



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

Alaska Geologic Materials Center *Data Report No. 386*

No. 386

Talisman Energy Inc. 2011, Porosity, permeability, and grain density core analysis results from the FEX Limited Partnership Aklaq #6 well and white light and ultra-violet photography of the FEX Limited Partnership Aklaq #2, Aklaq #6, and Aklaqyaak #1 wells

Received April, 2011

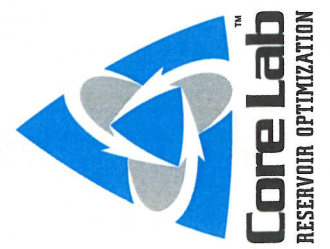
All data reports may be downloaded free of charge from the [DGGs website](#).

CORE ANALYSIS REPORT
FOR

TALISMAN ENERGY INC.

TALISMAN F.E.X. AKLAQ #6

AKLAQ #6 , ALASKA



CORE LABORATORIES

CORE ANALYSIS REPORT
FOR

TALISMAN ENERGY INC.

TALISMAN F.E.X. AKLAQ #6

AKLAQ #6 , ALASKA

THESE ANALYSES, OPINIONS OR INTERPRETATIONS ARE BASED ON OBSERVATIONS AND MATERIALS SUPPLIED BY THE CLIENT TO WHOM; AND FOR WHOSE EXCLUSIVE AND CONFIDENTIAL USE; THIS REPORT IS MADE. THE INTERPRETATIONS OR OPINIONS EXPRESSED REPRESENT THE BEST JUDGEMENT OF CORE LABORATORIES (ALL ERRORS AND OMISSIONS EXCEPTED); BUT CORE LABORATORIES AND ITS OFFICERS AND EMPLOYEES, ASSUME NO RESPONSIBILITY AND MAKE NO WARRANTY OR REPRESENTATIONS, AS TO THE PRODUCTIVITY, PROPER OPERATIONS, OR PROFITABILITY OF ANY OIL, GAS OR MINERAL WELL OR FORMATION IN CONNECTION WITH WHICH SUCH REPORT IS USED OR RELIED UPON. CORE LABORATORIES IS COMMITTED TO CUSTOMER SATISFACTION AND WELCOMES YOUR FEEDBACK. YOU CAN E-MAIL THE GENERAL MANAGER WITH YOUR COMMENTS AT ATPSCANADA.FEEDBACK@CORELAB.COM.



June 11, 2007

Talisman Energy Inc.
3400, 888 – 3rd Street S.W.
Calgary, Alberta T2P 5C5

Attention: Mr. Jason Lavigne

Subject: TALISMAN F. E. X. AKLAQ #6
Our File Number: 52131-07-0150

Petroleum Services Division
Core Laboratories Canada, Ltd.
2810 - 12 Street N.E.
Calgary, Alberta, Canada T2E 7P7
Tel: (403) 250-4000
Fax: (403) 250-5120
www.corelab.com

Diamond coring equipment and water base mud were used to core the subject well. The core was boxed at the wellsite and transported to our Calgary laboratory.

Prior to analysis, spectral gamma ray activity was measured.

1. Conventional, Plug Type Analysis (Humidity Dried)

Thirty-six samples (38.1 mm diameter) were drilled from the bulk core using water. The samples were dried in a humidity oven at 60° Celsius and 50% relative humidity. Analysis includes porosity by Boyle's Law technique using helium as the gaseous medium and horizontal permeability to air.

The results of these analyses are reported in both tabular and graphical form.

Samples outside the 95% confidence interval (three standard deviations) on the Permeability X Porosity crossplot have been identified and have been checked and re-analyzed to ensure data integrity.

As a guide to evaluation and correlation with other data, statistics with tabulated cut-off ranges and plots are also presented herein.

The 1/3 slabbed portion of the core material was photographed and six sets of white light and ultraviolet light, 216 mm X 280 mm photographs and six compact disks will be forwarded to your office under a separate cover.

Thank you for the opportunity to be of service.

Yours truly,

CORE LABORATORIES CANADA, LTD.

David J. Brooks
Supervisor, Routine Rock Properties

DJB/wz
enclosures

CORE LABORATORIES

Company : TALISMAN ENERGY INC. File No. : 52131-07-0150
 Well : TALISMAN F.E.X. AKLAQ #6 Formation :
 Location : Coring Equip : DIAMOND Analysts : DJB
 Province : ALASKA Coring Fluid : WATER BASE MUD Core Dia : 4 inch

CORE ANALYSIS RESULTS

SAMPLE NUMBER	TOP DEPTH ft	BOTTOM DEPTH ft	SPOT DEPTH ft	INTVL REP ft	HUMIDITY DRIED PERM mD	CAPACITY (MAXIMUM) Kair md-ft	HUMIDITY DRIED POROSITY %	CAPACITY (HELIUM) ø-ft	HUMIDITY DRIED BULK DENSITY	HUMIDITY DRIED GRAIN DENSITY (gm/cc)	DESCRIPTION
CORE NO.1 7125.0 - 7161.4 ft (CORE RECEIVED 36.4 ft) (12 BOXES)											
SPH 1A	7125.0	7125.5	7125.3	0.5	0.06	0.03	16.8	8.4	2.27	2.73	ss vff dol
SPH 1B	7125.5	7126.0	7125.7	0.5	0.07	0.04	17.7	8.9	2.23	2.71	ss vff dol
SPH 1	7126.0	7127.1	7126.4	1.1	0.13	0.14	19.0	20.9	2.21	2.73	ss vff dol lam
SPH 2	7127.1	7128.0	7127.3	0.9	0.17	0.15	19.4	17.5	2.19	2.72	ss vff dol lam
SPH 3	7128.0	7129.0	7128.2	1.0	0.17	0.17	19.3	19.3	2.2	2.72	ss vff dol lam
SPH 4	7129.0	7130.1	7129.1	1.1	0.12	0.13	18.2	20.0	2.33	2.85	ss vff dol sid lam
SPH 5	7130.1	7130.6	7130.2	0.5	0.04	0.02	14.0	7.0	2.38	2.77	ss vff dol sid lam
SPH 6	7130.6	7131.0	7130.8	0.4	<.01		11.5	4.6	2.47	2.79	ss vff dol sid lam
SPH 7	7131.0	7132.7	7132.1	1.7	0.02	0.03	10.0	17.0	2.53	2.81	ss vff dol glauc lam
SPH 8	7132.7	7134.1	7133.0	1.4	<.01		4.4	6.2	2.67	2.79	ss vff dol glauc sid lam
SPH 9	7134.1	7134.7	7134.0	0.6	<.01		8.7	5.2	2.57	2.81	ss vff dol glauc sid lam
SPH 10	7134.7	7135.8	7135.0	1.1	<.01		5.7	6.3	2.68	2.84	ss vff dol glauc sid lam
SPH 11	7135.8	7136.4	7135.9	0.6	<.01		7.9	4.7	2.84	3.08	ss vff dol glauc sid lam
SPH 12	7136.4	7137.1	7136.9	0.7	<.01		6.5	4.5	2.62	2.80	ss vff dol glauc sid lam
SPH 13	7137.1	7138.9	7138.0	1.8	<.01		10.9	19.6	2.7	3.03	ss vff dol glauc sid lam
SPH 14	7138.9	7140.1	7138.9	1.2	<.01		6.2	7.4	2.62	2.79	ss vff dol glauc sid lam
SPH 15	7140.1	7140.7	7140.2	0.6	0.01	0.01	8.4	5.0	2.53	2.76	ss vff dol glauc sid lam
SPH 16	7140.7	7141.9	7141.0	1.2	<.01		11.2	13.4	2.57	2.89	ss vff dol glauc sid lam
SPH 17	7141.9	7142.1	7141.8	0.2	<.01		10.0	2.0	2.48	2.76	ss vff dol glauc sid lam

