STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

Alaska Geologic Materials Center *Data Report* *No. 362*

No. 362: QFT (Fluorescence) Characterization for ***Inigok #1***, ***Milne Pt Unit KR #A-01***, ***Itkillik Unit #1*** wells.

Received *June, 2009*

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Core Laboratories Reservoir Fluids Report - Calgary

QFT (Fluorescence) Characterization
for
Talisman Energy Canada
Inigok, MPU A1, Itkillik

File Number: 52137-2008-5410

Date: September 30, 2008

Report Distribution: J. Deering (Calgary)

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COMPANY	Talisman Energy Canada		
WELL	Inigok, MPU A1, Itkillik	DATE	Sept 30, 2008
PROJECT	Fluorescence Characterization	FILE	52137-2008-5410

Scope of the Work

To gain insight into the presence of crude oil in the rock samples via solvent extraction followed by fluorescence. Hydrocarbon components that are contributors to observed fluorescence are the high molecular weight aromatic compounds which are present in crude oil.

Numerous samples of rock material were submitted by Talisman for this characterization. The samples received were from the following locations:

Inigok

MPU A1

Itkillik

Analytical Method Description

The samples as received were subject to the following procedure:

Approximately 0.5 g of sample is transferred into a vial.
The exact mass of sample is accurately determined and noted.

Approximately 15 mL of nC7 is added to the sample and shaken.
The sample is allowed to stand for 15 minutes to allow the solvent nC7 extract any residual hydrocarbon from the sample.

An aliquot is removed for fluorescence measurement.
The fluorometer employed has a 370 nm excitation filter and a 418 – 700 nm emission filter.

Fluorometer readings are recorded in mV.
Readings are normalized to the amount of sample.

Blank solvent is run every 5 samples to screen out spurious readings.
Fluorescence of a reference oil sample in nC7 is also run for reference.

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COMPANY	Talisman Energy Canada		
WELL	Inigok, MPU A1, Itkillik	DATE	Sept 30, 2008
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Inigok Results

Sample	Reading	Mass (g)	Normalized
3880	0.0	0.4337	
3890	0.0	0.4431	
3900	0.0	0.4526	
3910	0.0	0.4143	
3920	0.0	0.4396	
Blank	0.0		
3930	0.0	0.4065	
3940	0.0	0.4096	
3950	0.0	0.4665	
Blank	0.0		
3960	0.0	0.4288	
3970	0.0	0.3949	
4000	0.0	0.4505	
4010	0.0	0.3688	
4020	0.0	0.4322	
4040	0.2	0.3498	spurious
4050	0.2	0.3687	spurious
Blank	0.2		
4060	0.0	0.3769	
4070	0.0	0.4418	
4080	0.0	0.4225	
Blank	0.0		
1 ppm	0		
10 ppm	0.2		
20 ppm	0.6		
100 ppm	2.6		

Reference sample = 33 API black oil, nC7 solution

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WELL	Inigok, MPU A1, Itkillik	DATE	Sept 30, 2008
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MPU A1 Results

Sample	Reading	Mass (g)	Normalized
3550-80	0.0	0.4741	0.00
Blank	0.0		
3580-3610	0.0	0.4365	0.00
3610-40	0.0	0.3910	0.00
3640-70	0.0	0.4190	0.00
3670-3700	0.0	0.4227	0.00
Blank	0.0		
3730-60	1.1	0.4134	2.66
3760-90	0.2	0.4669	0.43
3790-3820	0.6	0.4581	1.31
3820-50	0.4	0.4057	0.99
3850-80	0.3	0.4567	0.66
Blank	0.0		
3910-40	0.2	0.4890	0.41
3940-70	0.6	0.4922	1.22
3970-4000	0.2	0.4588	0.44
4000-30	0.5	0.4200	1.19
4030-60	0.0	0.4854	0.00
Blank	0.0		
4060-90	0.1	0.4860	0.21
4090-4120	0.0	0.4417	0.00
4120-50	0.0	0.4508	0.00
4150-80	0.0	0.4962	0.00
4180-4210	0.0	0.4208	0.00
Blank	0.0		
4210-40	0.3	0.4637	0.65
4240-70	0.1	0.3930	0.25
4270-4300	0.2	0.4834	0.41
4300-30	0.1	0.4597	0.22
4330-60	0.2	0.4482	0.45
Blank	0.0		
4360-90	0.3	0.4570	0.66
4390-4420	0.1	0.4616	0.22
4420-50	0.1	0.4967	0.20
4480-4510	0.2	0.4487	0.45
Blank	0		
1 ppm	0		
5 ppm	0.1		
10 ppm	0.2		
20 ppm	0.6		
100 ppm	2.8		

