 (Piece 4, 29.5–34.0)	V1		278.40	278.44		0		90						
3R-1 (Piece 4, 34.0–36.5)	V3		278.44	278.47		178		70						
3R-1 (Piece 5, 37.0–37.0)	V1		278.47	278.47		90		3						
3R-1 (Piece 5, 44.0–44.5)	V2		278.54	278.55		169		10	278.83	137	19			
3R-1 (Piece 5, 42.0–46.0)	V3		278.52	278.56		180		74						
3R-1 (Piece 6, 47.0–48.0)	V1		278.57	278.58		195		9						
3R-1 (Piece 7, 77.0–80.0)	V1		**278.87**	**278.90**		**158**	**68**	**50**	**279.08**	**350**	**53**	–78	–78	278.88
3R-1 (Piece 9, 85.0–86.5)	V1		278.95	278.97		0	90	15					131	278.96
3R-1 (Piece 9, 88.0–104.0)	V2		278.98	279.14		0		90						
3R-1 (Piece 9, 109.0–110.0)	V3		**279.29**	**279.20**		**217**	**307**	**40**	**279.34**	**78**	**39**	131	131	279.20
3R-1 (Piece 10, 112.0–112.0)	V1		**279.22**	**279.22**		**122**	**212**	**51**	**279.38**	**89**	**49**	–124	–124	279.22
3R-1 (Piece 10, 126.0–126.5)	V2		279.36	279.37		45	135	8					–124	279.36
3R-1 (Piece 10, 129.5–130.0)	V3		**279.40**	**279.40**		**171**	**261**	**21**	**279.50**	**118**	**27**	–143	–124	279.40
		279.41												
									279.81	100	25			
									280.09	111	21			
3R-2 (Piece 1, 1.0–1.5)	V1		**279.42**	**279.43**		**220**	**310**	**31**	**280.25**	**121**	**30**	–189	4	279.42
3R-2 (Piece 1, 13.5–14.0)	V2		279.55	279.55		90	0	15					4	279.55

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth				Real and calculated			FMS/UBI data			Rotation		Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
3R-2 (Piece 1, 19.0–20.0)	V3		279.60	279.61		45	135	14					4	279.60
3R-2 (Piece 1, 21.0–21.5)	V4		279.62	279.63		\	\	0					4	279.62
3R-2 (Piece 1, 26.0–27.0)	V5		279.67	279.68		329	59	15	280.34	143	30		4	279.67
3R-2 (Piece 1, 29.5–30.5)	V6		**279.71**	**279.72**		**336**	**66**	**22**	**280.52**	**71**	**24**	4	4	279.71
3R-2 (Piece 1, 32.5–33.0)	V7		279.74	279.74		328	58	34					4	279.74
3R-2 (Piece 2, 34.0–34.0)	V1		279.75	279.75		\	\	0					16	279.75
3R-2 (Piece 2, 46.0–59.0)	V2		**279.87**	**280.00**		**217**	**307**	**69**	**280.78**	**323**	**77**		16	279.93
3R-2 (Piece 2, 76.0–77.0)	V5		280.17	280.18		26	116	9					16	280.18
3R-2 (Piece 2, 88.0–93.0)	V6		280.29	280.34		331	61	44	280.88	142	17		16	280.31
3R-2 (Piece 2, 88.5–92.5)	V7		280.30	280.34		331	61	44					16	280.31
3R-2 (Piece 2, 90.0–91.5)	SV8		280.31	280.33		340	70	52					16	280.32
3R-2 (Piece 3, 97.5–99.0)	SV1		280.39	280.40		340		52						
		280.52												
3R-3 (Piece 1, 9.0–10.0)	V1		280.61	280.62		180	270	7					–121	280.61
3R-3 (Piece 1, 29.0–29.5)	V2		280.81	280.82		180	270	11	281.34	88	26		–121	280.81
3R-3 (Piece 1, 33.0–35.5)	V3		**280.85**	**280.88**		**150**	**240**	**19**	**281.44**	**74**	**38**		–121	280.86
3R-3 (Piece 1, 47.5–49.0)	V5		**281.00**	**281.01**		**180**	**270**	**22**	**281.86**	**149**	**21**		–121	281.00
3R-3 (Piece 1, 53.0–53.5)	V4		281.05	281.06		151	241	10					–121	281.05
3R-3 (Piece 2, 55.5–57.0)	V1		281.08	281.09		204		32						
3R-3 (Piece 2, 56.5–58.5)	V2		281.09	281.11		10		64						
3R-3 (Piece 3, 80.5–85.0)	V1		281.33	281.37		174	264	70				–229	–229	281.35
3R-3 (Piece 3, 73.0–75.0)	V2		281.25	281.27		0	90	45					–229	281.26
3R-3 (Piece 4, 86.0–91.0)	F1		281.38	281.43		142	232	59					–197	281.05
3R-3 (Piece 4, 95.5–95.5)	V2		281.48	281.48		90	180	59	282.11	222	22		–197	281.47
3R-3 (Piece 4, 87.0–98.0)	V3		281.39	281.50		136	226	65	282.55	158	9		–197	281.45
3R-3 (Piece 4, 97.0–99.0)	V5		**281.49**	**281.51**		**245**	**335**	**38**	**282.61**	**138**	**39**	–197	–197	281.50
3R-3 (Piece 4, 102.0–106.5)	SV4		281.54	281.59		175	265	53	282.88	342	15		–197	281.56
									283.26	70	20			
3R-3 (Piece 5, 111.0–112.0)	V5		**281.63**	**281.64**		**49**	**139**	**35**	**283.70**	**80**	**37**	–59	107	281.63
3R-3 (Piece 5, 109.0–121.0)	V1		**281.61**	**281.73**		**0**	**90**	**85**	**283.96**	**198**	**76**	107	107	281.67
3R-3 (Piece 5, 122.0–129.0)	V2		281.74	281.81		183		90						
3R-3 (Piece 5, 123.0–124.0)	V3		281.75	281.76		264	354	33					107	281.75
3R-3 (Piece 5, 129.5–132)	V4		281.82	281.84		232	322	44					107	281.83
		281.85												
3R-4 (Piece 1, 1.0–1.5)	V3		281.86	281.87		165		10						
3R-4 (Piece 1, 30.0–30.0)	V1		282.15	282.15		90		4						
3R-4 (Piece 1, 36.0–37.5)	V2		282.21	282.23		150		28	284.07	64	48			
3R-4 (Piece 2, 39.0–42.0)	V1		282.24	282.27		157	247	40	284.09	88	21		–243	282.25
3R-4 (Piece 2, 43.0–46.0)	V2		**282.28**	**282.31**		**195**	**285**	**15**	**284.57**	**43**	**15**	–243	–243	282.29
3R-4 (Piece 3, 47.0–49.0)	V1		282.32	282.34		350	80	22					–105	282.33
3R-4 (Piece 3, 59.0–59.0)	V3		282.44	282.44		90	180	35					–105	282.44
3R-4 (Piece 3, 57.5–64.0)	V2		**282.43**	**282.49**		**175**	**265**	**63**	**284.76**	**161**	**64**	–105	–105	282.46
3R-4 (Piece 4, 65.5–74.0)	J1		282.51	282.59		184		90						
3R-4 (Piece 4, 74.5–74.5)	V1		282.60	282.60		39		6						
		285.10			0									
4R-1 (Piece 1, 0.5–5.0)	V1		285.11	285.15		337		40						
4R-1 (Piece 1, 19.5–20.5)	V2		285.30	285.31		0		20						
4R-1 (Piece 1, 28.5–29.5)	V3		285.39	285.40		321		14						
4R-1 (Piece 1, 40.0–41.0)	V4		285.50	285.51		0		10						
4R-1 (Piece 2, 42.0–42.5)	V5		285.52	285.53		0	270	10					–117	285.52
4R-1 (Piece 2, 52.5–55.0)	V1		**285.63**	**285.65**		**120**	**210**	**28**	**285.23**	**94**	**27**	–117	–117	285.64
4R-1 (Piece 2, 68.0–69.0)	V2		285.78	285.79		45	135	14	286.13	124	2		–117	285.79
4R-1 (Piece 2, 89.0–90.0)	V3		285.99	286.00		116	206	11					–117	286.00
4R-1 (Piece 2, 93.5–95.0)	V4		286.04	286.05		149	239	12					–117	286.04