CORE LABORATORIES

Company : TALISMAN ENERGY INC. File No. : 52131-07-0150
 Well : TALISMAN F.E.X. AKLAQ #6 Formation :
 Location : Coring Equip : DIAMOND Date : 2007-04-18
 Province : ALASKA Coring Fluid : WATER BASE MUD Analysts : DJB
 Core Dia : 4 inch

CORE ANALYSIS RESULTS

SAMPLE NUMBER	TOP DEPTH ft	BOTTOM DEPTH ft	SPOT DEPTH ft	INTVL REP ft	HUMIDITY DRIED PERM mD	CAPACITY (MAXIMUM) Kair md-ft	HUMIDITY DRIED POROSITY %	CAPACITY (HELIUM) ø-ft	HUMIDITY DRIED BULK DENSITY	HUMIDITY DRIED GRAIN DENSITY (gm/cc)	DESCRIPTION
P 2	7142.1	7143.1		1.0							PRESERVE 2
SPH 18	7143.1	7143.7	7143.2	0.6	<.01		10.2	6.1	2.45	2.73	ss vff dol glauc sid lam
SPH 19	7143.7	7144.9	7144.0	1.2	<.01		10.4	12.5	2.45	2.74	ss vff dol glauc sid lam
SPH 20	7144.9	7145.9	7145.2	1.0	<.01		9.5	9.5	2.52	2.78	ss vff dol glauc sid lam
SPH 21	7145.9	7146.6	7146.0	0.7	<.01		9.1	6.4	2.58	2.84	ss vff dol glauc sid lam
SPH 22	7146.6	7148.1	7146.9	1.5	<.01		2.9	4.4	3.24	3.34	ss vff dol glauc sid lam
SPH 23	7148.1	7149.0	7148.3	0.9	<.01		3.7	3.3	2.77	2.88	ss vff shy glauc sid lan
SPH 24	7149.0	7149.8	7149.0	0.8	<.01		5.0	4.0	2.83	2.98	ss vff shy dol glauc sid
SPH 25	7149.8	7150.8	7150.0	1.0	<.01		5.5	5.5	2.71	2.87	ss vff dol glauc sid lam
SPH 26	7150.8	7151.5	7151.2	0.7	<.01		7.9	5.5	2.81	3.05	ss vff dol sid lam
SPH 27	7151.5	7152.1	7151.9	0.6	<.01		9.2	5.5	3.05	3.36	ss vff sid lam
P 3	7152.1	7153.1		1.0							PRESERVE 3
SPH 28	7153.1	7153.8	7153.2	0.7	<.01		9.9	6.9	2.97	3.30	ss vff dol sid lam
SPH 29	7153.8	7154.5	7154.2	0.7	<.01		6.7	4.7	2.75	2.95	ss vff shy dol sid lam
SPH 30	7154.5	7155.4	7155.0	0.9	<.01		4.3	3.9	2.99	3.13	ss vff shy dol sid lam
SPH 31	7155.4	7157.1	7156.0	1.7	<.01		5.8	9.9	2.92	3.10	ss vff shy dol sid lam
SPH 32	7157.1	7157.9	7157.1	0.8	0.01	0.01	4.2	3.4	3.31	3.46	ss vff shy dol sid lam
SPH 33	7157.9	7158.5	7158.0	0.6	0.02	0.01	5.7	3.4	2.59	2.75	ss vff shy dol glauc sid
SPH 34	7158.5	7159.2	7158.9	0.7	<.01		2.7	1.9	2.57	2.64	ss vff v shy dol glauc li
SPH 35	7159.2	7160.1	7159.9	0.9	<.01		1.2	1.1	2.63	2.66	ss vff v shy dol glauc li
SPH 36	7160.1	7161.4	7161.0	1.3	<.01		3.7	4.8	2.58	2.68	ss vff shy dol glauc lan



CODE KEY - DESCRIPTIONS

ACA	= Removed for advanced core analysis	Is	= Limestone	SPH	= Humidity analysis of small plug sample at 60 degrees Celsius and 50 % relative humidity
anhy	= Anhydrite	Iv	= Large vug	SPP	= Small plug from preserved section of the core
arg	= Argillaceous	m	= Medium	SPT	= Small Plug used for tracer analysis
AST	= Appears similar to	mi	= Mud invaded	ss	= Sandstone
bit	= Bitumen	mv	= Medium vug	ssdy	= Slightly sandy (<20%)
bk	= Break	NA	= Not analyzed by request	sshy	= Slightly shaly (<20%)
c	= Coarse	NR	= Not received	sty	= Stylolite (ic)
calc	= Calcite (calcareous)	OB	= Overburden sample (permeability and porosity measured at net overburden stress)	sulf	= Sulphur
carb	= Carbonaceous			sv	= Small vug
cbl	= Cobble			TEC	= Thermal Extraction Chromatography to determine oil richness
cgl	= Conglomerate	ool	= Oolitic	TS	= Thin section
cht	= Chert	pbl	= Pebble	uncons	= Unconsolidated
coal	= Coal/coal inclusion	PFD	= Preliminary Full Diameter sample	vc	= Very coarse
coq	= Coquina	ppv	= Pinpoint vug	vf	= Very fine
dol	= Dolomite	PR	= Preserved for future studies	vfrac	= Vertical fracture
f	= Fine	PSA	= Particle size analysis	VIS	= Viscosity of oil measured
fc	= Filter cake on surface of core sample	PSP	= Preliminary Small Plug sample	VOB	= Vertical overburden sample (vertical permeability measured at net overburden stress)
FD	= Full diameter analysis including three directional permeabilities, porosity and densities	pyr	= Pyrite (pyritic)		
foss	= Fossil (fossiliferous)	pyrbit	= Pyrobitumen		
frac	= Fracture (undifferentiated)	ru	= Rubble		
fri	= Friable	SA	= Sieve analysis	vshy	= Very shaly (>40%)
glauc	= Glauconite (glauconitic)	sdv	= Sandy	VSP	= Vertical small plug drilled from whole core to measure vertical permeability (and occasionally porosity)
grnl	= Granule	SEM	= Scanning electron microscope analysis		
gyp	= Gypsum	sh	= Shale	vug	= Vuggy (vuggy)
hal	= Halite (salt)	shy	= Moderately shaly (20% - 40%)	ws	= Water sand
hfrac	= Horizontal fracture	sid	= Siderite	XRD	= X-ray diffraction
i	= Intercrystalline	slst	= Siltstone	*	= Data unavailable due to poor sample quality
IFD	= Inner Full Diameter (Full diameter sample is drilled from the bulk portion of the core in the vertical direction for permeability and porosity measurements)	sily	= Silty	10240	= Permeability >10 Darcies, (maximum routine permeability measurement)
incl	= Inclusions	SP	= Small plug (sample drilled from core in maximum horizontal direction and parallel to bedding plane where possible) permeability porosity, and grain density are measured (Prefix A) Horizontal matrix permeability measured by pressure decay profile permeametry through a probe tip due to sample quality		
lam	= Laminae (laminated)	SPA	=		

CORE LABORATORIES

Company :TALISMAN ENERGY INC.
Well :TALISMAN F.E.X. AKLAQ #6

Field :AKLAQ #6
Formation :

File No :52131-07-0150
Date :2007-04-18

TABLE 1

SUMMARY OF CORE DATA

ZONE AND CUTOFF DATA

ZONE:

Identification-----
Top Depth----- 7125.0 ft
Bottom Depth----- 7161.4 ft
Number of Samples----- 40

DATA TYPE:

Porosity----- (HELIUM)
Permeability----- (MAXIMUM) Kair

CUTOFFS:

Porosity(Minimum)----- 0.0 %
Porosity(Maximum)----- 100.0 %
Permeability(Minimum)----- 0.0000 md
Permeability(Maximum)----- 100000 md
Water Saturation(Maximum) -
Oil Saturation(Minimum)-----
Grain Density(Minimum)----- 2.0 gm/cc
Grain Density(Maximum)----- 3.0 gm/cc
Lithology Excludes----- NONE