Reference sample = 33 API black oil, nC7 solution

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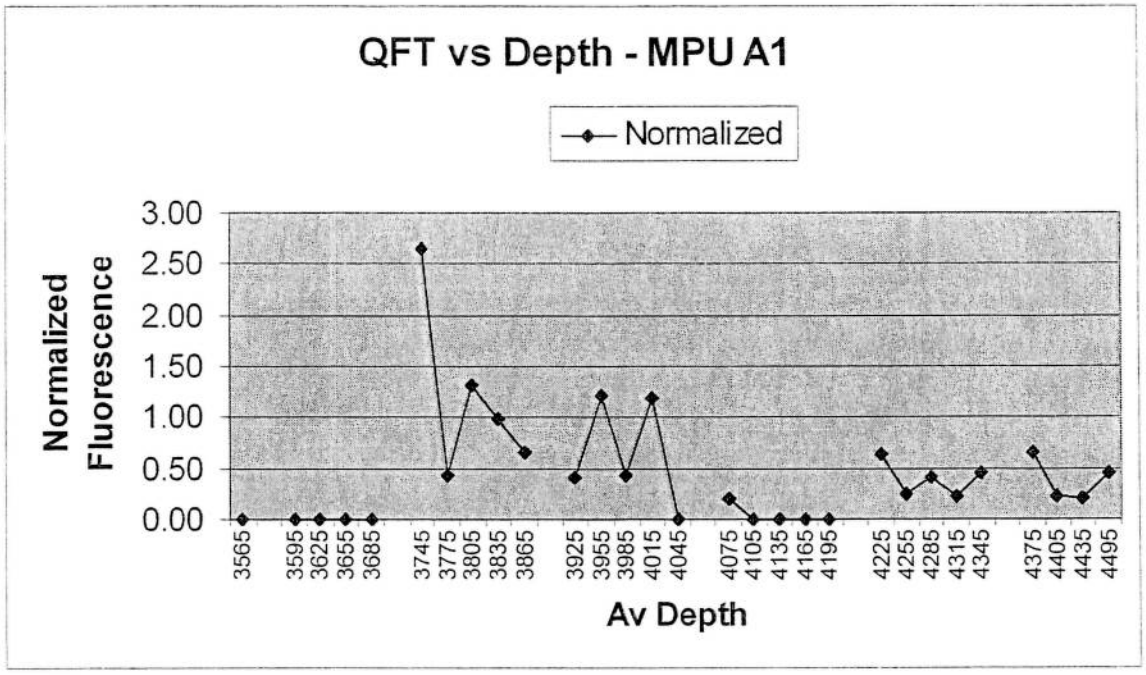
MPU A1 Results



CORE LABORATORIES

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WELL	Inigok, MPU A1, Itkillik	DATE	Sept 30, 2008
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Itkillik Results

Sample	Reading	Mass (g)	Normalized
4030	0.0	0.4592	
4040	0.0	0.4457	
4050	0.0	0.4875	
4060	0.0	0.4823	
4070	0.0	0.4832	
Blank	0.0		
4080	0.0	0.4620	
4090	0.0	0.4216	
4100	0.0	0.4622	
4110	0.0	0.4299	
4120	0.0	0.4178	
Blank	0.0		
4130	0.0	0.4086	
4140	0.0	0.477	
4150	0.0	0.5067	
4160	0.0	0.4472	
4170	0.0	0.4381	
Blank	0.0		
4180	0.0	0.4952	
4190	0.0	0.4245	
4200	0.0	0.5089	
4210	0.0	0.4853	
4220	0.0	0.4445	
Blank	0.0		