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth				Real and calculated			FMS/UBI data			Rotation		Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
4R-1 (Piece 3, 119.5–120.0)	V1		286.30	286.30		129		13						
4R-1 (Piece 3, 120.0–122.0)	V2		286.30	286.32		205		90						
4R-1 (Piece 3, 117.5–120.0)	V5		286.28	286.30		23		47						
4R-1 (Piece 3, 121.5–122.0)	J1		286.32	286.32		0		4						
4R-1 (Piece 3, 136.5–138.5)	V4		286.47	286.49		296		22						
		286.49												
4R-2 (Piece 1A, 1.0–1.0)	V1		286.50	286.50		207	297	19					–93	286.50
4R-2 (Piece 1A, 10.0–12.5)	V2		286.59	286.62		185	275	21					–93	286.60
4R-2 (Piece 1A, 44.0–46.0)	V3		286.93	286.95		248	338	26					–93	286.94
4R-2 (Piece 1A, 52.5–55.0)	V4		287.02	287.04		180	270	16					–93	287.03
4R-2 (Piece 1A, 54.5–55.0)	V5		287.04	287.04		180	270	6					–93	287.04
4R-2 (Piece 1A, 55.0–56.0)	V11		287.04	287.05		193	283	35					–93	287.05
4R-2 (Piece 1B, 57.0–59.5)	V6		287.06	287.09		142	232	24					–93	287.07
4R-2 (Piece 1B, 68.5–70.5)	V7		287.18	287.20		120	210	25					–93	287.18
4R-2 (Piece 1B, 72.0–74.0)	V8		**287.21**	**287.23**		**140**	**230**	**24**	**286.75**	**113**	**31**	–117	–93	287.22
4R-2 (Piece 1B, 78.0–80.0)	V9		287.27	287.29		175	265	21					–93	287.28
4R-2 (Piece 1B, 120.5–122.0)	V10		**287.70**	**287.71**		**183**	**273**	**32**	**287.22**	**205**	**30**	–68	–93	287.70
		287.70												
4R-3 (Piece 1A, 1.0–2.0)	V1		286.50	286.51		198		20	287.32	315	19			
4R-3 (Piece 1A, 41.5–44.0)	V3		288.12	288.14		124		28						
4R-3 (Piece 1A, 33.0–37.0)	V2		288.03	288.07		180		32						
4R-3 (Piece 1A, 70.0–73.0)	V4		288.40	288.43		212		23						
4R-3 (Piece 1A, 72.0–76.0)	V5		288.42	288.46		166		30						
4R-3 (Piece 1A, 83.0–86.0)	V6		288.53	288.56		235		36						
4R-3 (Piece 1A, 95.0–96.5)	V7		288.65	288.67		165		11	288.72	6	8			
4R-3 (Piece 1B, 131.5–132.0)	V8		289.02	289.02		\		0						
		289.06												
4R-4 (Piece 1B, 2.5–6.0)	V1		289.09	289.12		237	327	42					–65	289.10
4R-4 (Piece 1B, 18.0–18.0)	J1		289.24	289.24		350	80	5					–65	289.24
4R-4 (Piece 1B, 54.0–57.0)	V3		289.60	289.63		225	315	39					–65	289.61
4R-4 (Piece 1B, 71.5–74.0)	V5		**289.78**	**289.80**		**298**	**28**	**20**	**289.17**	**60**	**24**	32	–65	289.79
4R-4 (Piece 1B, 80.0–83.5)	V6		289.86	289.90		190	280	30					–65	289.88
4R-4 (Piece 1B, 98.5–101.0)	V7		290.05	290.07		165	255	19					–65	290.06
4R-4 (Piece 1B, 107.5–110.0)	V8		**290.14**	**290.16**		**165**	**255**	**19**	**289.47**	**93**	**27**	–162	–65	290.15
4R-4 (Piece 1B, 113.0–117.0)	V9		290.19	290.23		165	255	19	289.99	354	18		–65	290.22
4R-4 (Piece 1B, 126.0–129.0)	V11		290.32	290.35		165	255	19					–65	290.33
		290.40			0									
5R-1 (Piece 1, 1.0–2.0)	V2		290.41	290.42		199		19						
5R-1 (Piece 1, 4.5–5.0)	V3		290.45	290.45										
5R-1 (Piece 1, 14.5–15.5)	V1		290.55	290.56		200		17						
5R-1 (Piece 2, 24.0–25.0)	V1		290.64	290.65		0		10						
5R-1 (Piece 2, 28.5–29.0)	V2		290.69	290.69		\		0						
5R-1 (Piece 2, 31.0–32.0)	V3		290.71	290.72		0		21						
5R-1 (Piece 3A, 43.0–46.0)	V1		290.83	290.86		345	75	25					–5	290.85
5R-1 (Piece 3A, 57.0–75.0)	F1		**290.97**	**291.15**		**175**	**265**	**64**	**290.28**	**260**	**74**	–5	–5	291.06
5R-1 (Piece 3B, 105.0–109.5)	V4		291.45	291.50		23	113	34	290.78	107	22		–5	291.47
5R-1 (Piece 3B, 117.0–119.0)	V5		291.57	291.59		302	32	39	290.84	115	21		–5	291.58
5R-1 (Piece 4, 124.5–125.0)	V1		**291.65**	**291.65**		**185**	**275**	**23**	**290.91**	**115**	**21**	–161	–161	291.65
5R-1 (Piece 4, 125.5–126.0)	V2		291.66	291.66		180	270	4					–161	291.66
5R-1 (Piece 4, 139.0–139.5)	J1		291.79	291.80		345	75	6	291.17	216	15		–161	291.75
		291.80												
5R-2 (Piece 1A, 1.0–1.0)	J1		291.81	291.81		\		0	292.10	177	33		240	291.81
5R-2 (Piece 1B, 72.0–72.5)	V1		292.52	292.53		327	57	14	292.22	18	62		240	292.52
5R-2 (Piece 1B, 70.5–71.5)	J2		292.51	292.52		27	117	7					240	292.51

Table T1 (continued).

Core, section, piece, interval (cm)	Identifier*	Core data: Depth: Corrected depth of section top (mbsf) (1)	Core data: Depth: Depth of top of structure (mbsf) (2)	Core data: Depth: Depth of bottom of structure (mbsf) (3)	Core data: Depth: Depth error of core (m) (4)	Core data: Real and calculated: Strike (°) (5)	Core data: Real and calculated: Dip direction (°) (6)	Core data: Real and calculated: Dip angle (°) (7)	FMS/UBI data: Depth (m) (8)	FMS/UBI data: Dip direction (°) (9)	FMS/UBI data: Dip angle (°) (10)	Rotation: Calculated rotation angle (Δ°) (11)	Rotation: Utilized rotation angle (Δ°) (12)	Reoriented structures: Average depth (mbsf) (13)
5R-2 (Piece 1B, 113.0–113.0)	V2		292.93	292.93		90	0	7					240	292.93
5R-2 (Piece 1C, 139.0–144.0)	V3		**293.19**	**293.24**		**24**	**114**	**42**	**292.30**	**355**	**50**	240	240	293.22
		293.27												
5R-3 (Piece 1A, 0.0–2.0)	J1		293.27	293.29		165	255	16					123	293.28
5R-3 (Piece 1A, 11.5–12.5)	J2		293.39	293.40		300	30	8					123	293.39
5R-3 (Piece 1B, 13.0–19.0)	V1		**293.40**	**293.46**		**159**	**249**	**45**	**292.91**	**33**	**43**	143	123	293.43
5R-3 (Piece 1B, 27.0–35.0)	V2		293.54	293.62		248	338	62	293.37	165	23		123	293.58
5R-3 (Piece 1B, 31.0–32.5)	V3		293.58	293.60		30	120	19					123	293.59
5R-3 (Piece 1B, 51.0–55.0)	V4		293.78	293.82		0	90	65					123	293.80
5R-3 (Piece 1C, 69.0–74.0)	V5		**293.96**	**294.01**		**230**	**320**	**48**	**293.18**	**64**	**43**	103	123	293.98
		294.30												
5R-4 (Piece 1, 12.0–19.0)	V1		294.42	294.49		30		47	293.61	175	8			
5R-4 (Piece 1, 62.0–64.0)	V2		294.92	294.94		137		21	294.31	85	25			
									294.37	257	47			
									294.41	267	40			
		295.20			0									
6R-1 (Piece 2A, 42.0–42.5)	J1		295.62	295.63		59		6	295.61	338	59			
6R-1 (Piece 2B, 72.5–79.0)	V1		295.93	295.99		157		72	295.70	295	25			
									295.86	173	16			
		296.40												
6R-2 (Piece 1, 3.0–7.0)	F1		296.43	296.47		168		56						
6R-2 (Piece 3A, 13.5–15.0)	V1		296.54	296.55		171	261	12	296.58	68	20		–10	296.54
6R-2 (Piece 3A, 12.0–16.0)	SV19		**296.52**	**296.56**		**198**	**288**	**70**	**296.56**	**316**	**73**	28	–10	296.54
6R-2 (Piece 3A, 14.0–16.5)	V2		296.54	296.57		180	270	28					–10	296.55
6R-2 (Piece 3A, 16.5–16.5)	V20		296.57	296.57		90	180	15					–10	296.56
6R-2 (Piece 3B, 17.0–18.0)	V3		296.57	296.58		225	315	11					–10	296.58
6R-2 (Piece 3B, 26.0–29.5)	SV4		296.66	296.70		70	340	80					–10	296.68
6R-2 (Piece 3B, 19.5–31.0)	SV5		**296.60**	**296.71**		**167**	**257**	**82**	**296.66**	**310**	**68**	53	–10	296.55
6R-2 (Piece 3B, 16.0–20.0)	V7		296.56	296.60		228	138	90	297.12	195	23		–10	296.58
6R-2 (Piece 3C, 70.0–79.5)	V8		297.10	297.20		172	264	74					–10	297.15
6R-2 (Piece 3C, 80.0–95.0)	V9		**297.20**	**297.35**		**209**	**299**	**78**	**297.30**	**226**	**72**	74	–10	297.27
6R-2 (Piece 3C, 97.0–99.0)	V10		297.37	297.39		317	47	19					–10	297.38
6R-2 (Piece 3C, 98.0–98.5)	V11		297.38	297.39		311	41	19					–10	297.38
6R-2 (Piece 3C, 111.0–112.5)	V12		297.51	297.53		19	109	15					–10	297.52
6R-2 (Piece 3C, 115.0–116.0)	V13		297.55	297.56		54	144	13					–10	297.55
6R-2 (Piece 3C, 116.5–116.5)	V14		297.57	297.57		334	64	9					–10	297.56
6R-2 (Piece 3D, 114.0–130.0)	SV15		**297.54**	**297.70**		**182**	**272**	**72**	**297.56**	**311**	**80**	39	–10	297.62
6R-2 (Piece 3D, 121.0–129.5)	SV17		297.61	297.70		160	70	71					–10	297.65
6R-2 (Piece 3D, 129.0–130.5)	V18		**297.69**	**297.71**		**160**	**250**	**38**	**297.60**	**204**	**48**	–47	–10	297.70
		297.71												
6R-3 (Piece 1A, 2.0–4.0)	V1		297.73	297.75		332	62	20					78	297.74
6R-3 (Piece 1A, 3.5–8.0)	SV2		**297.75**	**297.79**		**327**	**57**	**68**	**297.87**	**135**	**65**	78	78	297.77
6R-3 (Piece 1A, 19.0–24.0)	V3		297.90	297.95		219	309	52	297.88	159	53		78	297.90
6R-3 (Piece 1A, 40.0–40.0)	V4		298.11	298.11		90	0	12					78	298.11
6R-3 (Piece 2, 69.0–78.5)	V1		298.40	298.50		5		62						
6R-3 (Piece 2, 105.5–120.5)	SV2		298.77	298.92		6		90	298.21	218	24			
6R-3 (Piece 2, 108.0–111.5)	SV4		298.79	298.83		177		71	298.52	352	21			
6R-3 (Piece 2, 121.0–121.5)	V3		298.92	298.93		137		19	298.57	266	19			
		298.94												
6R-4 (Piece 1A, 0.0–6.0)	V1		298.94	299.00		0		50						
6R-4 (Piece 1A, 7.0–7.0)	J1		299.01	299.01		\		0						
6R-4 (Piece 1B, 9.0–11.5)	V3		299.03	299.06		195		32	299.12	218	31			
6R-4 (Piece 3, 37.0–38.0)	V1		**299.31**	**299.32**		**4**	**94**	**36**	**299.27**	**349**	**31**	–105	–105	299.32
6R-4 (Piece 4A, 39.5–39.5)	V1		299.34	299.34		90	180	12	299.63	229	32		142	299.33