CHARACTERISTICS REMAINING AFTER CUTOFFS

ZONE:

Number of Samples----- 29
Thickness Represented--- 25.1 ft

HUMIDITY DRIED POROSITY:

Storage Capacity----- 236.8 ϕ -ft
Arithmetic Average----- 9.4%
Minimum----- 1.2%
Maximum----- 19.4%
Median----- 9.1%
Standard Deviation----- $\pm 5.4\%$

HUMIDITY DRIED PERMEABILITY:

Flow Capacity----- 0.7 md-ft
Arithmetic Average----- 0.09 md
Geometric Average----- 0.06 md
Harmonic Average----- 0.04 md
Minimum----- 0.01 md
Maximum----- 0.17 md
Median----- 0.06 md
Standard Dev. (Geom)--- $K \cdot 10^{\pm 0.435}$ md

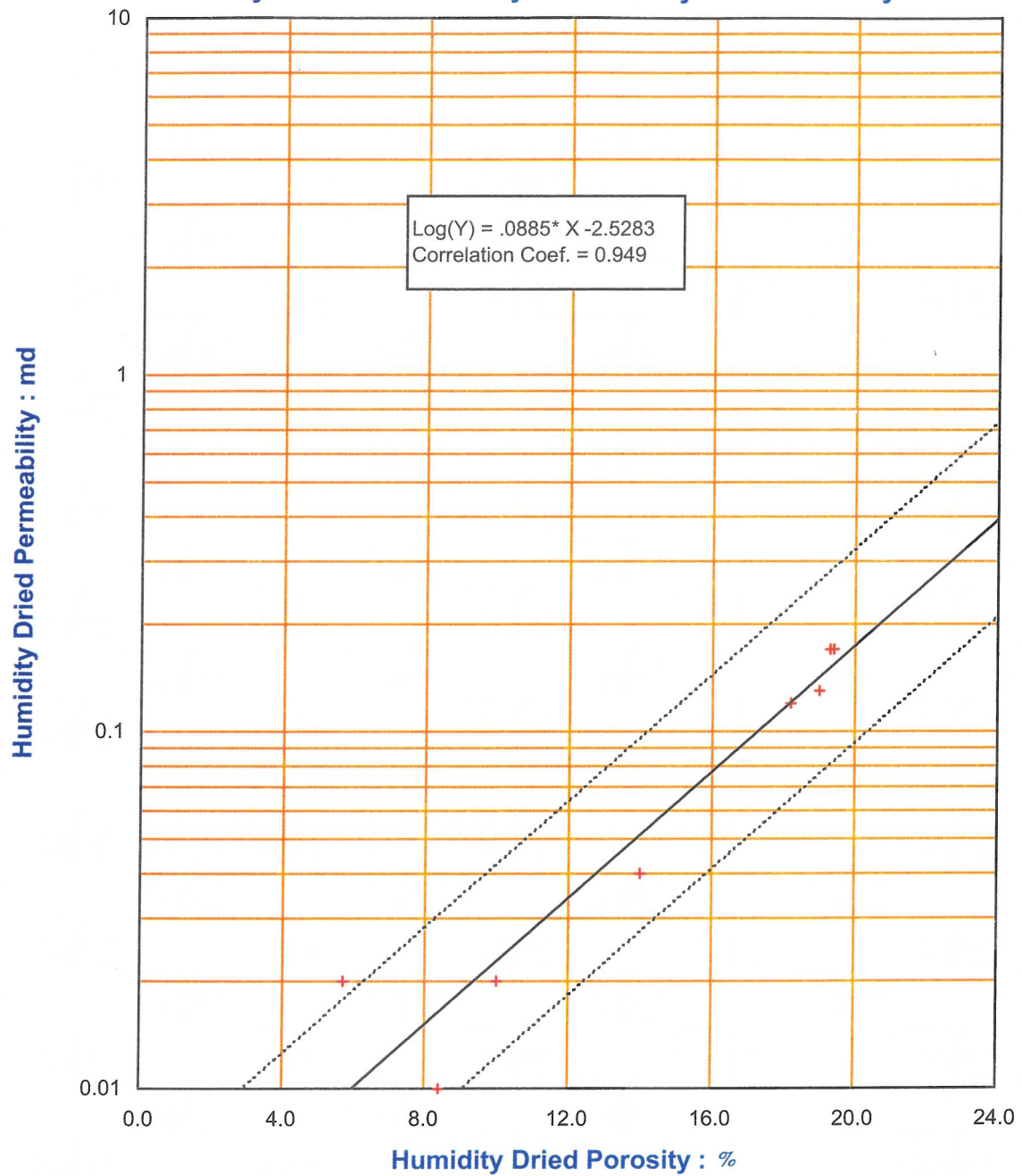
HETEROGENEITY(Permeability):

Dykstra-Parsons Var.-- 0.989
Lorenz Coefficient----- 0.112

AVERAGE SATURATION(Pore Volume):

Oil-----
Water-----

Humidity Dried Permeability vs Humidity Dried Porosity



TALISMAN ENERGY INC.

TALISMAN F.E.X. AKLAQ #6

AKLAQ #6

(7125.0 - 7161.4 ft)

Core Laboratories Canada Ltd.

- LEGEND -

CORE SPECTRAL GAMMA

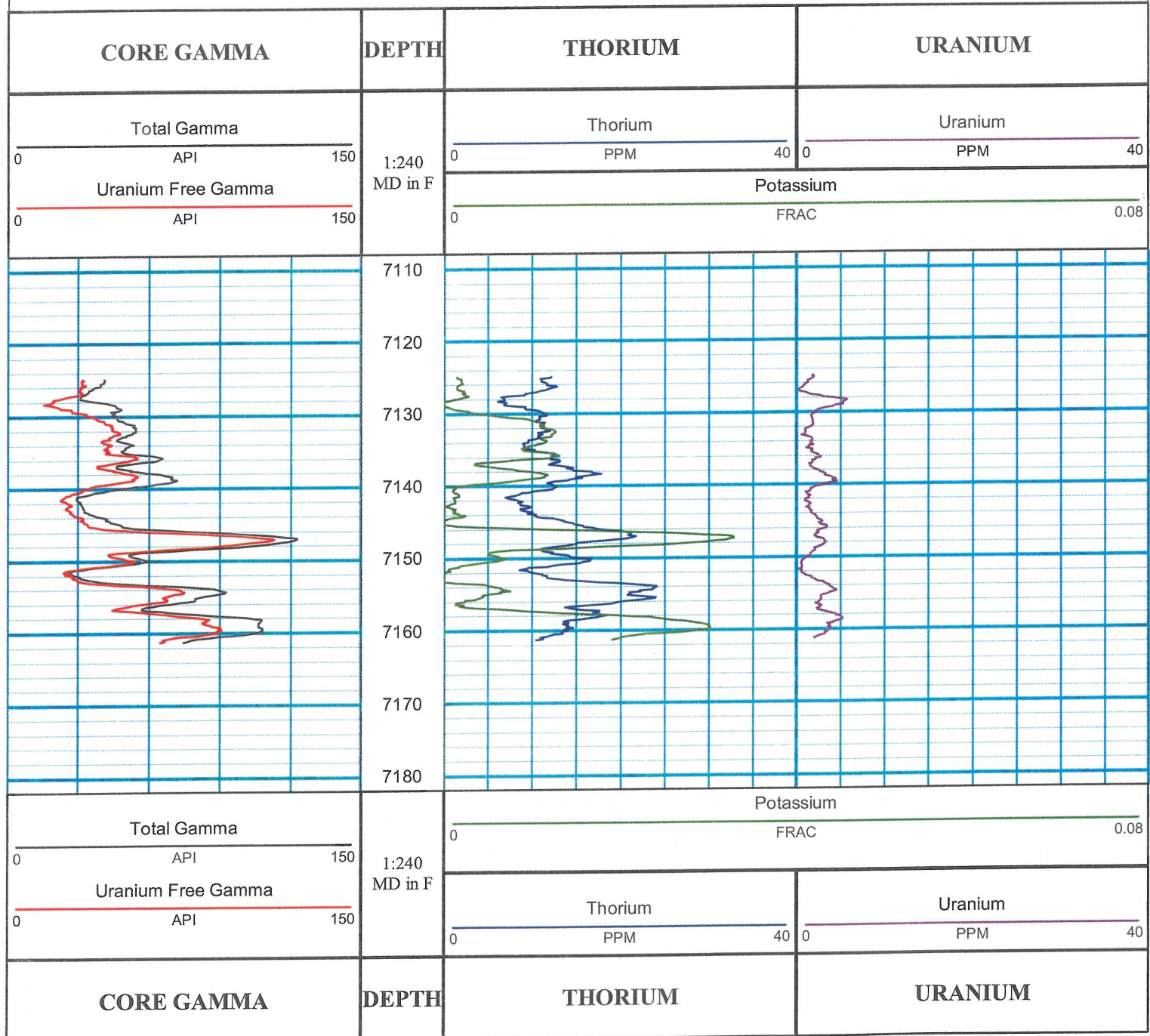
TALISMAN ENERGY INC.

