

Table 5-3 MDT wellsite worksheet

FORMATION TESTER WELLSITE WORKSHEET - SAGA PETROLEUM ASA														
WELL: 34/7-29S			RUN/TOOLSTRING: 1A MDT/GR			WITNESS: BKP/ØC								
RIG: Transocean Leader			PRESSURE UNITS: BARA			DATE: 02-apr-98								
KB: 23.5 m			MUD WEIGHT (SG): 1.56 g/cm3											
TEST NO.	START TIME hh:mm	DEPTH MD RKB	MD-TVD	DEPTH TVD RKB	DEPTH TVD MSL	IN. HYDROST. PRESSURE EMW HP		FORMATION PRESSURE EMW HP		FIN. HYDROST. PRESSURE EMW HP		TEMP AFTER deg. C	MOB. INDEX mD/cP	COMMENTS
1	14:56	2706.5				410.60		336.303		410.51		83.0	396.4	Lim.dr.dwn. (280bar). OK
2	15:07	2709.5				411.20		336.495		411.02		82.8	150.2	OK
3	15:16	2712.0				411.55		336.672		411.41		82.6	1714.7	OK
4	15:27	2714.5				411.92		336.871		411.80		82.5	970.4	OK
5	15:40	2717.5				412.42		337.140		412.25		82.7	20.4	OK
6	15:50	2719.8				412.68				412.60		83.0		2.0cc Tight, Abandon
7	16:00	2719.6				412.65		338.930		412.50		83.3	0.4	1.9cc. Nearly stable after 500s, but supercharged.
8	16:13	2720.0				412.78		338.329		412.65		83.4	2.6	2.1cc. Nearly stable after 270s, but supercharged.
9	16:30	2900.8				440.78		372.605		440.60		89.1	5.2	Tied in; added 0.5m. Large drawdown, but stabilizing.
10	16:42	2905.0				441.30		372.847		441.04		92.4	1.9	Lim.dr.dwn. (310bar). 1.9cc. Nearly stable (fluctuating some)
11	16:53	2908.2				441.72		372.828		441.57		94.1	10.6	Stable after 300s. OK
12	17:03	2911.6				442.27		372.271		442.08		95.1	9.8	Stable after 300s. OK
13	17:14	2915.5				442.87				442.64				1.9cc. Supercharged (373.5 and incr.)
14	17:24	2916.6				443.06		374.360				96.5	0.5	2.0cc. Supercharged. 374.36 after 300s (nearly stable).
15	17:34	2916.4				442.88				442.80		96.8		1.8cc. Supercharged.
16	17:42	2909.2				441.54		372.896		441.59		97.0	12.1	OK
17	18:20	2706.5				410.35								Martineau probe pretest. 280 limit. Also have to set other probe. P approx. 336.5. Start PO at slowest rate. Pf=332bar. Pump stopped, P=336.22. Reverse. incr. rpm, OK. Reverse. Continue pumping w/Pf=330.
17.1	18:53	2706.5												Stop pump after 14635cc. Open 2 3/4. Pf=315+ Full after 135s. P=336.246.
17.2	18:57	2706.5												Try to open 1st. 1-gal, no go. Try 2nd 1-gal. Throttle at 330, Pf fluctuating some. Full after approx. 10s.
17.3	19:08	2706.5						336.259		410.31		85.3		Open 1st 1 gal (SC2) w/o throttling to force open. Fill after approx. 10s (larger pressure drop). Pafter=336.259. T=85.3.
														NB: 2 3/4 gal chamber probably the best sample (low dP). Ship all 3 to land sealed at pressure.

5.6 Fluid sampling and evaluation

Fluid samples proved the reservoir fluid to be an undersaturated oil. The fluid samples were taken during the MDT run, using the Pump-Out module in combination with the Optical Fluid Analyser to limit contamination of mud filtrate. All fluid samples were taken at 2706.5 mMD RKB. The fluid analyses were performed at the Oilphase GECO laboratory. In addition some analyses were repeated at Saga's internal laboratory as quality assurance. Single flash and compositional analyses were performed on samples from each of the chambers. The quality of the samples and analyses is assumed to be good, because no significant differences were observed between the experimental results.

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
980302	PSPUD		1.03			/		/					WATER BASED
980304	9 7/8"		1.03			/		/					WATER BASED
980305	36"		1.03			/		/					WATER BASED
980306	36"		1.03			/		/					WATER BASED
980307	17 1/2"		1.03			/		/					WATER BASED
980308	17 1/2"		1.03			/		/					WATER BASED
980309	17 1/2"	1211.0	1.03	35.0	18.7	16/30	9.3	/					WATER BASED
980310	17 1/2"	1211.0	1.03	35.0	18.7	16/30	9.3	/					WATER BASED
980311	17 1/2"	1211.0	1.20	35.0	18.7	16/30	9.3	/					WATER BASED
980312	17 1/2"	1211.0	1.20	35.0	18.7	16/30	9.3	/					WATER BASED
980313	17 1/2"	1211.0	1.20	35.0	18.7	16/30	9.3	/					WATER BASED
980314	17 1/2"	1211.0	1.20	35.0	18.7	16/30	9.3	/					WATER BASED
980315	17 1/2"	1211.0	1.20	35.0	18.7	16/30	9.3	/					WATER BASED
980316	17 1/2"	1211.0	1.20	35.0	18.7	16/30	9.3	/					WATER BASED
980317	12 1/4"	1475.0	1.45	33.0	27.0	8/10	7.5	/ .1		7800			WATER BASED
980318	12 1/4"	1570.0	1.45	33.0	22.0	7/12	7.5	/ .1		78000		1.5	WATER BASED
980319	12 1/4"	2057.0	1.56	32.0	26.0	8/14	7.5	/ .1		78000		17.0	WATER BASED
980320	12 1/4"	2115.0	1.56	32.0	26.0	8/14	7.5	/ .1		77000		17.0	WATER BASED
980321	12 1/4"	2272.0	1.57	31.0	28.0	8/14	7.9	/ .2		84000		17.9	WATER BASED
980322	12 1/4"	2558.0	1.57	29.0	23.0	7/16	7.8	/ .2		80000		16.6	WATER BASED
980323	12 1/4"	2558.0	1.57	28.0	20.0	7/15	7.8	/ .2		81000		16.5	WATER BASED
980324	12 1/4"	2558.0	1.57	28.0	20.0	7/15	7.8	/ .2		81000		16.5	WATER BASED
980325	8 1/2"	2558.0	1.56	28.0	20.0	7/15	7.8	/ .2		81000		16.5	WATER BASED
980326	8 1/2"	2558.0	1.56	21.0	19.0	6/19	10.5	/ .3		81000	.3	16.5	WATER BASED
980327	8 1/2"	2685.0	1.56	27.0	24.0	8/23	10.4	/ .8		81000	.3	17.1	WATER BASED
980328	8 1/2"	2718.0	1.56	27.0	20.0	7/24	10.5	/ .7		82000	.3	17.0	WATER BASED
980329	8 1/2"	2726.0	1.56	26.0	23.0	8/24	10.0	/ .7		79000	.3	17.2	WATER BASED