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth												
						Real and calculated			FMS/UBI data			Rotation		Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
6R-4 (Piece 4A, 40.0–40.0)	V2		299.34	299.34		90	180	7					142	299.34
6R-4 (Piece 4A, 73.0–74.5)	V3		299.67	299.69		180	270	14					142	299.68
6R-4 (Piece 4B, 83.0–83.5)	V5		299.77	299.78		126	216	13	299.87	170	18		142	299.77
6R-4 (Piece 4B, 98.0–108.0)	V6		**299.92**	**300.02**		**352**	**82**	**76**	**299.81**	**309**	**74**	142	142	299.97
6R-4 (Piece 4B, 108.0–108.0)	V7		**300.02**	**300.02**		**141**	**231**	**6**	**299.97**	**224**	**12**	–4	142	300.02
									299.99	227	25			
		300.21												
6R-5 (Piece 1, 2.0–4.0)	V1		**300.23**	**300.25**		**167**	**257**	**43**	**300.31**	**147**	**40**	–111	–111	300.24
6R-5 (Piece 1, 13.5–16.0)	V2		300.35	300.37		335	65	32					–111	300.36
6R-5 (Piece 1, 16.0–17.0)	V3		300.37	300.38		292	22	13					–111	300.38
6R-5 (Piece 1, 16.0–16.5)	V5		300.37	300.38		292	22	13					–111	300.37
6R-5 (Piece 1, 16.0–19.0)	SV4		300.37	300.40		5	95	75					–111	300.38
6R-5 (Piece 2, 21.0–40.0)	V1		300.42	300.61		180		82						
6R-5 (Piece 2, 39.0–45.0)	V2		300.60	300.66		167		65						
6R-5 (Piece 2, 46.0–53.0)	V3		300.67	300.74		179		56						
6R-5 (Piece 2, 49.0–54.0)	V4		300.70	300.75		185		90						
6R-5 (Piece 2, 59.0–62.0)	V5		300.80	300.83		171		30						
6R-5 (Piece 2, 68.0–69.5)	V6		300.89	300.91		339		16						
6R-5 (Piece 3A, 73.5–73.8	V1		300.95	300.95		180	90	2	300.63	165	8		–260	300.94
6R-5 (Piece 3A, 73.5–75.0)	V2		300.95	300.96		11	101	10	300.76	198	17		–260	300.95
6R-5 (Piece 3A, 80.0–81.5)	V3		301.01	01.03		166	256	8	300.97	120	15		–260	301.02
6R-5 (Piece 3A, 82.5–82.5)	V4		301.04	301.04		45	135	7	301.17	150	16		–260	301.03
6R-5 (Piece 3A, 84.0–84.5)	V5		301.05	301.06		\	\	0					–260	301.05
6R-5 (Piece 3B, 85.0–85.0)	V6		301.06	301.06		112	202	5					–260	301.06
6R-5 (Piece 3B, 77.0–97.5)	SV7		**300.98**	**301.19**		**170**	**260**	**80**	**301.70**	**0**	**70**	–260	–260	301.08
6R-5 (Piece 3B, 89.0–90.0)	V8		301.10	301.11		26	116	22					–260	301.10
6R-5 (Piece 4, 130.0–131.0)	V1		301.51	301.52		51		13						
		301.52												
6R-6 (Piece 1A, 0.0–0.0)	V1		301.52	301.52		210	120	11					–107	301.52
6R-6 (Piece 1A, 24.0–24.5)	V2		301.76	301.77		64	154	11	301.51	143	34		–107	301.76
6R-6 (Piece 1B, 38.0–41.0)	V3		**301.90**	**301.93**		**173**	**263**	**25**	**301.98**	**156**	**31**	–107	–107	301.92
6R-6 (Piece 1C, 61.0–61.5)	V4		302.13	302.14		64	154	11	302.42	238	5		–107	302.13
6R-6 (Piece 1C, 73.5–73.5)	V5		302.26	302.26		101	191	19	302.71	237	48		–107	302.25
6R-6 (Piece 2, 132.5–133.0)	V2		302.85	302.85		198		6						
6R-6 (Piece 2, 134.0–135.0)	V3		302.86	302.87		215		9	302.76	160	8			
6R-6 (Piece 2, 136.5–137.5)	V4		302.89	302.90		296		11						
		303.04												
6R-7 (Piece 1A, 0.0–0.0)	V1		303.04	303.04		\		0						
6R-7 (Piece 1A, 11.0–11.0)	V2		303.15	303.15		90		3						
6R-7 (Piece 1A, 12.0–21.0)	V3		303.16	303.25		165		54	303.52	29	72			
6R-7 (Piece 1A, 34.0–68.0)	V4		303.38	303.72		340		77						
6R-7 (Piece 1A, 44.5–44.5)	V5		303.49	303.49		180		3						
6R-7 (Piece 1B, 79.0–81.0)	V13		303.83	303.85		90		18						
6R-7 (Piece 1B, 82.5–85.0)	V7		303.87	303.89		308		38						
6R-7 (Piece 1B, 129.5–130.0)	V8		304.34	304.34		53		16						
6R-7 (Piece 1C, 130.0–135.0)	V9		304.34	304.39		173		64	303.55	201	64			
6R-7 (Piece 1C, 136.5–136.5)	V11		304.41	304.41		\		0						
6R-7 (Piece 1D, 134.5–138.0)	V10		304.39	304.42		36		57						
6R-7 (Piece 1D, 137.5–141.0)	F1		304.42	304.45		119		48						
		304.49			1									
7R-1 (Piece 1A, 0.0–3.0)	V1		304.49	304.52		133		51	304.54	161	10			
7R-1 (Piece 1A, 0.0–6.0)	V2		304.49	304.55		355		58	304.62	66	9			
7R-1 (Piece 1A, 5.0–10.0)	SV3		304.54	304.59		177		90	304.74	103	6			
7R-1 (Piece 1A, 7.0–16.0)	V4		304.56	304.65		351		74	305.03	152	5			