TALISMAN F. E. X. AKLAQ #6

(7125.0 - 7161.4 ft)

5 inches - 100 feet

Core Laboratories Canada Ltd.



CORRELATION COREGRAPH

TALISMAN ENERGY INC.

TALISMAN F. E. X. AKLAQ #6

(7125.0 - 7161.4 ft)

5 inches - 100 feet

Core Laboratories Canada Ltd.

Lithology



Limestone



Dolomite



Sandstone



Shale



Anhydrite



Conglomerate



Glauconite



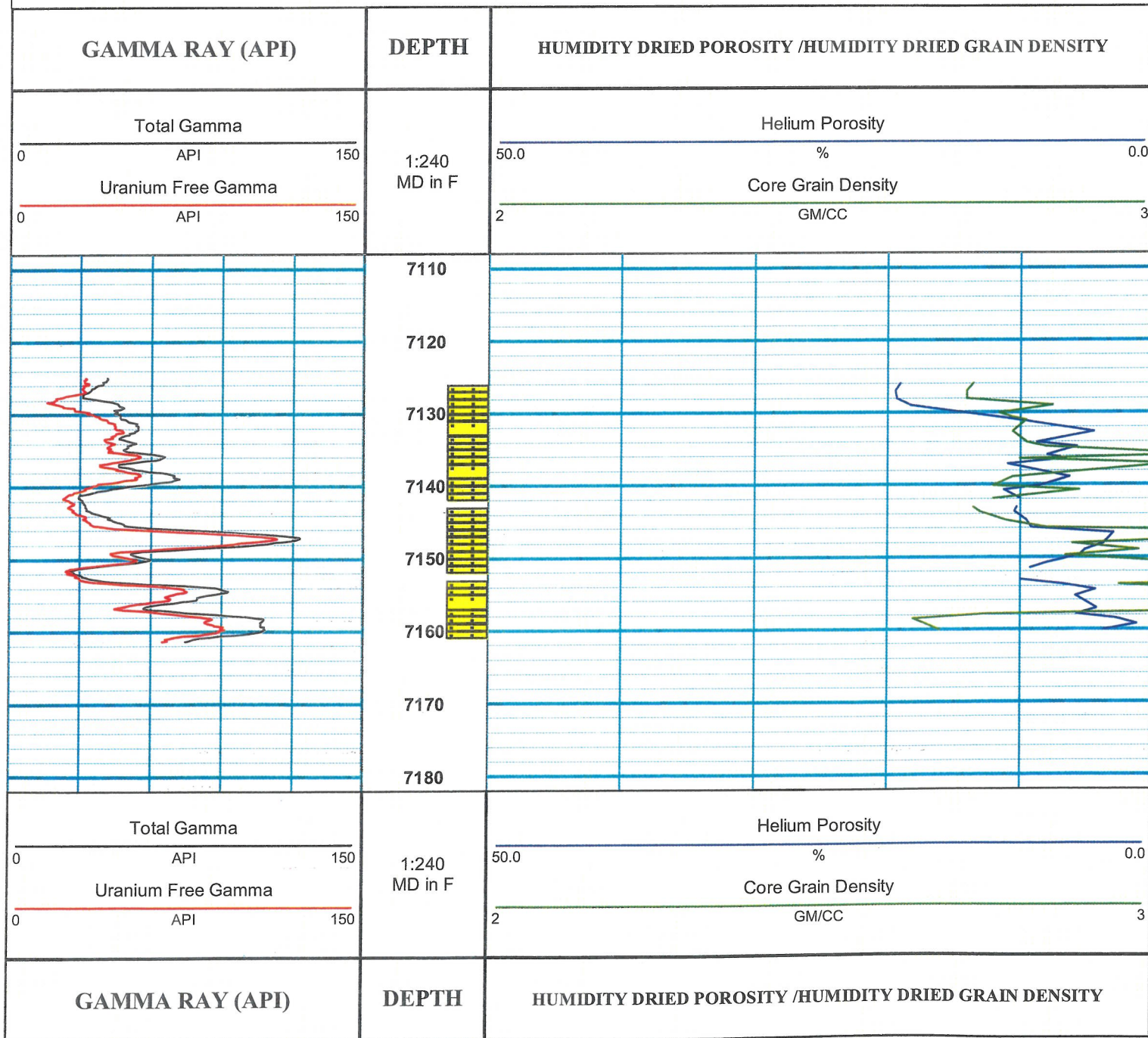
Shaley Sandstone



Siltstone



Coal



CORRELATION COREGRAPH