Well: 34/7-29S

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
980330	8 1/2"	2701.0	1.56	28.0	20.0	8/19	9.6	/ .5		79000	.3	17.8	WATER BASED
980331	8 1/2"	2701.0	1.56	28.0	28.0	8/26	8.5	/ .5		79000	.2	17.8	WATER BASED
980401	8 1/2"	2927.0	1.56	39.0	30.0	8/17	8.5	/ .8		80000	.2	17.2	WATER BASED
980402	8 1/2"	2909.2	1.56	39.0	30.0	8/17	8.5	/ .8		80000	.2	17.2	WATER BASED
980403	8 1/2"	2909.2	1.56	39.0	30.0	8/17	8.5	/ .8		80000	.2	17.2	WATER BASED
980404	8 1/2"	2909.2	1.56	31.0	25.0	7/14	8.4	/ .8		81000	.2	17.1	WATER BASED
980405	8 1/2"	2909.2	1.56	27.0	23.0	6/13	8.4	/ .1		83000	.2	16.9	WATER BASED
980406	T&A	2909.2	1.56	35.0	32.0	8/20	10.7	/ .9		81000	.2	17.1	WATER BASED
980407	T&A	2909.2	1.03			/		/					WATER BASED
980408	T&A		1.03			/		/					WATER BASED
980409	T&A		1.03			/		/					WATER BASED
980410	T&A		1.03			/		/					WATER BASED
980411	T&A		1.03			/		/					WATER BASED
980412	T&A		1.03			/		/					WATER BASED
980413	T&A		1.03			/		/					WATER BASED
980414	T&A		1.03			/		/					WATER BASED

Mud Materials Used

WELL 34/7-29S

Material	Unit	9 7/8" pilot hole	36"	17 1/2"	12 1/4"	8 1/2"	Total
Antisol FL 30	kg					1175	1175
Aquacol D	kg				6000		6000
Barite	MT	132	23	34	533	155	877
Bentonite	MT	58	7	15			80
Citric Acid	kg					500	500
CMC-EHV	kg			300			300
KCl Brine	m ³						
KCl Premix #1 ¹⁾	m ³				215		215
KCl Premix #2 ²⁾	m ³				500	295	795
KCl Premix #3 ³⁾	m ³				5		5
KCl Salt	kg				5000		5000
Lime	kg	120	40	60			220
Mica F	kg				1425		1425
Mica M	kg				750		750
Nutplug F	kg				1550		1550
Nutplug M	kg				750		750
Soda Ash	kg					175	175
Venfyber	kg				910		910
Xanthan Gum	kg				3071	470	3541

¹⁾ Premix carried over from 34/7-28

²⁾ Premix #2: Conc. 232 kg/m³ KCl, 18 kg/m³ Antisol FL, 60.4 kg/m³ Aquacol D

³⁾ Premix #3: Conc. 234 kg/m³ KCl, 18 kg/m³ Antisol FL, 40.3 kg/m³ Aquacol D

Table 6.4 Mud Materials used.

4 FORMATION EVALUATION

4.1 Well Testing

4.1.1 Production test no. 1 (2704-2716 mMD RKB DSB)

4.1.1.1 Operations

The interval 2704 – 2716 mMD RKB (Deepsea Bergen), 2626.7 – 2638.7 mTVD RKB, was perforated, against a closed choke manifold, 04.03.99 using TCP guns. The well was planned perforated 10 bars underbalanced. The result was however an overbalance of 3 – 4 bars while perforating, due to the depletion of the reservoir pressure since the MDT was run (April 1998), it was perforated with 3-4 bars overbalance. Halliburton 4 5/8" (RDX, DP/LD, 22,7 g, 12 SPF) guns were used. Test string used was 3 1/2".

The well was opened for clean-up flow on a 6.4 mm (16/64") adj. choke, through the heater to the burners, just after a positive indication of perforation was observed. After one hour clean-up, the flow was directed through the separator. The choke size was increased in steps, while checking for sand, to a max. separator rate of 900 Sm³/d (17.5 mm (44/64") fixed choke). After a total clean-up time of 6.4 hours and no sand production, the well was shut in at the tester valve down hole and thereafter at the choke manifold for a pressure build-up.

After clean-up pressure build-up period of 6.2 hours, the well was opened on a 6,4 mm (16/64") adj. choke, for the main flow, through the heater. The choke size was increased in steps to 17,5 mm (44/64") fixed choke in about 1.5 hours. The flow was directed through the separator 0.75 hours after the well was opened. The main flow had a duration of 72 hours during which the oil rate decreased gradually from 920 Sm³/d to 875 Sm³/d. The wellhead pressure decreased from 84.0 bars to 80.6 bars during the same period.

Varying steam supply from the rig gave regulating problems for the heater. These regulating problems caused the separator conditions to vary during parts of the test.

A total of 12 meterfactors were taken during the main flow and one meterfactor was taken during the clean-up flow. All fluid samples from the separator were taken during the main flow.