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data: Depth	Core data: Depth	Core data: Depth	Core data	Core data: Real and calculated	Core data: Real and calculated	Core data: Real and calculated	FMS/UBI data	FMS/UBI data	FMS/UBI data	Rotation	Rotation	Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
7R-1 (Piece 1A, 11.0–12.5)	V5		304.60	304.62		144		24	305.45	97	4			
7R-1 (Piece 1B, 16.0–18.0)	V6		304.65	304.67		348		57						
7R-1 (Piece 1B, 42.5–43.0)	V7		304.92	304.92		135		6						
7R-1 (Piece 1C, 48.5–49.5)	V9		304.98	304.99		180		10						
7R-1 (Piece 1C, 46.0–46.5)	V8		304.95	304.96		172		14						
7R-1 (Piece 2A, 96.0–144.0)	V1		305.45	305.93		0		90	305.48	297	3			
7R-1 (Piece 2A, 125.0–126.0)	V2		305.74	305.75		326		7	305.58	190	15			
7R-1 (Piece 2B, 131.5–132.5)	V3		305.81	305.82		158		11	305.77	43	18			
7R-1 (Piece 2C, 138.0–138.5)	V4		305.87	305.88		250		12						
		306.00												
7R-2 (Piece 1, 0.5–0.5)	V1		305.97	305.97		326		4	305.98	63	5			
7R-2 (Piece 3, 76.0–76.0)	V1		306.72	306.72		112		5	306.66	298	7			
7R-2 (Piece 3B, 79.0–79.5)	V2		306.75	306.76		225		4	306.93	98	37			
7R-2 (Piece 3B, 76.0–79.0)	V5		306.72	306.75		228		90						
7R-2 (Piece 3C, 108.5–110.5)	F1		307.05	307.07		165		13						
		307.00												
7R-3 (Piece 2A, 24.0–28.0)	V1		307.51	307.55		189	280	66					–94	307.53
7R-3 (Piece 2A, 35.0–35.0)	V2		307.62	307.62		\	\	0					–94	307.62
7R-3 (Piece 2A, 60.5–60.5)	V3		307.88	307.88		135	225	6					–94	307.87
7R-3 (Piece 2A, 60.0–60.5)	SV4		307.87	307.88		225	315	6					–94	307.87
7R-3 (Piece 2B, 70.0–70.5)	SV5		307.97	307.98		24	114	10					–94	307.97
7R-3 (Piece 2C, 76.0–82.0)	V6		308.03	308.09		207	297	48					–94	308.06
7R-3 (Piece 2D, 80.0–80.5)	V7		308.07	308.08		90	0	15					–94	308.07
7R-3 (Piece 2D, 97.5–99.0)	V8		308.25	308.26		215	305	12					–94	308.25
7R-3 (Piece 2D, 98.0–98.0)	V9		308.25	308.25		\	\	0					–94	308.25
7R-3 (Piece 2E, 111.0–136.0)	V10		**308.38**	**308.63**		**39**	**129**	**76**	**307.01**	**36**	**69**	–94	–94	308.50
7R-3 (Piece 2E, 135.0–137.0)	V11		308.62	308.64		236	316	19	307.05	76	12		–94	308.63
7R-3 (Piece 2E, 135.0–137.0)	SV12		308.62	308.64		218	308	25					–94	308.63
		309.00												
7R-4 (Piece 1A, 0.0–6.0)	V1		308.64	308.70		143		15						
7R-4 (Piece 4A, 44.5–49.5)	V1		309.09	309.14		90		75	307.43	97	14			
7R-4 (Piece 4A, 44.5–49.0)	V2		309.09	309.13		160		76	307.68	56	22			
7R-4 (Piece 4A, 49.0–50.0)	SV3		309.13	309.14		4		10						
7R-4 (Piece 4B, 49.5–59.0)	V4		309.14	309.23		168		77						
7R-4 (Piece 6A, 65.0–66.5)	SV1		309.29	309.31		12		51	308.31	239	17			
7R-4 (Piece 6A, 68.5–81.0)	V2		309.33	309.45		10		70	308.50	68	2			
7R-4 (Piece 6A, 80.0–81.0)	V3		309.44	309.45		51		6	309.22	199	11			
7R-4 (Piece 6B, 114.5–116.0)	V4		309.79	309.80		187		8						
7R-4 (Piece 6C, 143.5–143.5)	V5		310.08	310.08		90		4						
		310.00												
7R-5 (Piece 1A, 0.0–1.0)	V1		310.08	310.09		160		10						
7R-5 (Piece 1A, 9.0–9.5)	V2		310.17	310.18		135		6						
7R-5 (Piece 1A, 13.0–31.0)	V3		310.21	310.39		200		81	310.25	357	6			
7R-5 (Piece 1B, 34.0–37.0)	V4		310.42	310.45		212		34	310.43	287	6			
7R-5 (Piece 1B, 58.0–60.5)	V5		310.66	310.69		29		27	310.66	267	14			
7R-5 (Piece 1B, 60.5–63.0)	F1		310.69	310.71		230		40	310.75	59	19			
7R-5 (Piece 10, 112.0–112.5)	V1		311.20	311.21		310		15	310.83	233	18			
									310.85	28	16			
									311.06	64	20			
		311.00												
7R-6 (Piece 1A, 0.0–3.0)	V2		311.33	311.36		165		65	311.51	80	11			
7R-6 (Piece 1A, 3.5–12.0)	V3		311.37	311.45		352		47	311.69	68	9			
7R-6 (Piece 1A, 7.0–8.0)	V4		311.40	311.41		135		21						
7R-6 (Piece 1B, 23.0–24.0)	V5		311.56	311.57		325		12						

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth										Rotation		Reoriented structures
						Real and calculated			FMS/UBI data					
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
7R-6 (Piece 1C, 28.0–29.0)	V6		311.61	311.62		0		15						
7R-6 (Piece 2A, 30.0–32.0)	V1		311.63	311.65		180	90	7					–40	311.64
7R-6 (Piece 2A, 31.0–31.0)	V2		311.64	311.64		90	0	10	312.06	6	6		–40	311.64
7R-6 (Piece 2B, 31.0–39.0)	V3		311.64	311.72		207	297	7					–40	311.68
7R-6 (Piece 2B, 40.0–49.0)	V4		311.73	311.82		156	246	67					–40	311.78
7R-6 (Piece 2B, 46.0–50.0)	F1		**311.79**	**311.83**		**0**	**270**	**44**	**312.50**	**231**	**36**	–40	–40	311.81
7R-6 (Piece 4, 54.0–60.0)	F1		**311.87**	**311.93**		**196**	**106**	**42**	**312.63**	**80**	**32**	–26	–26	311.90
7R-6 (Piece 7, 107.5–108.0)	V1		312.41	1312.41		30	300	13					–26	312.40
7R-6 (Piece 8, 109.0–109.0)	V1		312.42	312.42		170	260	8					–26	312.42
		313.00												
7R-7 (Piece 1A, 0.0–0.5)	V1		312.64	312.65		186		12	313.40	265	47			
7R-7 (Piece 1A, 1.5–2.0)	V2		312.66	312.66		\		0						
		314.00			1.15									
8R-1 (Piece 3, 31.0–32.0)	V1		314.20	314.21		180		25						
8R-1 (Piece 4A, 34.0–36.5)	V1		314.23	314.26		168		23	314.64	130	73			
8R-1 (Piece 4A, 35.0–38.0)	V2		314.24	314.27		173		34	315.16	30	20			
8R-1 (Piece 4B, 46.5–47.0)	V13		314.36	314.36		29		10						
8R-1 (Piece 4C, 51.0–51.5)	V4		314.40	314.41		40		8						
8R-1 (Piece 4B, 86.0–87.0)	SV5		314.75	314.76		180		20	315.16	163	7			
8R-1 (Piece 5A, 89.5–92.0)	SV1		314.79	314.81		36		24						
8R-1 (Piece 5B, 113.0–119.5)	V2		315.02	315.09		203		54						
8R-1 (Piece 5B, 115.5–120.0)	V3		315.05	315.09		210		40						
8R-1 (Piece 5C, 116.0–140.5)	V4		315.05	315.30		180		76						
8R-1 (Piece 5C, 127.0–127.5)	V5		315.16	315.17		45		14						
8R-1 (Piece 5D, 139.0–141.0)	V6		315.28	315.30		191		24						
		315.00												
8R-2 (Piece 1A, 0.0–3.0)	V1		315.32	315.35		195		26	315.35	316	7			
8R-2 (Piece 1A, 6.0–14.0)	SV2		315.38	315.46		151		57	315.37	295	7			
8R-2 (Piece 1A, 10.0–14.0)	V3		315.42	315.46		130		53	315.96	270	6			
8R-2 (Piece 1B, 15.0–16.5)	V4		315.47	315.49		141		27	316.12	222	13			
8R-2 (Piece 1B, 18.5–19.5)	SV5		315.51	315.52		264		60	316.55	225	7			
8R-2 (Piece 2A, 39.0–34.0)	V1		315.71	315.66		90	180	5					–189	315.68
8R-2 (Piece 2B, 75.5–79.0)	V2		**316.08**	**316.11**		**232**	**322**	**31**	**316.63**	**82**	**29**	–241	–189	316.09
8R-2 (Piece 2B, 77.5–79.5)	V3		**316.10**	**316.12**		**129**	**219**	**26**				–138	–189	316.10
8R-2 (Piece 2B, 78.0–80.5)	V4		316.10	316.13		238	328	34					–189	316.11
		316.00												
8R-3 (Piece 1A, 0.0–1.0)	V1		316.16	316.17		0		18						
8R-3 (Piece 1A, 2.0–4.0)	SV2		316.18	316.20		173		20						
8R-3 (Piece 1B, 4.0–6.0)	SV3		316.20	316.22		190		20						
8R-3 (Piece 1B, 5.5–7.0)	SV4		316.22	316.23		39		13						
8R-3 (Piece 1C, 7.0–8.0)	SV6		316.23	316.24		64		22						
8R-3 (Piece 1E, 5.5–12.5)	SV7		316.22	316.29		227		54						
8R-3 (Piece 1E, 10.0–28.0)	V8		316.26	316.44		347		83						
8R-3 (Piece 1E, 23.5–24.5)	V9		316.40	316.41		180		10						
8R-3 (Piece 1E, 53.0–54.0)	V10		316.69	316.70		0		7						
8R-3 (Piece 1E, 66.0–68.0)	V11		316.82	316.84		180		23						
8R-3 (Piece 1E, 68.0–68.0)	V12		316.84	316.84		236		7						
		317.00												
8R-4 (Piece 1A, 0.0–0.5)	V1		316.85	316.86		4	94	5	317.05	309	3		–31	316.85
8R-4 (Piece 1A, 20.5–22.0)	V2		317.06	317.07		137	227	17	317.14	209	15		–31	317.06
8R-4 (Piece 1A, 23.5–25.0)	V3		317.09	317.10		301	31	15	317.35	338	13		–31	317.09
8R-4 (Piece 1A, 72.5–74.0)	V4		317.58	317.59		32	122	19	317.47	222	7		–31	317.58
8R-4 (Piece 1A, 75.5–83.5)	SV5		317.61	317.69		2	272	85	317.50	236	9		–31	317.64
8R-4 (Piece 1B, 84.0–84.5)	V7		317.69	317.70		123	213	18	317.81	194	32		–31	317.69