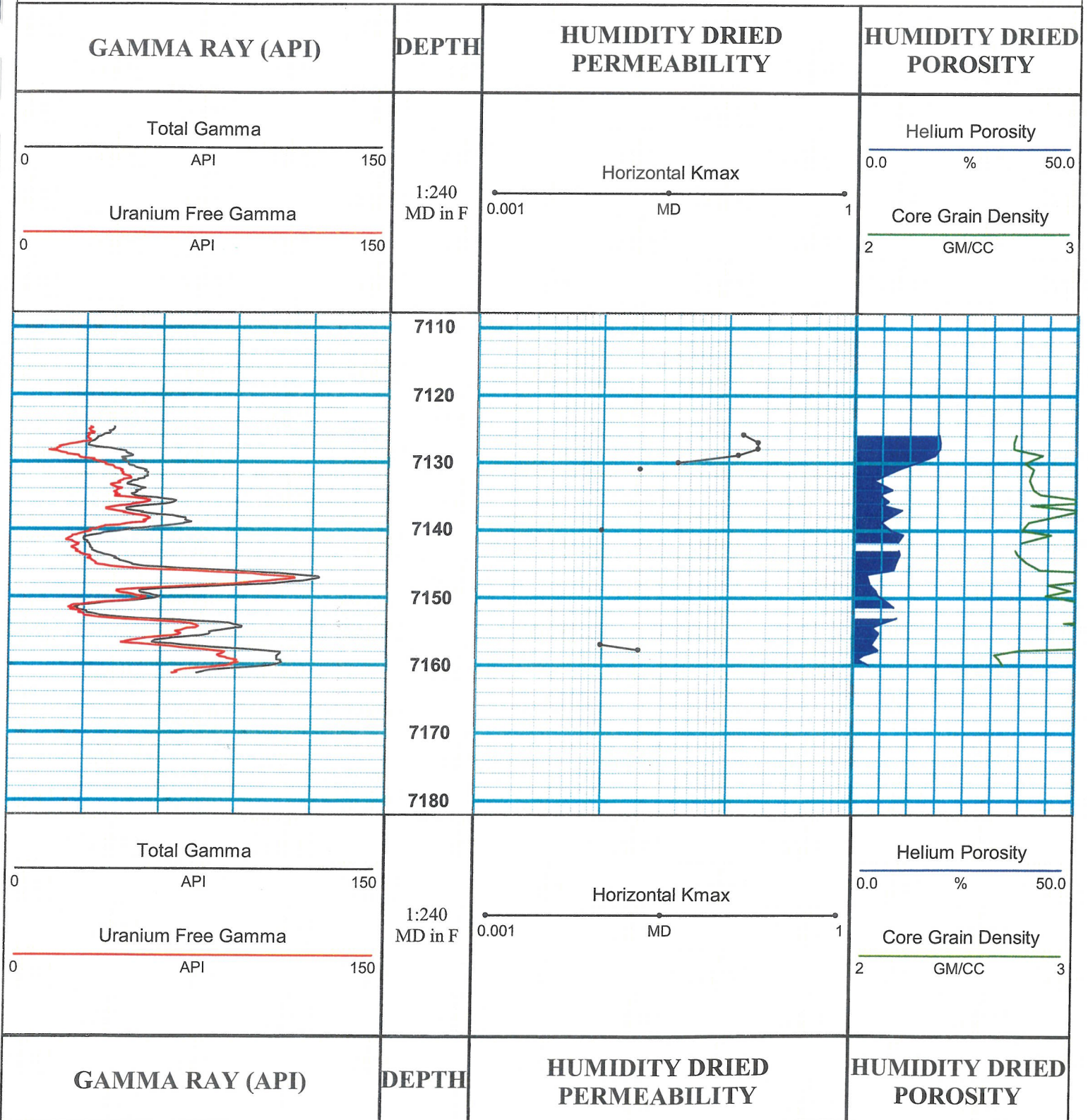
TALISMAN ENERGY INC.

TALISMAN F. E. X. AKLAQ #6

(7125.0 - 7161.4 ft)

5 inches - 100 feet

Core Laboratories Canada Ltd.

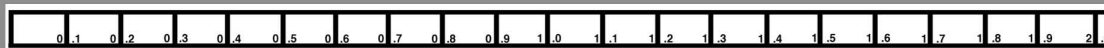


TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6

52139-07-4397
07-05-12

Core #1

Top 7125.0 ft



Bottom 7134.1 ft



GMC Data Report 386

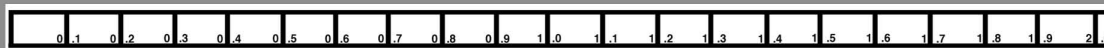
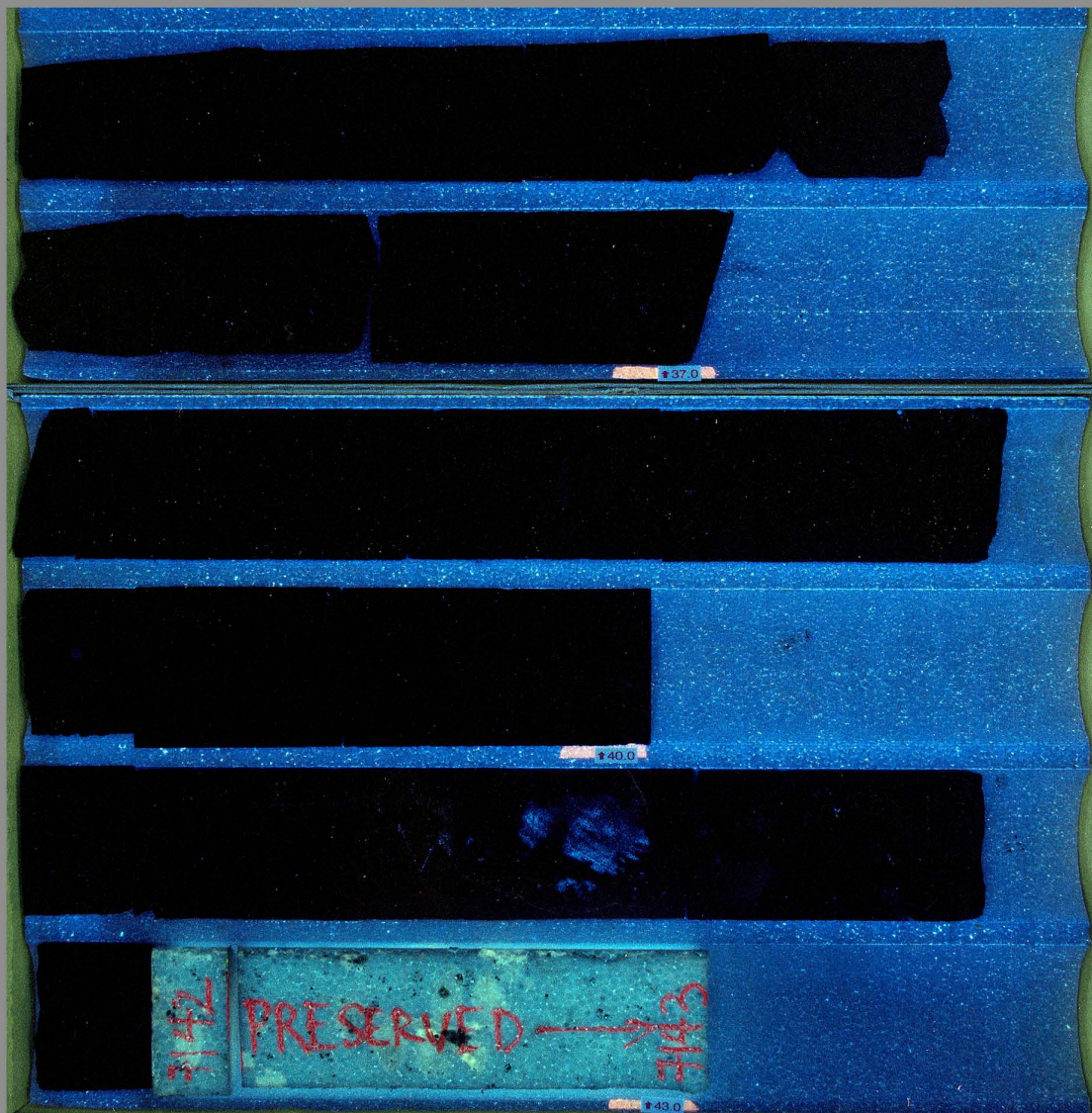