The well was shut in at the tester valve down hole and thereafter at the choke manifold for the main pressure build-up. After 48 hours build-up, a minifrac test was done as part of the killing procedure.

The test was finished 14.03.99 and the rig left the location 17.03.99.

Main results are shown in Table 4.1 and Table 4.2 and graphically in Figure 4.1.

Table 4.1. Flow- and build-up periods, 34/7-29SR test # 1

Period	Event	Duration (hr)
FL1	Clean-up flow, up to 17.5mm (44/64")	6.4
BU1	Clean-up build-up	6.2
FL2	Main flow, 17.5 mm (44/64")	72
BU2	Main build up	48

Table 4.2. Summary of production results (data from end of period), 34/7-29SR test # 1

Period	WHP (bar)	WHT (DegC)	BHP* (bar)	BHT* (DegC)	Q _{gas} (sm ³ /d)	Q _{oil} (sm ³ /d)	GOR (sm ³ /sm ³)	PI _{oil} ** (sm ³ /d/bar)
FL1	83.5	36.7	309.9	94.1	123500	900	137	72
FL2	80.6	40.8	299.0	94.2	120000	875	137	37

*) WCQR # 2776 at 2679.6 mMD RKB (2602.6 mTVD RKB).

***) Inclusive formation skin and friction loss between perforation and gauge. Steady state not reached.

4.1.1.2 Fluid sampling and analysis

Gas analysis: On-site analysis indicated 0.4 mol % CO₂, 0.3 ppm H₂S, <0.5 ppm R-SH, 340 Bq/m³ ²²²Rn and 0.3 µg/m³ Mercury.

Oil density: The oil density was measured to 842 kg/Sm³.

The following PVT-samples were collected from the separator:

Date	Time	Set no.
05.03.99	14:30 – 15:00	1
06.03.99	21:40 – 22:10	2
07.03.99	09:55 – 10:25	3
07.03.99	16:15 – 16:45	4*
07.03.99	16:50 – 17:20	5*

*) Taken when injecting defoamer, DYN0 DF 522

Each PVT set consists of 0,55 l. oil and 20 l. gas in pressurised bottles.

The following other samples were taken:

- 2 gas bottle for geochemistry (0.3 l.)
- 2 oil bottle for geochemistry (0.5 l.)
- 3 oil samples for SCAL/TBP (each 20 l.)
- 5 stabilised oil samples (each 18 l.)

The well was perforated and flowed for clean up period at 44/66" choke for 6 hrs, before it was shut in for build-up prior to main flow period.

The well was then opened again and flowed at 44/64" choke for 72 hrs. Typical parameters: WHP = 81.5 bar, WHT = 41 degree, $Q_{oil} = 863 \text{ Sm}^3/\text{d}$, $Q_{gas} = 119520 \text{ Sm}^3/\text{d}$ and $GOR = 138 \text{ Sm}^3/\text{Sm}^3$.

Well 34/7-29SR was then shut in for 48 hrs for final build-up. Bottom hole sampling after flowing was cancelled.

Killed the well with bullheading tubing contents with 1.40 Sg mud. Pumped a total of 10.9 m³. Performed minifrac programme. Injected 4.5 m³ in 3 separate minifrac at injection pressures between 150 – 170 bar. Closed IRIS valve, opened BOPs and unseated packer. It was unable to bullhead down annulus and packer reset. Had to open IRIS valve and circulate bottoms up the long way. The well was static. Laid down flowhead, unseated packer and established circulation the long way. Circulated bottoms up over the chokes with max gas 2.3 %. Opened lower annular preventer and circulated riser volume. The well was static and the test string was POOH.

2.1.4 Permanent P&A

The permanent P&A programme started 14.03.99 at 16:30 hrs after one DST.

Set 7" cement retainer at 2654 m MD on wireline.

RIH with cement stinger on 3 ½"/5 ½" DP to squeeze cement the test interval. Had to waiting on weather for 44 hrs before start squeeze operation. Circulated string volume prior to stinging into cement retainer (15 MT down) and established injection rate. Kept 35 bar on annulus to verify no leak across retainer seals. Stung out of retainer and pumped 5 m³ freshwater spacer, 2.2 m³ 1.90 SG cement slurry and 0.5 m³ freshwater spacer. Displaced same with 1.40 Sg mud prior to sting into retainer. Squeezed a total of 5.2 m³. Stung out and pressure tested same to 200 bar.

Cement plug no. 2 was set from 2654 – 2400 m MD and cemented with 5.8 m³ 1.90 SG cement slurry. Dumped ± 8 m³ cement contaminated mud in returns. POOH to 660 m and spot 3 m³ hivisc 1.56 Sg pill. Displaced hole to 1.56 SG mud at 600 m.

Set 9 5/8" bridge plug at 591 m MD on wireline. Pressure tested same to 200 bar against closed shear ram.

RIH and retrieved wearbushing.

The 9 5/8" casing was cut at 535 m MD in 7 hrs (Inc. RIH and POOH) using Weatherford cutting assembly with marine and annular swivel subs incorporated. Cut casing was pulled free with 50 MT overpull.

Well: 34/7-29SR

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
990226	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990227	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990228	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990301	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990302	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990303	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990304	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990305	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990306	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990307	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990308	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990309	PT#1		1.40	13.0	30.0	10/14	8.2	/				12.9	WATER BASED
990310	PT#1		1.40	12.0	32.0	10/12	7.8	/				13.0	WATER BASED
990311	PT#1		1.40	12.0	32.0	10/12	7.8	/				12.9	WATER BASED
990312	PT#1		1.40	12.0	32.0	10/12	7.8	/				12.9	WATER BASED
990313	PT#1		1.40	12.0	22.0	5/8	7.6	/				13.0	WATER BASED
990314	P&A		1.56	16.0	30.0	10/13	9.1	/				18.0	WATER BASED
990315	P&A		1.56	17.0	28.0	10/16	8.5	/				18.0	WATER BASED
990316	P&A					/		/					WATER BASED

Title
 Geochemical Evaluation of Well 34/7-29S

Author(s)
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Abstract
 This report consists of a standard geochemical study on source rocks, thermal maturity and migrated hydrocarbons encountered in well 34/7-29S.