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth				Real and calculated			FMS/UBI data			Rotation		Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
8R-4 (Piece 1B, 84.0–105.0)	SV8		317.69	317.90		188	278	87					–31	317.80
8R-4 (Piece 1B, 102.5–107.0)	V9		317.88	317.92		4	94	78					–31	317.90
8R-4 (Piece 1B, 90.0–90.0)	V10		317.75	317.75		90	180	6					–31	317.75
8R-4 (Piece 1B, 98.0–98.0)	V11		317.83	317.83		\	\	0	318.85	57	3		–31	317.83
8R-4 (Piece 1B, 110.0–117.0)	V12		317.95	318.02		175	265	83	318.94	211	24		–31	317.98
8R-4 (Piece 1B, 117.0–130.0)	SV13		**318.02**	**318.15**		**170**	**260**	**77**	**319.01**	**229**	**82**	–31	–31	318.08
8R-4 (Piece 1B, 117.0–134.0)	V14		318.02	318.19		350	80	83					–31	318.10
8R-4 (Piece 1B, 134.0–136.0)	SV15		318.19	318.21		350	80	65					–31	318.20
8R-4 (Piece 1B, 133.5–142.0)	SV16		318.19	318.27		350	80	33					–31	318.23
8R-4 (Piece 1B, 136.0–140.0)	SV17		318.21	318.25		30	120	44					–31	318.23
		318.00												
8R-5 (Piece 1, 1.0–3.0)	SV1		318.31	318.33		197		33						
8R-5 (Piece 1, 3.0–6.5)	SV2		318.33	318.37		182		65						
8R-5 (Piece 1, 40.0–43.0)	V3		318.70	318.73		135		28						
8R-5 (Piece 2A, 56.5–57.0)	V1		318.87	318.87		90		6						
8R-5 (Piece 2B, 57.5–57.5)	V2		318.88	318.88		\		0						
8R-5 (Piece 2B, 65.0–65.5)	V3		318.95	318.96		0		7						
8R-5 (Piece 2D, 68.0–68.0)	V4		318.98	318.98		\		0						
8R-5 (Piece 2D, 68.5–70.5)	V5		318.99	319.01		118		20						
8R-5 (Piece 2D, 65.0–67.5)	V6		318.95	318.98		0		90						
8R-5 (Piece 2D, 80.0–81.5)	V7		319.10	319.12		118		20	319.04	43	13			
8R-5 (Piece 3A, 87.5–87.5)	V1		319.18	319.18		187		18						
8R-5 (Piece 3A, 89.5–89.5)	V2		319.20	319.20		90		8						
8R-5 (Piece 3A, 92.5–92.5)	V3		319.23	319.23		\		0	319.46	38	5			
8R-5 (Piece 3A, 93.5–106.0)	V4		319.24	319.36		192		72	319.69	31	19			
8R-5 (Piece 3A, 99.0–102.0)	V5		319.29	319.32		180		15						
8R-5 (Piece 3A, 104.0–105.0)	V6		319.34	319.35		342		16						
8R-5 (Piece 3A, 105.0–106.0)	V7		319.35	319.36		48		13						
8R-5 (Piece 3C, 106.0–109.5)	V9		319.36	319.40		2		67						
8R-5 (Piece 3C, 109.0–110.0)	V8		319.39	319.40		39		6						
8R-5 (Piece 3D, 126.0–128.0)	V10		319.56	319.58		17		17						
		320.00												
8R-6 (Piece 1A, 0.0–0.5)	V1		319.70	319.71		\		0						
8R-6 (Piece 1A, 2.0–2.0)	V2		319.72	319.72		\		0						
8R-6 (Piece 1A, 3.5–4.5)	V3		319.74	319.75		231		13						
8R-6 (Piece 1B, 8.0–8.5)	V4		319.78	319.79		98		32						
8R-6 (Piece 1B, 9.0–15.5)	V5		319.79	319.86		250		70						
8R-6 (Piece 1B, 18.0–23.0)	V6		319.88	319.93		242		61	319.77	48	13			
8R-6 (Piece 1B, 14.0–14.0)	V7		319.84	319.84		90		9	320.20	103	2			
8R-6 (Piece 1B, 18.0–18.5)	V8		319.88	319.89		\		0	320.49	353	8			
8R-6 (Piece 1B, 63.5–63.5)	V9		320.34	320.34		\		0						
8R-6 (Piece 1B, 64.0–64.0)	V10		320.34	320.34		\		0	320.87	76	7			
8R-6 (Piece 2A, 74.0–74.0)	V1		320.44	320.44		309		6	321.12	16	15			
8R-6 (Piece 2B, 82.5–100.0)	SV2		320.53	320.70		187		73	321.21	30	17			
8R-6 (Piece 2B, 92.5–93.0)	V5		320.63	320.63		0		9	321.43	26	36			
8R-6 (Piece 2B, 103.0–108.0)	SV6		320.73	320.78		157		70	321.51	36	17			
		321.00												
8R-7 (Piece 1B, 3.0–3.0)	V1		320.82	320.82		\		0	321.54	30	15			
8R-7 (Piece 1B, 3.0–22.0)	SV2		320.82	321.01		184		76	321.72	12	23			
8R-7 (Piece 1A, 7.0–10.0)	V3		320.86	320.89		223		58	322.04	23	57			
8R-7 (Piece 1A, 16.0–17.0)	V4		320.95	320.96		225		25						
8R-7 (Piece 1A, 20.0–21.5)	V5		320.99	321.01		232		25						
8R-7 (Piece 1A, 40.0–53.0)	SV6		321.19	321.32		157		73						
8R-7 (Piece 1A, 45.5–47.5)	V7		321.25	321.27		330		36	322.54	173	33			