TALISMAN
ENERGY

15 of 14

TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6
Core #1
Top 7134.1 ft

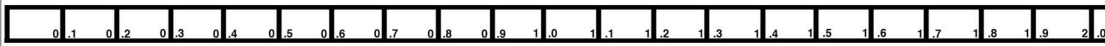
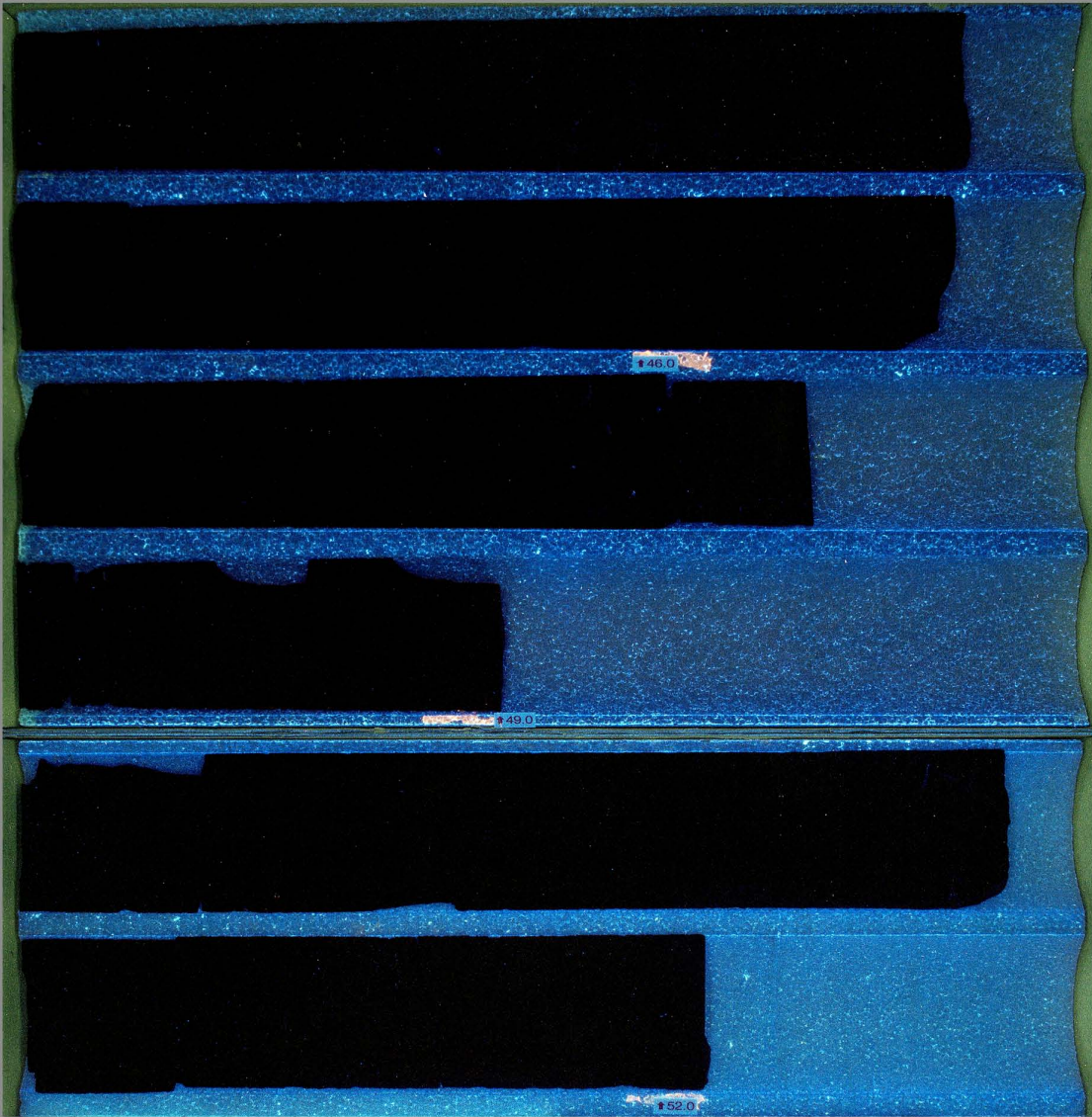
52139-07-4397
07-05-12