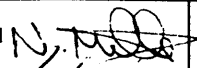

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Key words
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Classification:

Open Saga and partners Internal Confidential Strictly confidential

Resp. unit:					
Prepared	DPS				
Reviewed	NM 				
Approved	Top 				

1 Introduction

This report represents a standard geochemical study on the source rocks, maturity and possible migrated hydrocarbons encountered in well 34/7-29S.

The objectives of this study were to assess source rock potential of the sampled sections, evaluate maturity evolution through the well and identify and characterise encountered migrated hydrocarbons. The samples analysed are listed in Table 1.1 and the screening and molecular characterisation methods used are shown in Table 1.2. Analytical procedures were carried out following “The Norwegian Industry Guide to Organic Geochemical Analyses” (3rd edition, 1993), with the exception of TOC and Rock Eval measurements (see Table 1.2), which were performed using methods accredited by Saga. Vitrinite reflectance and gas isotope measurements were carried out by IFE, Kjeller, Norway. All other analytical work was performed at Robertson Research International Ltd., Llandudno, UK.

All depths listed in this report refer to measured depth RKB. A chrono- and lithostratigraphic breakdown of the drilled interval is shown in Table 1.3a and b.

2 Samples

Well 34/7-29S was sampled from first sample return at 1200 mRKB to TD at 2924 mRKB. Wet samples were selected for analysis in the interval 1200 - 2931 mRKB (TD). Lithological descriptions of the cutting samples are given in Table 2.1. Samples were also taken from the cores.

Table 1.2 Experimental Procedures

ANALYSIS	INSTRUMENT	METHOD	TEMPERATURE PROGRAM
Headspace gas	Perkin Elmer Sigma 3	NPD method	isothermal 110C
Occluded gas	Perkin Elmer Sigma 3	NPD method	isothermal 110C
TOC	Leco CS 125	OLS 1 *	
Rock Eval Pyrolysis	Rock Eval II	OLS 5 *	Cycle 1
Quantitative Extraction	Soxhtec Tecator 1043	NPD method	Boil 1 hr, rinse 2hrs (DCM:MeOH, 7:1)
Asphaltene precipitation		NPD method	
Iatroscan	Iatroscan Mk III	NPD method	
Hydrocarbon separation	Kontron HPLC	NPD method	
Alkane GC	HP5890a (on column)	NPD method	50C 3min, 5C/min to 300C, 300C 20 min.
Aromatic GC	AI 92	NPD method	80C 1min, 1C/min to 103C, 4C/min to 240C, 10C/min to 300C 20 min
Pyrolysis GC **	HP5790	NPD method	30C, 6C/min to 300C, 300C 20 min.
Whole Oil GC	HP5890	NPD method	-10C, 10C/min to 300C, 300C 20 min.
Alkane GC/MS	Finnegan 4000	NPD method	50C 1min, 15C/min to 210C, 2C/min to 300C 36 min.
Aromatic GC/MS	Finnegan 4000	NPD method	100C 1min, 10C/min to 310C 15 min.
Isotope analysis	sub contracted and run at Saga's request by IFE		

* - TOC and Rock Eval methods are comparable with NPD method. However we do not have Black Ven Marl. Consequently, the Rock Eval was calibrated with a standard related to Delsi IFP standard. In house check standards are run at greater frequency than prescribed in the NPD guidelines. Furthermore, both these methods are NAMAS accredited. Robertson Laboratories has been NAMAS accredited for the majority of it's geochemical services since 1991. NAMAS, an organisation established by the UK government, has reciprocal agreements with Norske Veritas. NAMAS accreditation is specifically designed for laboratory testing and is broadly based on ISO 9001. Robertson Laboratories were audited by Saga (Audit no. SAGA-93-110) and it's geochemical methods which are accredited by NAMAS were found to be satisfactory.