Well (hole) Name & Number	Depth		Processing	Type			GMC Storage
	From	To		Core	Cutting	Other	Location
Susie 1	1100	1110	QFT		X		110E
Susie 1	1130	1140	QFT		X		110E
Susie 1	11 0	1170	QFT		X		110E
Susie 1	1170	1180	QFT		X		110E
Susie 1	1180	1190	QFT		X		110E
Susie 1	1190	1200	QFT		X		110E
Susie 1	1210	1220	QFT		X		110E
Susie 1	1220	1230	QFT		X		110E
Susie 1	1230	1240	QFT		X		110E
Susie 1	1240	1250	QFT		X		110E
Susie 1	1270	1280	QFT		X		110E
Susie 1	1300	1310	QFT		X		110E
Susie 1	1340	1350	QFT		X		110E
Susie 1	1350	13 0	QFT		X		110E
Susie 1	13 0	1370	QFT		X		110E
Susie 1	1370	1380	QFT		X		110E
Susie 1	1380	1390	QFT		X		110E
Susie 1	1390	1400	QFT		X		110E
Susie 1	1410	1420	QFT		X		110E
Susie 1	1430	1440	QFT		X		110E
Susie 1	1440	1450	QFT		X		110E
Susie 1	1450	14 0	QFT		X		110E
Susie 1	14 0	1470	QFT		X		110E
Susie 1	1470	1480	QFT		X		110E
Susie 1	1480	1490	QFT		X		110E
Susie 1	1490	1500	QFT		X		110E
Susie 1	1500	1510	QFT		X		110E
Susie 1	1510	1520	QFT		X		110E
Susie 1	1520	1530	QFT		X		110E
Susie 1	15 0	1570	QFT		X		110E
Susie 1	1580	1590	QFT		X		110E
Susie 1	1 00	1 10	QFT		X		110E
Susie 1	1 10	1 20	QFT		X		110E
Susie 1	1 20	1 30	QFT		X		110E
Susie 1	1 30	1 40	QFT		X		110E
Susie 1	1 40	1 50	QFT		X		110E
Susie 1	1 50	1 0	QFT		X		110E
Susie 1	1 80	1 90	QFT		X		110E
Susie 1	1710	1720	QFT		X		110E
Susie 1	1730	1740	QFT		X		110E
Susie 1	1750	17 0	QFT		X		110E
Susie 1	17 0	1770	QFT		X		110E
Susie 1	1770	1780	QFT		X		110E
Susie 1	1780	1790	QFT		X		110E
Susie 1	1790	1800	QFT		X		110E