Bottom 7143.1 ft

TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6
Core #1
Top 7143.1 ft

52139-07-4397
07-05-12



Bottom 7152.1 ft



GMC Data Report 386

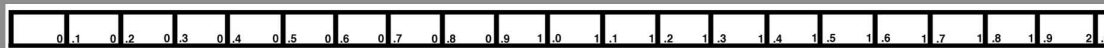


TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6

52139-07-4397
07-05-12

Core #1

Top 7152.1 ft



Bottom 7161.4 ft



GMC Data Report 386

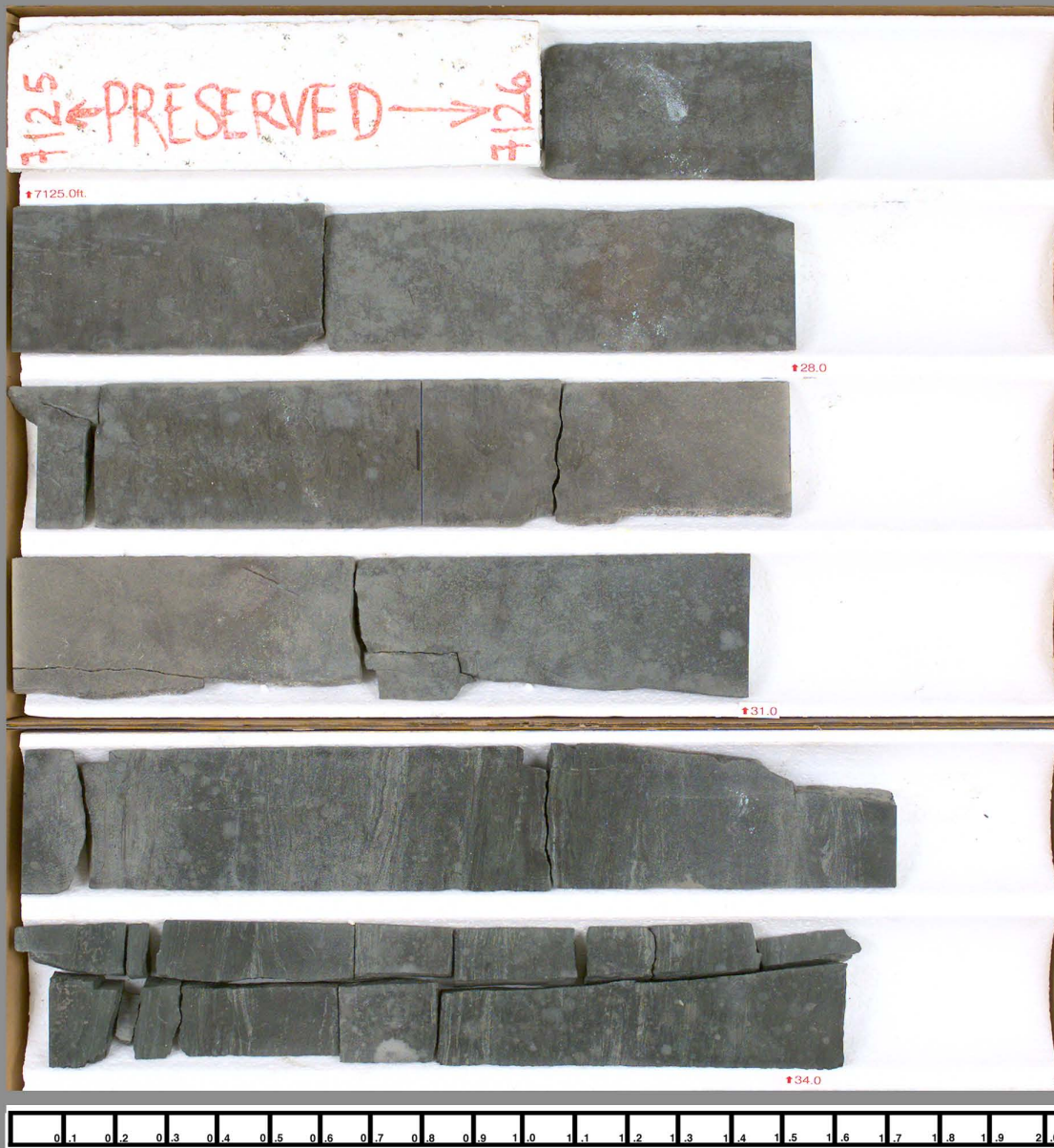


TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6

52139-07-4397
07-05-12

Core #1

Top 7125.0 ft



Bottom 7134.1 ft



GMC Data Report 386

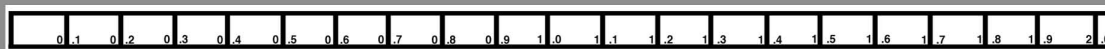
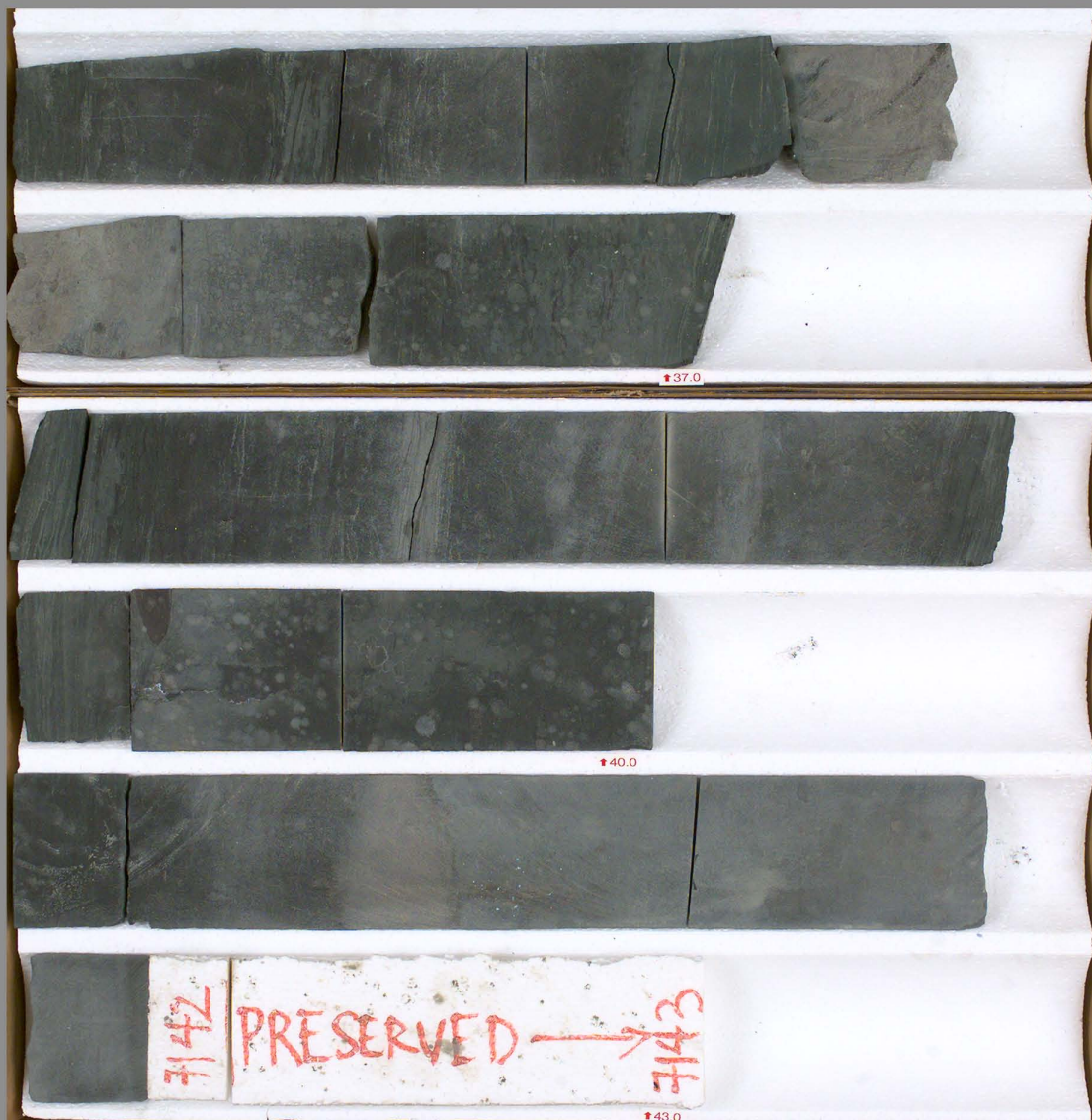


TALISMAN
ENERGY

17 of 14

TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6
Core #1
Top 7134.1 ft

52139-07-4397
07-05-12



Bottom 7143.1 ft



GMC Data Report 386



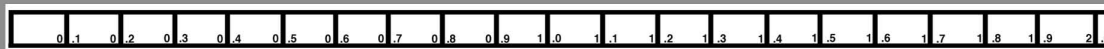
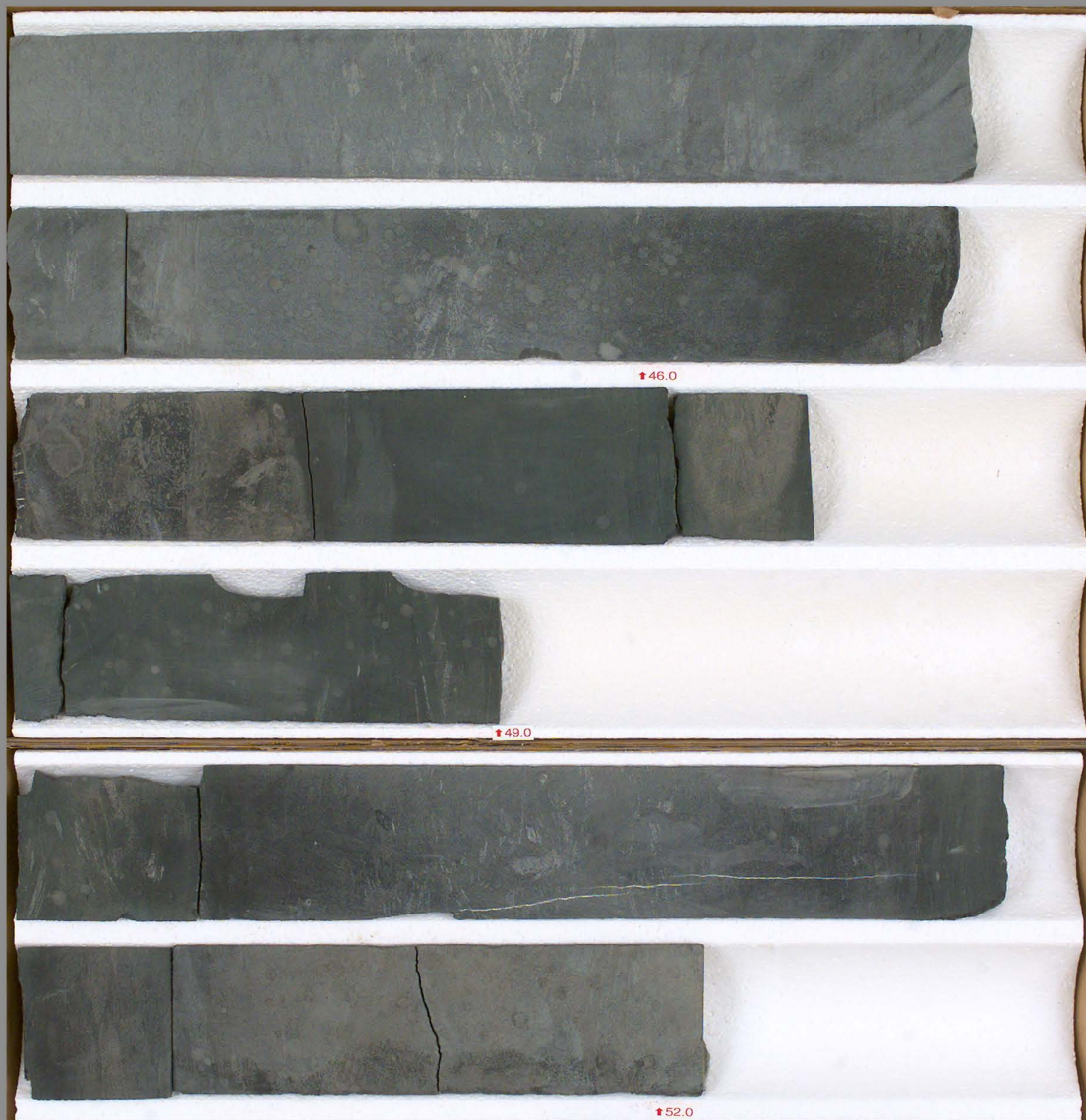
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TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6