** - Pyrolysis GC analysis was subcontracted to LC² Chromatography Ltd.

Table 2.1 Lithology Descriptions

Well	Sample Name	Upper Depth	Lower Depth	Sample Type	Lithology Descriptions
34/7-29S	98017-1	1200.0	1200.0	Cuttings	Clyst, lt olv gy + 20% Clyst, lt brn gy + tr Lst, wht
34/7-29S	98017-2	1220.0	1220.0	Cuttings	Clyst, dk gy + 20% Lst, v lt gy
34/7-29S	98017-3	1240.0	1240.0	Cuttings	Clyst, dk gy + 20% Clyst, brn gy + 20% Lst, v lt gy
34/7-29S	98017-4	1260.0	1260.0	Cuttings	Clyst, dk gy + 20% Clyst, brn gy + 20% Lst, v lt gy + 10% Sd
34/7-29S	98017-5	1280.0	1280.0	Cuttings	Clyst, dk gy + 20% Clyst, brn gy + 10% Lst, v lt gy + mnr Sd
34/7-29S	98017-6	1300.0	1300.0	Cuttings	Clyst, brn gy + 20% Clyst, dk gy + 10% Lst, v lt gy + 10% Sd
34/7-29S	98017-7	1320.0	1320.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + 10% Clyst, lt olv gy + 10% Lst, v lt gy + 10% Sd
34/7-29S	98017-8	1340.0	1340.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + tr Lst, v lt gy + tr Sd
34/7-29S	98017-9	1360.0	1360.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + tr Lst, v lt gy + tr Sd
34/7-29S	98017-10	1380.0	1380.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + mnr Sd + tr Lst, v lt gy
34/7-29S	98017-11	1400.0	1400.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + 10% Sd + tr Lst, v lt gy
34/7-29S	98017-12	1420.0	1420.0	Cuttings	Clyst, brn gy + 20% Sst, v lt gy + 20% Sd
34/7-29S	98017-13	1440.0	1440.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + tr Lst, v lt gy
34/7-29S	98017-14	1460.0	1460.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + tr Lst, v lt gy
34/7-29S	98017-15	1480.0	1480.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + 30% mica & nut plug + tr Sd
34/7-29S	98017-16	1500.0	1500.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + 20% mica & nut plug + 10% Sd
34/7-29S	98017-17	1520.0	1520.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + 10% mica & nut plug + 10% Sd
34/7-29S	98017-18	1540.0	1540.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + 10% mica & nut plug + 10% Sd
34/7-29S	98017-19	1560.0	1560.0	Cuttings	Clyst, brn gy + 20% Clyst, olv gy + 10% Lst, v lt gy + 10% Sd + tr mica & nut plug
34/7-29S	98017-20	1580.0	1580.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + 10% Sd + tr Lst, v lt gy + tr mica & nut plug
34/7-29S	98017-21	1600.0	1600.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + 10% Sd + tr Lst, v lt gy
34/7-29S	98017-22	1620.0	1620.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + 10% Sd + tr Lst, v lt gy
34/7-29S	98017-23	1640.0	1640.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + tr Lst, v lt gy
34/7-29S	98017-24	1660.0	1660.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + tr Lst, v lt gy
34/7-29S	98017-25	1680.0	1680.0	Cuttings	Clyst, olv gy + 20% Clyst, brn gy + mnr Lst, v lt gy
34/7-29S	98017-26	1700.0	1700.0	Cuttings	Clyst, brn gy + 20% Clyst, v dsky rd + 10% Clyst, dk gn gy + tr Lst, v lt gy
34/7-29S	98017-27	1720.0	1720.0	Cuttings	Clyst, brn gy + 20% Clyst, v dsky rd + 10% Clyst, dk gn gy + tr Lst, v lt gy
34/7-29S	98017-28	1740.0	1740.0	Cuttings	Clyst, med dk gy + 20% Clyst, v dsky rd + 10% Clyst, lt olv gy + tr Lst, v lt gy
34/7-29S	98017-29	1760.0	1760.0	Cuttings	Clyst, med dk gy + 20% Clyst, lt olv gy + 10% Clyst, v dsky rd + 10% Lst, rd gy + tr Lst, v lt gy
34/7-29S	98017-30	1780.0	1780.0	Cuttings	Clyst, dk gy + 20% Clyst, brn gy + tr Clyst, v dsky rd + tr Lst, v lt gy
34/7-29S	98017-31	1800.0	1800.0	Cuttings	Clyst, dk gy + 20% Clyst, brn gy + tr Clyst, v dsky rd + tr Lst, v lt gy
34/7-29S	98017-32	1820.0	1820.0	Cuttings	Clyst, dk gy + 20% Clyst, brn gy + tr Clyst, v dsky rd + tr Lst, v lt gy
34/7-29S	98017-33	1840.0	1840.0	Cuttings	Clyst, lt olv gy + 10% Clyst, gy blk + tr Clyst, pa yel brn + tr Lst, wht
34/7-29S	98017-34	1860.0	1860.0	Cuttings	Clyst, lt olv gy + 10% Clyst, brn gy + tr Clyst, brn + tr Lst, wht
34/7-29S	98017-35	1880.0	1880.0	Cuttings	Clyst, lt olv gy + 20% Clyst, brn gy + tr Clyst, brn
34/7-29S	98017-36	1900.0	1900.0	Cuttings	Clyst, lt olv gy + 20% Clyst, brn gy, mic + tr Clyst, brn + tr Lst, wht