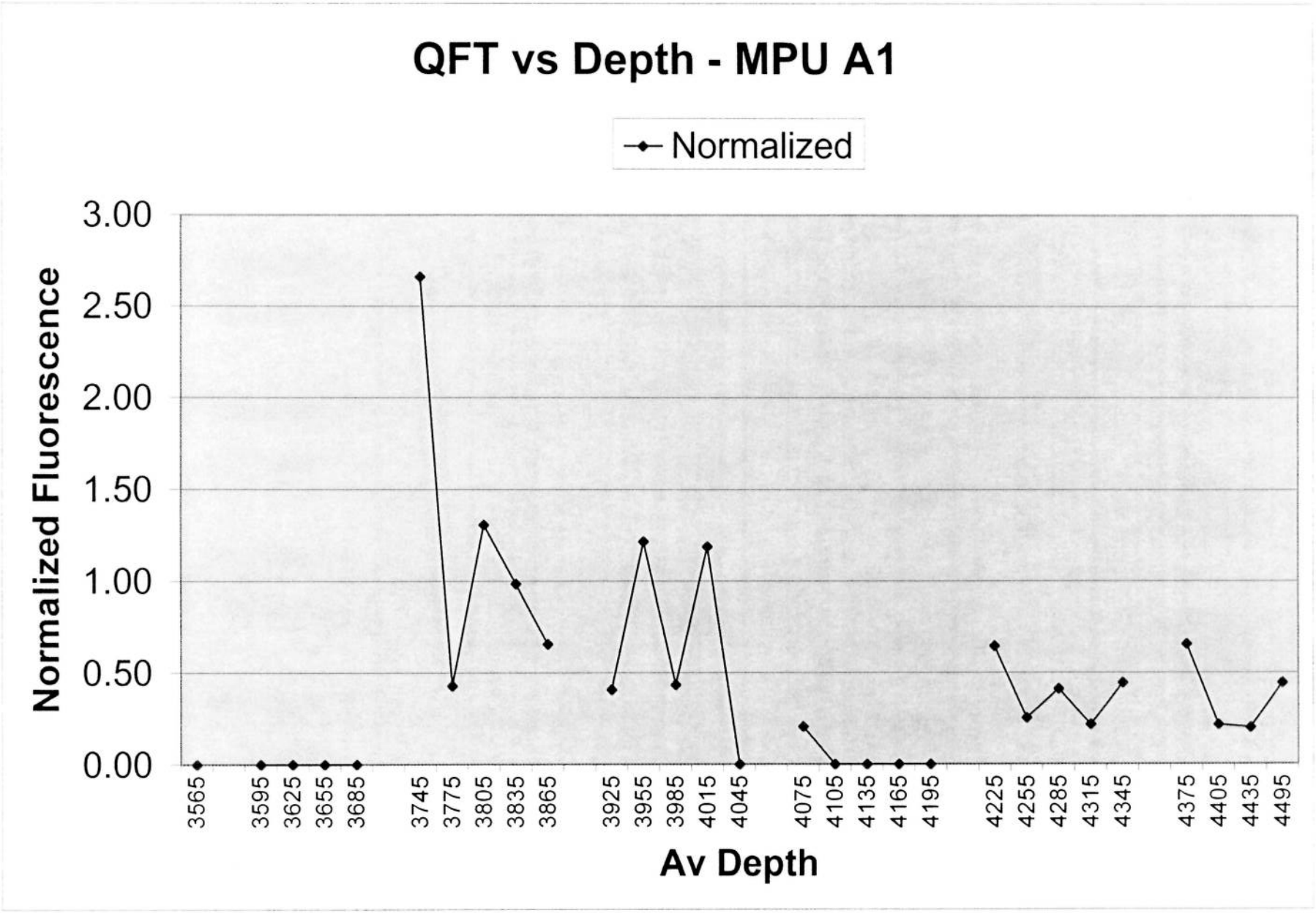
Susie 1	1800	1810	QFT		X		110E
Susie 1	1830	1840	QFT		X		110E
Susie 1	18 0	1870	QFT		X		110E
Susie 1	1870	1880	QFT		X		110E
Susie 1	1880	1890	QFT		X		110E
Susie 1	1900	1910	QFT		X		110E
Susie 1	1930	1940	QFT		X		110E
Susie 1	19 0	1970	QFT		X		110E
Susie 1	2010	2020	QFT		X		110E
Susie 1	2040	2050	QFT		X		110E
Susie 1	2070	2080	QFT		X		110E
Susie 1	2150	21 0	QFT		X		110E
Susie 1	2170	2180	QFT		X		110E
Susie 1	2300	2310	QFT		X		110E
Susie 1	2330	2340	QFT		X		110E
Susie 1	23 0	2370	QFT		X		110E
Susie 1	2400	2410	QFT		X		110E
Susie 1	2430	2440	QFT		X		110E
Susie 1	2440	2450	QFT		X		110E
Susie 1	24 0	2470	QFT		X		110E
Susie 1	2470	2480	QFT		X		110E
Susie 1	2490	2500	QFT		X		110E
Susie 1	2500	2510	QFT		X		110E
Susie 1	2520	2530	QFT		X		110E
Susie 1	2530	2540	QFT		X		110E
Susie 1	2540	2550	QFT		X		110E
Susie 1	2550	25 0	QFT		X		110E
Susie 1	2570	2580	QFT		X		110E
Susie 1	2580	2590	QFT		X		110E
Susie 1	2590	2 00	QFT		X		110E
Susie 1	2 00	2 10	QFT		X		110E
Susie 1	2 10	2 20	QFT		X		110E
Susie 1	2 20	2 30	QFT		X		110E
Susie 1	2 30	2 40	QFT		X		110E
Susie 1	2 40	2 50	QFT		X		110E
Susie 1	2 50	2 0	QFT		X		110E
Susie 1	2 70	2 80	QFT		X		110E
Susie 1	2 80	2 90	QFT		X		110E
Susie 1	2 90	2700	QFT		X		110E
Susie 1	2700	2710	QFT		X		110E
Susie 1	2710	2720	QFT		X		110E
Susie 1	2720	2730	QFT		X		110E
Susie 1	2730	2740	QFT		X		110E
Susie 1	2740	2750	QFT		X		110E
Susie 1	2750	27 0	QFT		X		110E
Susie 1	27 0	2770	QFT		X		110E
Susie 1	2780	2790	QFT		X		110E