52139-07-4397
07-05-12

Core #1

Top 7143.1 ft



Bottom 7152.1 ft



GMC Data Report 386

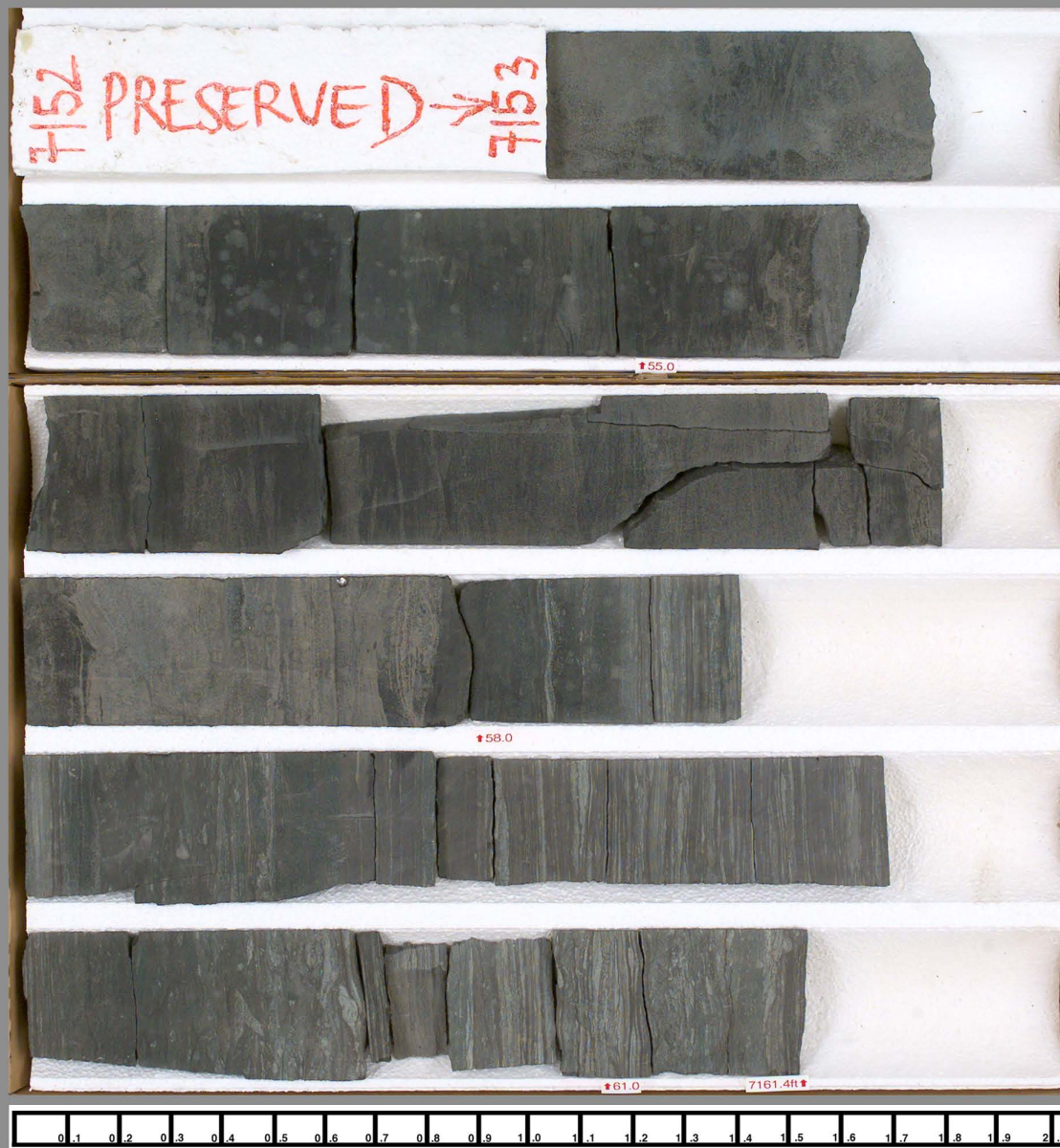


TALISMAN ENERGY INC.
TALISMAN F.E.X. AKLAQ #6

52139-07-4397
07-05-12

Core #1

Top 7152.1 ft



Bottom 7161.4 ft

Entered
5/5/11

GEOLOGICAL MATERIALS CENTER

NEW INVENTORY

STATE COLLECTION

INVENTORIED BY: DCH 4/13/11

GMC LOCATION N	Well Name	Well No	API	Operator 1	TYPE	TOP CORE #1	BOTTOM	COMMENTS
	AKLAQ	2	50-279-20014-0000	FEX L.P.	CORE	7629	7677	4" - 1/3 SLABS
107A					1/6	7629	7638	
"					2/6	7638	7647	
107B					3/6	7647	7656	
					4/6	7656	7665	
					5/6	7665	7674	
					6/6	7674	7677	
					CORE	—	—	4" - 2/3 SLABS
					1/14	7629	7632	
					2/14	7632	7635	
					3/14	7635	7639	
					4/14	7639	7643	
					5/14	7643	7646	
					6/14	7646	7649	
					7/14	7649	7653	
107C					8/14	7653	7656	
"								

GEOLOGICAL MATERIALS CENTER

NEW INVENTORY

STATE COLLECTION

INVENTORIED BY: DCH 4/13/11

GMC LOCATION	Well Name	Well No	API	Operator 1	TYPE	TOP	BOTTOM	COMMENTS
	AKLAQ	2	50-279-20014-0000	FEX L.P.	CORE	—	—	4" - 2/3 SLABS
107C					9/14	7656	7660	
					10/14	7660	7663	
					11/14	7663	7666	
					12/14	7666	7670	
					13/14	7670	7674	
					14/14	7674	7677	
	AKLAQ	6	50-279-20019-0000	FEX L.P.	CORE	—	—	4" - 1/3 SLABS
					1/6	7125	7131	
					2/6	7131	7137	
					3/6	7137	7143	
					4/6	7143	7149	
					5/6	7149	7155	
					6/6	7155	7161	

GEOLOGICAL MATERIALS CENTER

NEW INVENTORY

STATE COLLECTED

INVENTORIED BY: DEN 4/13/11

GMC LOCATION	Well Name	Well No	API	Operator 1	TYPE	TOP	BOTTOM	COMMENTS
	AKLAQ	6	50-279-20019-0000	FEX L.P.	CORE	CORE #1 7125	7161	4" - 2/3 SLABS
104A					1/12	7125	7128	
					2/12	7128	7131	
					3/12	7131	7134	
					4/12	7134	7137	
					5/12	7137	7140	
					6/12	7140	7143	
					7/12	7143	7146	
					8/12	7146	7149	
					9/12	7149	7152	
					10/12	7152	7155	
					11/12	7155	7159	
					12/12	7159	7161	
					12/12	7126	7161	22 CORE PLUG CHIPS

GEOLOGICAL MATERIALS CENTER

NEW INVENTORY

STATE COLLECTION

INVENTORIED BY: DCH 4/13/11

GMC LOCATION	Well Name	Well No	API	Operator 1	TYPE	TOP	BOTTOM	COMMENTS
	AKLAQYAAK	1	50-279-20018-0000	FEX L.P.	CORE	CORE #1 9905	9923	4" - 1/3 SLABS
107A					1/3	9905	9911	
					2/3	9911	9917	
					3/3	9917	9923	
					CORE	—	—	4" - 2/3 SLABS
					1/7	9905	9908	
					2/7	9908	9911	
					3/7	9911	9915	
					4/7	9915	9918	
					5/7	9918	9920	
					6/7	9920	9922	
					7/7	9922	9923	