Table 2.1 Lithology Descriptions

Well	Sample Name	Upper Depth	Lower Depth	Sample Type	Lithology Descriptions
34/7-29S	98017-37	1920.0	1920.0	Cuttings	Clyst, lt med gy + 20% Clyst, brn gy, mic + tr Clyst, brn + tr Lst, wht
34/7-29S	98017-38	1930.0	1930.0	Cuttings	Clyst, med dk gy + 20% Clyst, brn gy, mic + 20% Clyst, lt med gy + tr Lst, v lt gy
34/7-29S	98017-39	1940.0	1940.0	Cuttings	Clyst, lt med gy + 20% Clyst, brn gy, mic + 20% Clyst, med dk gy + tr Lst, wht
34/7-29S	98017-40	1950.0	1950.0	Cuttings	Clyst, lt med gy + 20% Clyst, brn gy, mic + 20% Clyst, med dk gy + mnr Lst, wht
34/7-29S	98017-41	1960.0	1960.0	Cuttings	Clyst, med dk gy + 20% Clyst, brn gy, + 20% Lst, v lt gy
34/7-29S	98017-42	1970.0	1970.0	Cuttings	Clyst, brn gy + 20% Clyst, med dk gy + 20% Lst, v lt gy + tr Clyst, brn
34/7-29S	98017-43	1980.0	1980.0	Cuttings	Clyst, lt med gy + 20% Clyst, brn gy + 20% Clyst, brn + 10% Lst, v lt gy
34/7-29S	98017-44	1990.0	1990.0	Cuttings	Clyst, lt med gy + 20% Clyst, brn gy + 10% Lst, wht
34/7-29S	98017-45	2010.0	2010.0	Cuttings	Lst, lt gy + 20% Clyst, brn gy, + tr Clyst, brn + tr Lst, wht
34/7-29S	98017-46	2030.0	2030.0	Cuttings	Lst, lt gy + 20% Clyst, brn gy + 10% Lst, wht
34/7-29S	98017-47	2050.0	2050.0	Cuttings	Lst, lt gy + 20% Clyst, brn gy + 10% Clyst, v dsky rd + 10% Lst, wht
34/7-29S	98017-48	2060.0	2060.0	Cuttings	Lst, lt gy + 20% Clyst, brn gy + 20% Lst, v lt gy + 10% Clyst, v dsky rd
34/7-29S	98017-49	2070.0	2070.0	Cuttings	Lst, lt gy + 20% Clyst, brn gy + 20% Clyst, lt olv gy + 10% Clyst, v dsky rd + tr Lst, wht
34/7-29S	98017-50	2090.0	2090.0	Cuttings	Lst, lt gy + 20% Clyst, brn gy + 10% Clyst, lt olv gy + 10% Clyst, v dsky rd + tr Lst, wht
34/7-29S	98017-51	2110.0	2110.0	Cuttings	Lst, lt gy + 10% Clyst, brn gy + 10% Clyst, lt olv gy + tr Clyst, v dsky rd + tr Lst, wht
34/7-29S	98017-52	2130.0	2130.0	Cuttings	Lst, lt med gy + 10% Clyst, brn gy + 10% additive + 10% Lst, lt gy + tr Pyr + tr Lst, wht
34/7-29S	98017-53	2150.0	2150.0	Cuttings	Lst, med gy + 20% Clyst, brn gy + tr additive + tr Pyr + tr Lst, wht
34/7-29S	98017-54	2170.0	2170.0	Cuttings	Lst, med gy + 20% Clyst, brn gy + tr additive + tr Pyr + tr Lst, wht
34/7-29S	98017-55	2190.0	2190.0	Cuttings	Lst, med gy + 20% Clyst, brn gy + tr Lst, wht
34/7-29S	98017-56	2210.0	2210.0	Cuttings	Lst, med gy + 20% Clyst, brn gy + 20% additive
34/7-29S	98017-57	2230.0	2230.0	Cuttings	Lst, med gy + 20% Clyst, brn gy + 10% additive
34/7-29S	98017-58	2250.0	2250.0	Cuttings	Lst, med gy + 20% Clyst, brn gy + 10% additive + tr Lst, v lt gy
34/7-29S	98017-59	2270.0	2270.0	Cuttings	Lst, med gy + 20% Clyst, rd gy + tr Lst, v lt gy
34/7-29S	98017-60	2290.0	2290.0	Cuttings	Lst, med gy + 20% Lst, lt gy + tr Clyst, rd gy + tr Lst, v lt gy
34/7-29S	98017-61	2300.0	2300.0	Cuttings	Lst, med dk gy + 20% Lst, med gy + 10% Clyst, brn + tr Lst, lt olv gy
34/7-29S	98017-62	2310.0	2310.0	Cuttings	Lst, lt gy + 20% Lst, med dk gy + 10% Lst, lt olv gy + tr Clyst, brn
34/7-29S	98017-63	2320.0	2320.0	Cuttings	Lst, lt gy + 20% Clyst, rd gy + 20% Clyst, lt olv gy + tr Lst, pa yel brn
34/7-29S	98017-64	2340.0	2340.0	Cuttings	Lst, lt gy + 20% Clyst, rd gy + 20% Clyst, brn gy + tr Lst, v lt gy
34/7-29S	98017-65	2360.0	2360.0	Cuttings	Lst, lt med gy + 20% Clyst, brn gy + 20% Lst, lt gy + tr Clyst, rd gy
34/7-29S	98017-66	2380.0	2380.0	Cuttings	Lst, lt med gy + 20% Clyst, brn gy + 20% Lst, lt gy + tr Clyst, rd gy
34/7-29S	98017-67	2390.0	2390.0	Cuttings	Lst, lt med gy + 20% Clyst, gy blk + 20% Clyst, lt olv gy + tr Clyst, rd gy
34/7-29S	98017-68	2400.0	2400.0	Cuttings	Lst, lt med gy + 20% Clyst, gy blk + 20% Clyst, lt olv gy + 10% Clyst, rd gy
34/7-29S	98017-69	2420.0	2420.0	Cuttings	Lst, lt med gy + 20% Clyst, gy blk + 20% Clyst, lt olv gy + tr Clyst, rd gy
34/7-29S	98017-70	2440.0	2440.0	Cuttings	Lst, lt med gy + 20% Clyst, gy blk + 20% Clyst, lt olv gy + tr Clyst, rd gy + tr Lst, v lt gy
34/7-29S	98017-71	2460.0	2460.0	Cuttings	Lst, med dk gy + 20% Clyst, lt olv gy + 10% Clyst, gy blk + tr Lst, v lt gy
34/7-29S	98017-72	2480.0	2480.0	Cuttings	Lst, med dk gy + 20% Clyst, lt olv gy + 10% Clyst, gy blk + tr Lst, v lt gy