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth										Rotation		Reoriented structures
						Real and calculated			FMS/UBI data					
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
8R-7 (Piece 1A, 45.0–46.0)	V8		321.24	321.25		39		13	322.78	10	13			
8R-7 (Piece 1A, 49.5–50.0)	V9		321.29	321.29		26		22						
8R-7 (Piece 1C, 62.5–63.0)	V10		321.42	321.42		99		12						
8R-7 (Piece 3A, 76.0–76.5)	V1		321.55	321.56		\		0						
8R-7 (Piece 3A, 78.0–78.5)	V2		321.57	321.58		174		5						
8R-7 (Piece 3B, 89.0–90.0)	V3		321.68	321.69		349		10						
8R-7 (Piece 3B, 90.0–91.0)	V4		321.69	321.70		97		23	323.49	35	5			
8R-7 (Piece 3C, 93.5–93.5)	V5		321.73	321.73		90		34	323.59	2	6			
8R-7 (Piece 3C, 112.0–112.5)	V6		321.91	321.92		90		3	324.43	289	17			
8R-7 (Piece 3D, 122.0–140.0)	V7		322.01	322.19		157		72						
		323.39												
9R-1 (Piece 1, 0.0–0.0)	V1		323.39	323.39				0						
9R-1 (Piece 1, 0.0–2.5)	V2		323.39	323.42		345		75						
9R-1 (Piece 4, 53.0–54.0)	V1		323.92	323.93		5		20						
9R-1 (Piece 5A, 55.5–56.5)	V1		323.95	323.96		195	285	12	324.90	198	22		–98	323.95
9R-1 (Piece 5A, 80.5–84.5)	V2		**324.20**	**324.24**		**202**	**292**	**34**	**324.94**	**195**	**34**	–98	–98	324.21
9R-1 (Piece 5B, 99.5–100.5)	V3		324.39	324.40		164	254	18					–98	324.39
9R-1 (Piece 5B, 99.5–101.0)	V4		324.39	324.40		164	254	18					–98	324.39
		325.00												
9R-2 (Piece 1A, 0.5–1.0)	V1		324.59	324.59		193		23						
9R-2 (Piece 1A, 3.0–15.5)	V2		324.61	324.74		170		70						
9R-2 (Piece 1A, 27.0–32.0)	V3		324.85	324.90		37		61						
9R-2 (Piece 1A, 31.5–32.0)	V4		324.90	324.90		0		10						
9R-2 (Piece 1B, 32.0–36.0)	V5		324.90	324.94		0		65	325.49	91	44			
9R-2 (Piece 1B, 34.0–60.0)	V6		324.92	325.18		184		80						
9R-2 (Piece 1B, 91.0–104.0)	V7		325.49	325.62		216		74						
		326.00												
9R-3 (Piece 1, 0.0–37.0)	V1		325.63	326.00		220		82	326.05	30	28			
9R-3 (Piece 1, 36.0–56.5)	V2		325.99	326.20		170		78						
9R-3 (Piece 3A, 85.0–85.5)	V1		326.48	326.49		180		6	326.96	356	15			
9R-3 (Piece 3B, 32.5–32.5)	V3		325.96	325.96		\		0						
		327.00												
9R-4 (Piece 1A, 12.0–24.0)	V1		327.08	327.20		43	133	69					–62	327.14
9R-4 (Piece 1A, 45.0–45.0)	V2		327.41	327.41		90	0	3	327.51	322	19		–62	327.41
9R-4 (Piece 1A, 39.5–77.0)	V3		327.63	327.73		35	125	82	328.34	36	42		–62	327.54
9R-4 (Piece 1B, 126.0–134.0)	V5		**328.22**	**328.30**		**342**	**42**	**61**	**328.92**	**341**	**63**	–62	–62	328.26
9R-4 (Piece 1B, 136.5–138.0)	V6		328.33	328.34		170	180	15					–62	328.33
		328.00												
9R-5 (Piece 1, 0.0–3.0)	SV1		328.41	328.44		215		77						
9R-5 (Piece 1, 58.0–60.0)	V2		328.99	329.01		45		21						
9R-5 (Piece 2A, 59.5–61.5)	V1		329.01	329.03		343	73	31					–107	329.01
9R-5 (Piece 2A, 62.0–70.0)	V2		329.03	329.11		201	291	52					–107	329.07
9R-5 (Piece 2A, 71.5–73.5)	V3		329.13	329.15		65	155	32	329.69	347	10		–107	329.13
9R-5 (Piece 2B, 72.0–73.5)	V4		**329.13**	**329.15**		**45**	**135**	**27**	**329.76**	**28**	**23**	–107	–107	329.14
9R-5 (Piece 2B, 76.5–84.0)	V5		329.18	329.25		135	225	64					–107	329.21
9R-5 (Piece 2B, 90.0–92.0)	V7		329.31	329.33		332	62	20					–107	329.32
9R-5 (Piece 2B, 97.5–99.0)	V8		329.39	329.40		322	52	33					–107	329.39
		329.00			0									
10R-1 (Piece 1A, 20.5–48.0)	V2		329.61	329.88		170		74						
10R-1 (Piece 1A, 47.5–49.5)	V3		329.88	329.90		335		16						
10R-1 (Piece 1A, 50.5–65.0)	V4		329.91	330.05		174		65						
10R-1 (Piece 1A, 58.0–73.0)	V5		329.98	330.13		155		76						
10R-1 (Piece 1A, 83.0–90.0)	V6		330.23	330.30		176		70						
10R-1 (Piece 1A, 93.0–97.0)	J1		330.33	330.37		60		54	330.13	254	4			

Table T1 (continued).

Core, section, piece, interval (cm)	Identifier*	1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth										Rotation		Reoriented structures
						Real and calculated			FMS/UBI data					
		Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
10R-1 (Piece 1A, 95.0–100.0)	J2		330.35	330.40		104		68	330.71	28	24			
10R-1 (Piece 2, 140.0–143.0)	V3		330.80	330.83		97	187	78					–270	330.81
10R-1 (Piece 2, 145.0–147.0)	V4		**330.85**	**330.87**		**225**	**315**	**40**	**331.25**	**45**	**40**	–270	–270	330.86
		331.00												
10R-2 (Piece 1, 1.0–5.0)	V1		330.90	330.94		205	295	50	331.46	240	23		–89	330.92
10R-2 (Piece 1, 0.0–0.0)	V2		330.89	330.89		80	170	65					–89	330.89
10R-2 (Piece 1, 36.5–38.0)	V3		**331.26**	**331.27**		**51**	**141**	**22**	**332.02**	**52**	**25**	–89	–89	331.26
10R-2 (Piece 1, 46.0–49.0)	V4		331.35	331.38		73	163	73					–89	331.37
10R-2 (Piece 1, 39.0–46.0)	V5		331.28	331.35		47	137	67					–89	331.31
10R-2 (Piece 1, 71.0–76.0)	V6		331.60	331.65		209	299	44					–89	331.62
		331.67												
10R-3 (Piece 1A, 11.0–19.0)	V1		331.78	331.86		144	234	59					195	331.82
10R-3 (Piece 1A, 39.0–52.5)	V2		332.06	332.20		333	63	69					195	332.12
10R-3 (Piece 1A, 48.0–60.0)	V3		332.15	332.27		331	61	68					195	332.21
10R-3 (Piece 1A, 71.0–87.0)	V4		332.38	332.54		331	61	68					195	332.46
10R-3 (Piece 1A, 86.5–100.0)	V5		332.54	332.67		329	59	66	332.31	19	24		195	332.60
10R-3 (Piece 1A, 92.0–94.0)	V6		332.59	332.61		180	270	26	332.60	264	10		195	332.60
10R-3 (Piece 1B, 93.0–95.0)	V7		332.60	332.62		180	270	26					195	332.61
10R-3 (Piece 1B, 110.5–123.0)	V8		**332.78**	**332.90**		**335**	**65**	**66**					195	332.84
10R-3 (Piece 1B, 119.0–131.0)	V9		**332.86**	**332.98**		**335**	**65**	**66**					195	332.92
10R-3 (Piece 1B, 122.0–133.0)	V10		**332.89**	**333.00**		**335**	**65**	**66**	**333.10**	**260**	**60**	195	195	332.95
		333.00												
10R-4 (Piece 2A, 17.0–27.0)	V1		**333.20**	**333.30**		**331**	**61**	**64**					199	333.25
10R-4 (Piece 2A, 37.0–37.0)	V2		333.40	333.40		180	90	5	333.85	5	18		199	333.40
10R-4 (Piece 2B, 35.0–43.5)	V3		333.38	333.47		331	61	64	334.03	229	14		199	333.42
10R-4 (Piece 2B, 75.0–81.0)	V4		333.78	333.84		180	90	55					199	333.81
10R-4 (Piece 2C, 80.0–85.0)	V5		333.83	333.88		8	98	55					199	333.85
10R-4 (Piece 2C, 98.5–107.0)	V6		334.02	334.10		24	114	60					199	334.05
10R-4 (Piece 2C, 117.0–120.5)	V7		334.20	334.24		0	90	45	334.16	237	40		199	334.22
		334.00			2.99									
									334.29	270	14			
11R-1 (Piece 1A, 0.0–4.0)	V1		**334.25**	**334.29**		**168**	**258**	**46**	**334.58**	**54**	**44**	–204	69	334.27
11R-1 (Piece 1A, 13.0–19.0)	V2		**334.38**	**334.44**		**310**	**40**	**57**	**334.60**	**213**	**43**	172	69	334.41
11R-1 (Piece 1A, 16.5–22.0)	V3		**334.42**	**334.47**		**310**	**40**	**57**	**334.55**	**240**	**58**	200	69	334.44
11R-1 (Piece 1A, 49.5–55.0)	V4		334.75	334.80		345	75	51					69	334.77
11R-1 (Piece 1B, 63.0–69.5)	V6		334.88	334.95		325	55	56					69	334.91
11R-1 (Piece 1B, 69.0–74.5)	V7		334.94	335.00		325	55	56	334.81	233	15		69	334.97
11R-1 (Piece 1B, 87.0–91.0)	V8		335.12	335.16		298	28	59	335.45	74	68		69	335.14
11R-1 (Piece 1B, 106.5–108.0)	V9		335.32	335.33		125	215	22					69	335.32
11R-1 (Piece 1B, 123.0–127.5)	V10		**335.48**	**335.53**		**21**	**111**	**42**	**335.68**	**218**	**47**	107	69	335.50
		336.00												
11R-2 (Piece 1A, 4.0–9.0)	V1		**335.70**	**335.75**		**66**	**156**	**59**	**336.29**	**43**	**54**	–114	–114	335.75
11R-2 (Piece 1A, 52.0–65.0)	V2		336.18	336.31		180	270	62					–114	336.24
11R-2 (Piece 1A, 58.5–63.0)	V3		336.25	336.29		224	314	44					–114	336.27
11R-2 (Piece 1A, 84.0–91.0)	V5		336.50	336.57		122	212	62	336.83	231	19		–114	336.53
11R-2 (Piece 1A, 114.0–120.0)	V6		336.80	336.86		163	253	51					–114	336.83
		337.00												
11R-3 (Piece 1A, 1.0–4.0)	V1		336.90	336.93		180	270	50	336.83	231	19		–15	336.92
11R-3 (Piece 1A, 4.0–9.0)	V2		336.93	336.98		180	270	45	336.99	250	13		–15	336.95
11R-3 (Piece 1A, 10.0–15.0)	V3		336.99	337.04		180	270	45	337.12	280	12		–15	337.02
11R-3 (Piece 1A, 13.0–19.0)	V4		337.02	337.08		180	270	45	337.17	289	12		–15	337.05
11R-3 (Piece 1A, 38.0–46.0)	V5		337.27	337.35		180	270	45	337.46	301	6		–15	337.31
11R-3 (Piece 1A, 47.0–52.0)	V6		337.36	337.41		180	270	39	337.80	0	52		–15	337.38
11R-3 (Piece 1, 54.0–60.0)	V7		337.43	337.49		180	270	51	337.91	342	19		–15	337.46

