Century WIRELINE SERVICES

DIPMETER ANALYSIS

DHGH-14-15

COMPANY	ATNUZ COAL
FIELD	GROUNDHOG
COUNTRY	CANADA
PROVINCE	SASKATCHEWAN
LOC	SECTION
TOWNSHIP	N/A
LATITUDE DD	N/A
LONGITUDE DD	N/A
GROUND LEVEL	N/A
ELEVATION KB	N/A
ELEVATION GF	N/A
ELEVATION DL	N/A
DRILLMEASURED FROM DL	
LOG MEASURED FROM DL	
PERMANENT DATUM	
DEPTH DRILLER	9430
BIT SIZE	9 7/8
LOG TOP	2'4
LOG BOTTOM	9'35
CASING DRILLER	3'048
CASING LOGGER	3'048
BOTTOM LOGGED INTERVAL	3'048
RM@ TEMPERATURE	N/A
WATER SALINITY	
RM@ MEASURED @	
RMF@ MEASURED @	
RMC@ MEASURED @	
SOURCE OF SAMPLE	
RM@ AT BHT	1.00
TIME SINCE CIRC	1:00
MAX REC TEMP	N/A
EQUIP LOCATION	4 HWY
RECORDED BY	
WITNESSED BY	N/A

DENSITY SONIC

ARRIVAL TIME 9430

DEPARTURE TIME 730

CORE SHOTHOLE N/A

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

FORMATION DIPMETER 1:200 DHGH-14-15 06/16/14

LOG PARAMETERS

MATRIX DENSITY : 2.65	NEUTRON MATRIX : SANDSTONE	MATRIX DELTA T : 177
MAGNETIC DECL. : 19.5	ELECT. CUTOFF : 75000	BIT SIZE : 9.8
PRESENTATION NAME/DATE =	Atrum_9411_(200 scale):0 06/12/2014	VERSION = 3.64KX

BIT_SIZE	METERS	CUR4	
50 MM 250		-10 UA 12	
CALIPER2	SPEED->	CUR3	
50 MM 250		-7 UA 15	
CALIPER1		CUR2	ROSE
50 MM 250		-4 UA 18	DEG
GAMMA		CUR1	TADPOLE CORR
0 API-GR 150	10	-1 UA 21	0 DEG 90 0 PERCENT 100
	15		
	20		
	25		
	30		
	35		
	40		
	45		
0 API-GR 150	50	-1 UA 21	0 DEG 90 0 PERCENT 100
GAMMA		CUR1	TADPOLE CORR
50 MM 250		-4 UA 18	DEG
CALIPER1		CUR2	ROSE
50 MM 250	SPEED->	-7 UA 15	
CALIPER2		CUR3	
50 MM 250		-10 UA 12	
BIT_SIZE	METERS	CUR4	

FORMATION DIPMETER 1:200 DHGH-14-15 06/16/14

LOG PARAMETERS

MATRIX DENSITY : 2.65	NEUTRON MATRIX : SANDSTONE	MATRIX DELTA T : 177
MAGNETIC DECL. : 19.5	ELECT. CUTOFF : 75000	BIT SIZE : 9.8
PRESENTATION NAME/DATE =	Atrum_9411_(200 scale):0 06/12/2014	VERSION = 3.64KX

FORMATION DIPMETER 1:100 DHGH-14-15 06/16/14

LOG PARAMETERS

MATRIX DENSITY : 2.65	NEUTRON MATRIX : SANDSTONE	MATRIX DELTA T : 177
MAGNETIC DECL. : 19.5	ELECT. CUTOFF : 75000	BIT SIZE : 9.8
PRESENTATION NAME/DATE =	Atrum_9411_(100 scale):0 06/12/2014	VERSION = 3.64KX

BIT_SIZE	METERS	CUR4	
50 MM 250		-10 UA 12	
CALIPER2	SPEED->	CUR3	
50 MM 250		-7 UA 15	
CALIPER1		CUR2	ROSE
50 MM 250		-4 UA 18	DEG
GAMMA		CUR1	TADPOLE CORR
0 API-GR 150	10	-1 UA 21	0 DEG 90 0 PERCENT 100
	15		
	20		
	25		
	30		
	35		
	40		
	45		
0 API-GR 150	50	-1 UA 21	0 DEG 90 0 PERCENT 100
GAMMA		CUR1	TADPOLE CORR
50 MM 250		-4 UA 18	DEG
CALIPER1		CUR2	ROSE
50 MM 250	SPEED->	-7 UA 15	
CALIPER2		CUR3	
50 MM 250		-10 UA 12	
BIT_SIZE	METERS	CUR4	

FORMATION DIPMETER 1:100 DHGH-14-15 06/16/14

LOG PARAMETERS

MATRIX DENSITY : 2.65	NEUTRON MATRIX : SANDSTONE	MATRIX DELTA T : 177
MAGNETIC DECL. : 19.5	ELECT. CUTOFF : 75000	BIT SIZE : 9.8
PRESENTATION NAME/DATE =	Atrum_9411_(100 scale):0 06/12/2014	VERSION = 3.64KX

TOOL CALIBRATION DHGH-14-15 06/16/14 22:50
TOOL 9411A TM VERSION 6
SERIAL NUMBER 4504

	DATE	TIME	SENSOR	STANDARD		RESPONSE	
1	Sep04,13	17:17:51	GAMMA	0.100	[API-GR]	0.000	[CPS]
	Sep04,13	17:17:51	GAMMA	545.000	[API-GR]	519.000	[CPS]
2	May04,10	13:04:32	VOLTAGE	50.000	[MV]	400.000	[CPS]
	May04,10	13:04:32	VOLTAG	280.000	[MV]	1900.000	[CPS]
3	Jan13,14	09:54:46	CUR1	5.580	[UA]	8180.000	[CPS]
	Jan13,14	09:54:46	CUR1	13.250	[UA]	22864.000	[CPS]
4	Jan13,14	09:54:56	CUR2	5.580	[UA]	9045.000	[CPS]
	Jan13,14	09:54:56	CUR2	13.250	[UA]	22151.000	[CPS]
5	Jan13,14	09:55:08	CUR3	5.580	[UA]	8711.000	[CPS]
	Jan13,14	09:55:08	CUR3	13.250	[UA]	21601.000	[CPS]
6	Jan13,14	09:55:14	CUR4	5.580	[UA]	8241.000	[CPS]
	Jan13,14	09:55:14	CUR4	13.250	[UA]	23064.000	[CPS]
7	Dec07,13	21:40:24	CALIPER	100.000	[INCH]	5085.000	[CPS]
	Dec07,13	21:40:24	CALIPER	152.000	[INCH]	6983.000	[CPS]
8	Dec07,13	21:40:54	CALIPER	100.000	[INCH]	3877.000	[CPS]
	Dec07,13	21:40:54	CALIPER	152.000	[INCH]	5952.000	[CPS]