Table 2.1 Lithology Descriptions

Well	Sample Name	Upper Depth	Lower Depth	Sample Type	Lithology Descriptions
34/7-29S	98017-73	2500.0	2500.0	Cuttings	Lst, lt med gy + 20% Clyst, med dk gy + 10% Clyst, gy blk + 10% additive + tr Lst, v lt gy
34/7-29S	98017-74	2520.0	2520.0	Cuttings	Lst, lt med gy + 20% Clyst, med dk gy + 10% Clyst, gy blk + 10% additive + tr Lst, v lt gy
34/7-29S	98017-75	2540.0	2540.0	Cuttings	Lst, lt med gy + 20% Clyst, med dk gy + 10% Clyst, lt olv gy + tr Clyst, gy blk + tr Lst, wht
34/7-29S	98017-76	2550.0	2550.0	Cuttings	Lst, lt med gy + 20% Clyst, med dk gy + 20% Clyst, lt olv gy + tr Clyst, gy blk + tr Lst, wht
34/7-29S	98017-77	2560.0	2560.0	Cuttings	Lst, lt gy + 20% Lst, yel gy + tr Lst, v lt gy
34/7-29S	98017-78	2570.0	2570.0	Cuttings	Lst, yel gy + 20% Lst, lt gy + 10% additive + tr Clyst, med dk gy
34/7-29S	98017-79	2580.0	2580.0	Cuttings	Lst, yel gy + 20% Clyst, med dk gy + 10% Lst, lt gy + 10% additive
34/7-29S	98017-80	2590.0	2590.0	Cuttings	Lst, med dk gy + 20% Clyst, gy blk + 10% Lst, yel gy + 10% Lst, lt gy + tr additive
34/7-29S	98017-81	2600.0	2600.0	Cuttings	Lst, med dk gy + 10% Lst, lt gy + tr Lst, wht
34/7-29S	98017-82	2609.0	2609.0	Cuttings	Lst, med dk gy + 20% Lst, lt gy + 10% additive + tr Lst, yel gy
34/7-29S	98017-83	2618.0	2618.0	Cuttings	Clyst, gy blk + 20% Lst, med dk gy + tr Lst, v lt gy + tr additive
34/7-29S	98017-84	2627.0	2627.0	Cuttings	Clyst, gy blk + 20% Lst, med dk gy + tr Lst, v lt gy + tr additive
34/7-29S	98017-85	2636.0	2636.0	Cuttings	Clyst, gy blk + 20% Lst, med dk gy + tr Lst, v lt gy + tr additive
34/7-29S	98017-86	2654.0	2654.0	Cuttings	Clyst, gy blk + 20% Lst, lt med gy + tr Lst, yel gy
34/7-29S	98017-87	2672.0	2672.0	Cuttings	Lst, med dk gy + 20% Clyst, gy blk + tr Lst, yel gy
34/7-29S	98017-88	2681.0	2681.0	Cuttings	Lst, med dk gy + 20% Clyst, gy blk + tr Lst, yel gy + tr additive
34/7-29S	98017-89	2690.0	2690.0	Cuttings	Lst, med dk gy + 20% Clyst, gy blk + tr additive
34/7-29S	98017-90	2699.0	2699.0	Cuttings	Clyst, brn + 20% Lst, v pa org + 10% Clyst, med dk gy
34/7-29S	98017-91	2708.0	2708.0	Cuttings	Lst, v lt gy + tr Clyst, lt med gy
34/7-29S	98017-92	2717.0	2717.0	Cuttings	Clyst, lt med gy + 20% Lst, v lt gy + 10% additive
34/7-29S	98017-93	2726.0	2726.0	Cuttings	Lst, pa yel brn + 10% Clyst, med dk gy + 10% additive
34/7-29S	98017-94	2735.0	2735.0	Cuttings	Clyst, gy blk + 10% Lst, yel gy + 10% additive
34/7-29S	98017-95	2753.0	2753.0	Cuttings	Clyst, gy blk + 10% additive
34/7-29S	98017-96	2780.0	2780.0	Cuttings	Clyst, dk gy
34/7-29S	98017-97	2798.0	2798.0	Cuttings	Clyst, med dk gy + 10% additive
34/7-29S	98017-98	2807.0	2807.0	Cuttings	Clyst, med dk gy + tr additive
34/7-29S	98017-99	2816.0	2816.0	Cuttings	Clyst, med dk gy + 10% Clyst, lt med gy + tr additive
34/7-29S	98017-100	2825.0	2825.0	Cuttings	Clyst, med dk gy + 10% Clyst, lt med gy + tr additive
34/7-29S	98017-101	2843.0	2843.0	Cuttings	Clyst, gy blk + 20% Clyst, yel gy + tr additive
34/7-29S	98017-102	2861.0	2861.0	Cuttings	Clyst, med dk gy + 20% Clyst, lt med gy + tr Lst, v lt gy
34/7-29S	98017-103	2870.0	2870.0	Cuttings	Clyst, med dk gy + 20% Clyst, lt med gy + tr Lst, v lt gy + tr additive
34/7-29S	98017-104	2888.0	2888.0	Cuttings	Clyst, med dk gy + 20% Clyst, lt med gy
34/7-29S	98017-105	2906.0	2906.0	Cuttings	Clyst, lt gy + 20% Clyst, med dk gy + 10% Lst, v lt gy
34/7-29S	98017-106	2915.0	2915.0	Cuttings	Clyst, med dk gy + 20% Clyst, lt olv gy + 20% Lst, v lt gy
34/7-29S	98017-107	2924.0	2924.0	Cuttings	Lst, v lt gy + tr Clyst, med dk gy + tr Clyst, lt olv gy

Table 3.1 Rock-Eval data

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	S1 mg/g	S2 mg/g	S3 mg/g	Tmax deg C	TOC % wt
34/7-29	NOR	98017-133	2721.75	2721.75	Core	4.80	21.28	0.58	425	6.23
34/7-29	NOR	98017-134	2722.10	2722.10	Core	2.37	8.79	0.43	419	3.44
34/7-29	NOR	98017-135	2722.39	2722.39	Core	2.86	13.15	0.67	424	3.76
34/7-29	NOR	98017-136	2722.80	2722.80	Core	1.13	9.64	0.40	422	2.93
34/7-29	NOR	98017-137	2723.02	2723.02	Core	1.55	14.10	0.51	427	4.08
34/7-29	NOR	98017-138	2723.55	2723.55	Core	1.80	22.49	0.78	428	5.80
34/7-29	NOR	98017-139	2723.95	2723.95	Core	1.02	12.90	0.49	426	3.83
34/7-29	NOR	98017-140	2724.30	2724.30	Core	1.10	11.59	0.49	423	3.35
34/7-29	NOR	98017-141	2724.70	2724.70	Core	1.45	21.81	0.72	424	5.55
34/7-29	NOR	98017-94	2735.00	2735.00	Cuttings	2.79	17.60	2.18	421	5.19
34/7-29	NOR	98017-95	2753.00	2753.00	Cuttings	3.65	23.68	2.23	425	7.76
34/7-29	NOR	98017-96	2780.00	2780.00	Cuttings	2.24	7.48	3.66	432	5.21
34/7-29	NOR	98017-97	2798.00	2798.00	Cuttings	1.18	6.71	2.49	434	2.62
34/7-29	NOR	98017-98	2807.00	2807.00	Cuttings	1.55	8.35	2.60	433	2.96
34/7-29	NOR	98017-99	2816.00	2816.00	Cuttings	2.39	13.97	2.95	431	3.54
34/7-29	NOR	98017-100	2825.00	2825.00	Cuttings	3.22	15.05	3.31	429	3.68
34/7-29	NOR	98017-101	2843.00	2843.00	Cuttings	1.14	6.60	3.08	435	2.01
34/7-29	NOR	98017-102	2861.00	2861.00	Cuttings	1.11	4.24	3.00	428	2.13
34/7-29	NOR	98017-103	2870.00	2870.00	Cuttings	1.80	5.21	2.66	429	2.90
34/7-29	NOR	98017-104	2888.00	2888.00	Cuttings	2.04	5.60	3.02	433	3.86
34/7-29	NOR	98017-105	2906.00	2906.00	Cuttings	0.82	1.92	2.02	370	1.11
34/7-29	NOR	98017-106	2915.00	2915.00	Cuttings	0.84	2.23	2.06	431	1.52
34/7-29	NOR	98017-107	2924.00	2924.00	Cuttings	0.77	1.32	2.24	356	0.61