Susie 1	2790	2800	QFT		X		110E
Susie 1	2800	2810	QFT		X		110E
Susie 1	2810	2820	QFT		X		110E
Susie 1	2820	2830	QFT		X		110E
Susie 1	2830	2840	QFT		X		110E
Susie 1	2840	2850	QFT		X		110E
Susie 1	2850	28 0	QFT		X		110E
Susie 1	28 0	2870	QFT		X		110E
Susie 1	2870	2880	QFT		X		110E
Susie 1	2880	2890	QFT		X		110E
Susie 1	2890	2900	QFT		X		110E
Susie 1	2900	2910	QFT		X		110E
Susie 1	2920	2930	QFT		X		110E
Susie 1	2930	2940	QFT		X		110E
Susie 1	2940	2950	QFT		X		110E
Susie 1	2950	29 0	QFT		X		110E
Susie 1	29 0	2970	QFT		X		110E
Susie 1	2970	2980	QFT		X		110E
Susie 1	2980	2990	QFT		X		110E
Susie 1	3040	3050	QFT		X		110E
Susie 1	3100	3110	QFT		X		110E
Susie 1	3110	3120	QFT		X		110E
Susie 1	3120	3130	QFT		X		110E
Susie 1	3130	3140	QFT		X		110E
Susie 1	3140	3150	QFT		X		110E
Susie 1	3150	31 0	QFT		X		110E
Susie 1	31 0	3170	QFT		X		110E
Susie 1	3170	3180	QFT		X		110E
Susie 1	3190	3200	QFT		X		110E
Susie 1	3210	3220	QFT		X		110E
Susie 1	3230	3240	QFT		X		110E
Susie 1	32 0	3270	QFT		X		110E
Susie 1	3290	3300	QFT		X		110E
Susie 1	3320	3330	QFT		X		110E
Susie 1	33 0	3370	QFT		X		110E
Susie 1	3390	3400	QFT		X		110E
Susie 1	3420	3430	QFT		X		110E
Susie 1	3440	3450	QFT		X		110E
Susie 1	3450	34 0	QFT		X		110E
Susie 1	3470	3480	QFT		X		97 A7
Susie 1	3480	3490	QFT		X		97 A7
Susie 1	3490	3500	QFT		X		97 A7
Susie 1	3500	3510	QFT		X		110E
Susie 1	3510	3520	QFT		X		97 A7
Susie 1	3520	3530	QFT		X		97 A7
Susie 1	3530	3540	QFT		X		97 A7
Susie 1	3540	3550	QFT		X		97 A7