Table T1 (continued).

Core, section, piece, interval (cm)	Identifier*	1 Core data: Depth: Corrected depth of section top (mbsf)	2 Core data: Depth: Depth of top of structure (mbsf)	3 Core data: Depth: Depth of bottom of structure (mbsf)	4 Core data: Depth: Depth error of core (m)	5 Core data: Real and calculated: Strike (°)	6 Core data: Real and calculated: Dip direction (°)	7 Core data: Real and calculated: Dip angle (°)	8 FMS/UBI data: Depth (m)	9 FMS/UBI data: Dip direction (°)	10 FMS/UBI data: Dip angle (°)	11 Rotation: Calculated rotation angle (Δ°)	12 Rotation: Utilized rotation angle (Δ°)	13 Reoriented structures: Average depth (mbsf)
11R-3 (Piece 1, 76.0–80.0)	V8		337.65	337.69		176	266	50	338.65	167	10		–15	337.67
11R-3 (Piece 1, 78.5–85.0)	SV9		337.68	337.74		180	90	50					–15	337.70
11R-3 (Piece 1, 80.0–86.0)	V10		**337.69**	**337.75**		**180**	**90**	**50**	**339.56**	**76**	**78**	–15	–15	337.72
11R-3 (Piece 1, 83.0–84.5)	V11		337.72	337.74		180	270	28					–15	337.73
11R-3 (Piece 1, 86.0–90.0)	J1		337.75	337.79		135	225	41					–15	337.77
11R-3 (Piece 1, 97.0–97.5)	J2		337.86	337.87		67	157	15					–15	337.86
11R-3 (Piece 1, 89.0–93.0)	V12		337.78	337.82		186	276	34	339.24	275	27		–15	337.80
11R-3 (Piece 1, 102.0–102.5)	J3		337.91	337.92		\	\	0					–15	337.91
11R-3 (Piece 1, 102.5–102.0)	V15		337.92	337.91		215	305	49	339.70	208	23		–15	337.91
11R-3 (Piece 1, 106.5–110.0)	V16		337.96	337.99		100	10	75					–15	337.97
		338.00												
11R-4 (Piece 1, 0.0–7.0)	V1		337.99	338.06		350	80	60					206	338.02
11R-4 (Piece 1, 2.0–22.0)	V2		**338.01**	**338.21**		**45**	**135**	**76**	**339.94**	**341**	**79**	206	206	338.11
11R-4 (Piece 1, 18.5–22.0)	V3		338.18	338.21		331	61	40					206	338.19
11R-4 (Piece 1, 29.5–35.0)	V4		338.29	338.34		324	54	51					206	338.31
11R-4 (Piece 1B, 60.0–72.0)	F1		338.59	338.71		180	270	67					206	338.65
11R-4 (Piece 1B, 62.0–66.0)	V5		338.61	338.65		304	34	49					206	338.63
11R-4 (Piece 1C, 80.0–84.0)	V6		338.79	338.83		314	44	55					206	338.81
11R-4 (Piece 1C, 104.5–105.5)	V7		339.04	339.05		345	75	54					206	339.04
		339.00												
11R-5 (Piece 1, 0.0–2.0)	V1		339.09	339.11		175	265	25					–209	339.10
11R-5 (Piece 1, 7.0–12.0)	V2		**339.16**	**339.21**		**174**	**264**	**60**	**341.14**	**56**	**64**	–209	–209	339.18
11R-5 (Piece 1, 10.0–18.0)	V3		339.19	339.27		174	264	60					–209	339.23
11R-5 (Piece 1, 44.0–38.0)	V4		339.53	339.47		174	264	60					–209	339.50
11R-5 (Piece 1, 72.0–80.0)	V5		339.81	339.89		174	264	60					–209	339.84
11R-5 (Piece 1, 77.0–83.0)	V6		339.86	339.92		174	264	60					–209	339.89
11R-5 (Piece 1, 95.0–101.0)	V8		340.04	340.10		174	264	60	341.32	245	74		–209	340.07
11R-5 (Piece 1, 80.0–86.0)	V7		339.89	339.95		174	264	60	341.70	201	29		–209	339.92
11R-5 (Piece 2A, 107.0–111.0)	V2		340.16	340.20		350	80	38	342.41	18	4		228	340.18
11R-5 (Piece 2B, 121.0–121.0)	V5		340.30	340.30		244	334	11					228	340.30
11R-5 (Piece 2B, 138.0–142.0)	V6		**340.47**	**340.51**		**337**	**67**	**34**	**342.57**	**296**	**33**	.	228	340.49
		344.00			0									
12R-1 (Piece 1A, 21.0–22.5)	V1		343.76	343.78		7	97	12					98	343.77
12R-1 (Piece 1A, 26.5–28.0)	V2		343.82	343.83		190	280	4					98	343.82
12R-1 (Piece 1A, 28.0–34.0)	V3		343.83	343.89		182	272	47					98	343.86
12R-1 (Piece 1A, 27.0–29.0)	V4		**343.82**	**343.84**		**213**	**303**	**70**	**343.22**	**41**	**78**	98	98	343.83
12R-1 (Piece 1B, 42.0–43.0)	V5		343.97	343.98		180	270	5					98	343.97
12R-1 (Piece 1C, 47.5–48.0)	V6		344.03	344.03		90	180	22	343.59	17	51		98	344.04
12R-1 (Piece 1C, 91.0–92.5)	V7		344.46	344.48		21	111	21					98	344.47
12R-1 (Piece 1C, 95.0–95.5)	V8		344.50	344.51		19	109	15	344.60	140	56		98	344.50
12R-1 (Piece 1C, 116.0–116.0)	V10		344.71	344.71		297	27	7	344.92	174	19		98	344.71
12R-1 (Piece 1D, 141.0–142.0)	V11		344.96	344.97		26	116	22					98	344.69
		345.00												
12R-2 (Piece 1A, 13.0–13.5)	V3		345.15	345.16		90	0	6					–166	345.15
12R-2 (Piece 1B, 38.0–40.5)	V6		345.40	345.43		194	284	21					–166	345.41
12R-2 (Piece 1B, 50.5–51.0)	V9		345.53	345.53		229	319	11					–166	345.53
12R-2 (Piece 1B, 58.0–58.0)	V10		345.60	345.60		79	169	53					–166	345.60
12R-2 (Piece 1C, 61.5–63.0)	V11		345.64	345.65		230	320	18					–166	345.64
12R-2 (Piece 1C, 71.0–71.5)	V12		345.73	345.74		254	344	15					–166	345.73
12R-2 (Piece 1C, 81.5–82.0)	V13		345.84	345.84		180	270	4					–166	345.84
12R-2 (Piece 1D, 93.0–128.5)	SV14		345.95	346.31		185	275	82					–166	346.13
12R-2 (Piece 1D, 94.0–102.0)	V15		**345.96**	**346.04**		**67**	**157**	**76**	**346.25**	**351**	**74**	–166	–166	346.00
12R-2 (Piece 1E, 109.0–109.5)	V16		346.11	346.12		115	205	16					–166	346.11
12R-2 (Piece 1E, 113.5–113.5)	J1		346.16	346.16		\	\	0					–166	346.15