Susie 1	3550	35 0	QFT		X		110E
Susie 1	35 0	3570	QFT		X		97 A7
Susie 1	3570	3580	QFT		X		97 A7
Susie 1	3 00	3 10	QFT		X		97 A7
Susie 1	3 10	3 20	QFT		X		97 A7
Susie 1	3 20	3 30	QFT		X		97 A7
Susie 1	3 30	3 40	QFT		X		97 A7
Susie 1	3 40	3 50	QFT		X		97 A7
Susie 1	3 50	3 0	QFT		X		97 A7
Susie 1	3 0	3 70	QFT		X		110E
Susie 1	3 70	3 80	QFT		X		97 A7
Susie 1	3 80	3 90	QFT		X		97 A7
Susie 1	3 90	3700	QFT		X		97 A7
Susie 1	3700	3710	QFT		X		97 A7
Susie 1	3710	3720	QFT		X		97 A7
Susie 1	3720	3730	QFT		X		110E
Susie 1	3730	3740	QFT		X		110E
Susie 1	3740	3750	QFT		X		110E
Susie 1	3750	37 0	QFT		X		97 A7
Susie 1	37 0	3770	QFT		X		110E
Susie 1	3770	3780	QFT		X		110E
Susie 1	3780	3790	QFT		X		110E
Susie 1	3800	3810	QFT		X		110E
Susie 1	3810	3820	QFT		X		110E
Susie 1	3830	3840	QFT		X		97 A7
Susie 1	3840	3850	QFT		X		97 A7
Susie 1	3850	38 0	QFT		X		97 A7
Susie 1	38 0	3870	QFT		X		97 A7
Susie 1	3870	3880	QFT		X		97 A7
Susie 1	3880	3890	QFT		X		97 A7
Susie 1	3890	3900	QFT		X		97 A7
Susie 1	3900	3910	QFT		X		97 A7
Susie 1	3910	3920	QFT		X		97 A7
Susie 1	3920	3930	QFT		X		97 A7
Susie 1	3930	3940	QFT		X		97 A7
Susie 1	3940	3950	QFT		X		97 A7
Susie 1	3950	39 0	QFT		X		97 A7
Susie 1	3980	3990	QFT		X		97 A7
Susie 1	3990	4000	QFT		X		97 A7
Itkillik 1	4030	4040	QFT		X		8A
Itkillik 1	4040	4050	QFT		X		8A
Itkillik 1	4050	40 0	QFT		X		8A
Itkillik 1	40 0	4070	QFT		X		8A
Itkillik 1	4070	4080	QFT		X		8A
Itkillik 1	4080	4090	QFT		X		8A
Itkillik 1	4090	4100	QFT		X		8A