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth												
						Real and calculated			FMS/UBI data			Rotation		Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
		346.00												
12R-3 (Piece 1, 1.0–7.5)	SV1		**346.33**	**346.40**		**183**	**273**	**74**	**346.72**	**99**	**68**	–174	–174	346.36
12R-3 (Piece 2A, 38.5–40.0)	V1		346.71	346.72		160		9						
12R-3 (Piece 2B, 74.5–76.0)	V2		347.07	347.08		180		20						
12R-3 (Piece 2C, 82.5–83.0)	V3		347.15	347.15		284		21						
12R-3 (Piece 2D, 101.0–105.5)	V4		347.33	347.38		68		55						
12R-3 (Piece 2D, 105.5–107.5)	V5		347.38	347.40		233		37						
12R-3 (Piece 2D, 109.0–109.5)	V6		347.41	347.42		211		15						
12R-3 (Piece 2F, 138.0–144.0)	V7		347.70	347.76		312		61						
12R-3 (Piece 2F, 139.0–141.0)	V8		347.71	347.73		128		66						
		347.77												
12R-4 (Piece 2A, 79.0–79.0)	V2		348.56	348.56		90		2						
12R-4 (Piece 2B, 92.0–96.0)	V3		348.69	348.73		180		40						
		348.73												
12R-5 (Piece 1A, 1.0–3.0)	V1		348.74	348.76		280		45						
12R-5 (Piece 1A, 66.5–69.0)	V2		349.40	349.42		159		16						
12R-5 (Piece 1B, 73.0–86.0)	SV4		349.46	349.59		225		77						
12R-5 (Piece 1B, 74.0–78.0)	V3		349.47	349.51		31		6						
12R-5 (Piece 1C, 95.5–100.0)	V5		349.69	349.73		5		29						
12R-5 (Piece 1D, 114.5–116.0)	V6		349.88	349.89		167		82						
12R-5 (Piece 1D, 106.0–114.0)	V7		349.79	349.87		27		66						
12R-5 (Piece 1D, 114.0–117.0)	V8		349.87	349.90		33		47						
12R-5 (Piece 1D, 100.0–131.0)	V9		349.73	350.04		40		70						
12R-5 (Piece 1D, 130.5–133.0)	V10		350.04	350.06		135		33						
12R-5 (Piece 1D, 122.0–131.5)	V11		349.95	350.05		220		78						
12R-5 (Piece 1D, 129.0–142.0)	V12		350.02	350.15		15		74						
12R-5 (Piece 1F, 141.5–142.5)	V13		350.15	350.16		238		19						
12R-5 (Piece 1F, 140.0–142.0)	V14		350.13	350.15		33		68						
		350.18												
12R-6 (Piece 1A, 0.0–1.5)	V1		350.18	350.20		353		14						
12R-6 (Piece 1A, 1.5–3.0)	V2		350.20	350.21		16		15						
12R-6 (Piece 1A, 5.0–18.0)	V3		350.23	350.36		248		85						
12R-6 (Piece 1A, 13.5–15.5)	V4		350.32	350.34		313		21						
12R-6 (Piece 1B, 68.5–71.0)	V5		350.87	350.89		233		49						
12R-6 (Piece 1B, 93.0–93.5)	V6		351.11	351.12		344		7						
12R-6 (Piece 1B, 101.5–105.0)	V7		351.20	351.23		215		55						
12R-6 (Piece 1B, 112.5–127.0)	V8		351.31	351.45		172		65						
		351.46												
12R-7 (Piece 1A, 5.5–7.0)	V1		351.52	351.53		87		65						
12R-7 (Piece 1A, 47.0–51.0)	V2		351.93	351.97		65		47						
12R-7 (Piece 1B, 81.5–82.0)	V3		352.28	352.28		76		12						
12R-7 (Piece 1C, 107.5–108.5)	V4		352.54	352.55		267		75						
12R-7 (Piece 1C, 102.0–114.0)	V5		352.48	352.60		175		60						
12R-7 (Piece 1C, 100.0–125.0)	V6		352.46	352.71		195		84						
12R-7 (Piece 1D, 108.0–109.0)	V8		352.54	352.55		349		25						
12R-7 (Piece 1D, 113.5–114.5)	V9		352.60	352.61		46		35						
12R-7 (Piece 1D, 119.0–122.0)	V10		352.65	352.68		34		24						
12R-7 (Piece 1E, 122.5–125.0)	V11		352.69	352.71		57		18						
12R-7 (Piece 1F, 133.0–134.0)	V12		352.79	352.80		220		25						
12R-7 (Piece 1C, 91.0–98.0)	V13		352.37	352.44		90		85						
12R-7 (Piece 1F, 133.5–134.0)	V14		352.80	352.80		70		40						
		352.85												
12R-8 (Piece 1A, 0.0–3.0)	V1		352.85	352.88		187		45						
12R-8 (Piece 1A, 1.0–2.5)	V12		352.86	352.88		126		60						

Table T1 (continued).

		1	2	3	4	5	6	7	8	9	10	11	12	13
		Core data												
		Depth				Real and calculated			FMS/UBI data			Rotation		Reoriented structures
Core, section, piece, interval (cm)	Identifier*	Corrected depth of section top (mbsf)	Depth of top of structure (mbsf)	Depth of bottom of structure (mbsf)	Depth error of core (m)	Strike (°)	Dip direction (°)	Dip angle (°)	Depth (m)	Dip direction (°)	Dip angle (°)	Calculated rotation angle (Δ°)	Utilized rotation angle (Δ°)	Average depth (mbsf)
12R-8 (Piece 1A, 20.5–22.5)	V3		353.06	353.08		164		21						
12R-8 (Piece 1A, 23.0–23.5)	V4		353.08	353.09		90		47						
12R-8 (Piece 1B, 24.0–26.0)	V5		353.09	353.11		198		19						
12R-8 (Piece 1B, 28.0–32.0)	V6		353.13	353.17		194		49						
12R-8 (Piece 1B, 28.0–28.0)	V16		353.13	353.13		90		54						
12R-8 (Piece 1C, 35.5–36.0)	V7		353.21	353.21		180		10						
12R-8 (Piece 1D, 51.0–52.0)	V8		353.36	353.37		210		8						
12R-8 (Piece 1D, 60.0–65.0)	V10		353.45	353.50		0		40						
12R-8 (Piece 1E, 51.0–65.0)	V9		353.36	353.50		172		64						
12R-8 (Piece 1E, 66.0–66.0)	V11		353.51	353.51		90		42						
12R-8 (Piece 1F, 71.0–71.0)	V12		353.56	353.56		90		10						
12R-8 (Piece 1F, 80.0–83.0)	V13		353.65	353.68		180		35						
12R-8 (Piece 1G, 81.0–90.0)	V14		353.66	353.75		341		71						
12R-8 (Piece 1G, 87.0–93.5)	V15		353.72	353.79		20		64						
12R-8 (Piece 1D, 64.0–66.0)	V16		353.49	353.51		312		35						

Notes: * = the measured structural feature; V = vein, SV = shear vein, J = joint, F = microfault. Column 1 = depth (mbsf) of core section top corrected according to the procedure described in the text (see **"Results,"** p. 5). Column 2 = depth (mbsf) of the top of the measured structure, obtained by adding the distance (cm) from top of section to top of the feature to the corrected top section depth (column 1). Column 3 = depth (mbsf) of the bottom of the measured structure, obtained by adding the distance (cm) from top of section to bottom of the feature to the corrected top section depth (column 1). Column 4 = error (m) of the core depth when compared with curated depth and obtained with the procedure described in the text (see **"Results,"** p. 5). Column 5 = real and calculated (from two apparent values) strike of measured structure. Column 6 = real and calculated (from two apparent values) dip direction of measured structure. Column 7 = real and calculated (from two apparent values) dip angle of measured structure. Column 8 = depth of the structural feature recognized on Formation MicroScanner (FMS) and Ultrasonic Borehole Imager (UBI) images. Column 9 = dip direction of the structural feature recognized on FMS and UBI images. Column 10 = dip angle of the structural feature recognized on FMS and UBI images. Column 11 = calculated correction angle (difference between dip direction of the structure in the core and in the oriented log images). Column 12 = correction angle actually utilized to re-orient the core structures; it corresponds to the structure with the highest dip angle in a core piece, or to the mean between two correction angles if dip angles of structures are comparable. Column 13 = average depth of the reoriented structures. Column headers are also defined in the text (see **"Results,"** p. 5). Bold = core data to be reoriented first because quite comparable with FMS and UBI data. \ = not defined in horizontal planar structures.