Itkillik 1	4100	4110	QFT		X		8A
Itkillik 1	4110	4120	QFT		X		8A
Itkillik 1	4120	4130	QFT		X		8A
Itkillik 1	4130	4140	QFT		X		8A
Itkillik 1	4140	4150	QFT		X		8A
Itkillik 1	4150	41 0	QFT		X		8A
Itkillik 1	41 0	4170	QFT		X		8A
Itkillik 1	4170	4180	QFT		X		8A
Itkillik 1	4180	4190	QFT		X		8A
Itkillik 1	4190	4200	QFT		X		8A
Itkillik 1	4200	4210	QFT		X		8A
Itkillik 1	4210	4220	QFT		X		8A
Itkillik 1	4220	4230	QFT		X		8A
Inigok 1	3030	30 0	QFT		X		54D
Inigok 1	30 0	3090	QFT		X		54D
Inigok 1	3090	3120	QFT		X		54D
Inigok 1	3120	3150	QFT		X		54D
Inigok 1	3300	3320	QFT		X		54D
Inigok 1	3340	33 0	QFT		X		54D
Milne Point Unit G1	3480	3540	QFT		X		C2
Milne Point Unit G1	3540	3 00	QFT		X		C2
Milne Point Unit G1	3 00	3 0	QFT		X		C2
Milne Point Unit G1	3 0	3 90	QFT		X		C2
Milne Point Unit G1	3 90	3 90	QFT		X		C2
Milne Point Unit G1	3 90	3720	QFT		X		C2
Milne Point Unit G1	3720	3750	QFT		X		C2
Milne Point Unit G1	3810	3840	QFT		X		C2
Milne Point Unit G1	3900	3930	QFT		X		C2
Milne Point Unit G1	3930	39 0	QFT		X		C2
Milne Point Unit G1	39 0	3990	QFT		X		C2
Milne Point Unit G1	3990	4020	QFT		X		C2
Milne Point Unit G1	4020	4050	QFT		X		C2
Milne Point Unit G1	4050	4080	QFT		X		C2
Milne Point Unit G1	4080	4110	QFT		X		C2
Milne Point Unit G1	4110	4140	QFT		X		C2
Milne Point Unit G1	4140	4170	QFT		X		C2
Milne Point Unit G1	4170	4200	QFT		X		C2
Milne Point Unit G1	4200	4230	QFT		X		C2
Milne Point Unit G1	4230	42 0	QFT		X		C2
Milne Point Unit G1	42 0	4290	QFT		X		C2
Milne Point Unit G1	4290	4320	QFT		X		C2
Milne Point Unit G1	4320	4350	QFT		X		C2
Milne Point Unit G1	4350	4380	QFT		X		C2
Milne Point Unit G1	4380	4410	QFT		X		C2
Milne Point Unit G1	4410	4440	QFT		X		C2

Milne Point Unit G1	4440	4470	QFT		X		C2
Milne Point Unit G1	4470	4500	QFT		X		C2
Milne Point Unit G1	4500	4530	QFT		X		C2
Milne Point Unit G1	4530	45 0	QFT		X		C2
Milne Point Unit A1	3550	3580	QFT		X		C25
Milne Point Unit A1	3580	3 10	QFT		X		C25
Milne Point Unit A1	3 10	3 40	QFT		X		C25
Milne Point Unit A1	3 40	3 70	QFT		X		C25
Milne Point Unit A1	3730	37 0	QFT		X		C25
Milne Point Unit A1	37 0	3790	QFT		X		C25
Milne Point Unit A1	3790	3820	QFT		X		C25
Milne Point Unit A1	3820	3850	QFT		X		C25
Milne Point Unit A1	3910	3940	QFT		X		C25
Milne Point Unit A1	3940	3970	QFT		X		C25
Milne Point Unit A1	3970	4000	QFT		X		C25
Milne Point Unit A1	4000	4030	QFT		X		C25
Milne Point Unit A1	4030	40 0	QFT		X		C25
Milne Point Unit A1	40 0	4090	QFT		X		C25
Milne Point Unit A1	4090	4120	QFT		X		C25
Milne Point Unit A1	4120	4150	QFT		X		C25
Milne Point Unit A1	4150	4180	QFT		X		C25
Milne Point Unit A1	4180	4210	QFT		X		C25
Milne Point Unit A1	4210	4240	QFT		X		C25
Milne Point Unit A1	4240	4270	QFT		X		C25
Milne Point Unit A1	4270	4300	QFT		X		C25
Milne Point Unit A1	4300	4330	QFT		X		C25
Milne Point Unit A1	4330	43 0	QFT		X		C25
Milne Point Unit A1	43 0	4390	QFT		X		C25
Milne Point Unit A1	4390	4420	QFT		X		C25
Milne Point Unit A1	4420	4450	QFT		X		C25
Milne Point Unit A1	4450	4480	QFT		X		C25


QFT vs Depth - MPU A1
Normalized
Normalized Fluorescence
3.00
2.50
2.00
1.50
1.00
0.50
0.00
3565
3595
3625
3655
3685
3745
3775
3805
3835
3865
3925
3955
3985
4015
4045
4075
4105
4135
4165
4195
4225
4255
4285
4315
4345
4375
4405
4435
4495
Av Depth