Table 3.2 Rock-Eval data

Well	Nation	Sample	Upper	Lower	Sample			
Name		Name	Depth	Depth	Type	HI	PI	PP
34/7-29	NOR	98017-133	2721.75	2721.75	Core	342	0.18	26
34/7-29	NOR	98017-134	2722.10	2722.10	Core	256	0.21	11
34/7-29	NOR	98017-135	2722.39	2722.39	Core	350	0.18	16
34/7-29	NOR	98017-136	2722.80	2722.80	Core	329	0.10	11
34/7-29	NOR	98017-137	2723.02	2723.02	Core	346	0.10	16
34/7-29	NOR	98017-138	2723.55	2723.55	Core	388	0.07	24
34/7-29	NOR	98017-139	2723.95	2723.95	Core	337	0.07	14
34/7-29	NOR	98017-140	2724.30	2724.30	Core	346	0.09	13
34/7-29	NOR	98017-141	2724.70	2724.70	Core	393	0.06	23
34/7-29	NOR	98017-94	2735.00	2735.00	Cuttings	339	0.14	20
34/7-29	NOR	98017-95	2753.00	2753.00	Cuttings	305	0.13	27
34/7-29	NOR	98017-96	2780.00	2780.00	Cuttings	144	0.23	10
34/7-29	NOR	98017-97	2798.00	2798.00	Cuttings	256	0.15	8
34/7-29	NOR	98017-98	2807.00	2807.00	Cuttings	282	0.16	10
34/7-29	NOR	98017-99	2816.00	2816.00	Cuttings	395	0.15	16
34/7-29	NOR	98017-100	2825.00	2825.00	Cuttings	409	0.18	18
34/7-29	NOR	98017-101	2843.00	2843.00	Cuttings	328	0.15	8
34/7-29	NOR	98017-102	2861.00	2861.00	Cuttings	199	0.21	5
34/7-29	NOR	98017-103	2870.00	2870.00	Cuttings	180	0.26	7
34/7-29	NOR	98017-104	2888.00	2888.00	Cuttings	145	0.27	8
34/7-29	NOR	98017-105	2906.00	2906.00	Cuttings	173	0.30	3
34/7-29	NOR	98017-106	2915.00	2915.00	Cuttings	147	0.27	3
34/7-29	NOR	98017-107	2924.00	2924.00	Cuttings	216	0.37	2

Table 4.1 Headspace gas data

Well	Sample Name	Upper Depth	Lower Depth	Sample Type	C1 PPM	C2 PPM	C3 PPM	iC4 PPM	nC4 PPM	C5+ PPM
34/7-29S	98017-1	1200.0	1200.0	Cuttings	EMPTY CAN					
34/7-29S	98017-2	1220.0	1220.0	Cuttings	8498.6	20.2	19.1	0.6	5.0	32.7
34/7-29S	98017-3	1240.0	1240.0	Cuttings	11697.9	32.0	12.3	0.5	5.0	5.9
34/7-29S	98017-4	1260.0	1260.0	Cuttings	6444.9	13.0	9.1		3.4	4.2
34/7-29S	98017-5	1280.0	1280.0	Cuttings	3272.8	6.3	6.3	0.8	3.7	3.7
34/7-29S	98017-6	1300.0	1300.0	Cuttings	3419.6	8.0	9.1	0.5	3.6	3.3
34/7-29S	98017-7	1320.0	1320.0	Cuttings	4720.3	19.7	9.7	0.1	4.5	5.4
34/7-29S	98017-8	1340.0	1340.0	Cuttings	7196.8	13.9	6.4		4.2	3.0
34/7-29S	98017-9	1360.0	1360.0	Cuttings	7291.3	8.3	5.6		3.5	3.5
34/7-29S	98017-10	1380.0	1380.0	Cuttings	6582.3	6.1	6.2		2.7	5.2
34/7-29S	98017-11	1400.0	1400.0	Cuttings	1136.8	2.0	0.5		0.5	0.6
34/7-29S	98017-12	1420.0	1420.0	Cuttings	259.2	0.8	0.7		0.4	0.3
34/7-29S	98017-13	1440.0	1440.0	Cuttings	35.7	0.5	0.9		0.4	0.1
34/7-29S	98017-14	1460.0	1460.0	Cuttings	863.7	1.6	1.0		0.3	0.8
34/7-29S	98017-15	1480.0	1480.0	Cuttings	262.1	0.6	0.7		0.4	0.5
34/7-29S	98017-16	1500.0	1500.0	Cuttings	237.5	2.3	1.1	0.2	0.4	0.4
34/7-29S	98017-17	1520.0	1520.0	Cuttings	685.7	10.0	1.9	1.1	0.5	0.5
34/7-29S	98017-18	1540.0	1540.0	Cuttings	4679.2	80.6	18.2	14.2	6.5	6.7
34/7-29S	98017-19	1560.0	1560.0	Cuttings	6165.9	135.1	25.3	25.7	8.4	7.0
34/7-29S	98017-20	1580.0	1580.0	Cuttings	1661.4	36.8	13.9	9.3	5.7	7.1
34/7-29S	98017-21	1600.0	1600.0	Cuttings	4182.4	104.5	24.0	31.0	10.6	14.0
34/7-29S	98017-22	1620.0	1620.0	Cuttings	7911.3	260.5	50.1	83.0	24.2	25.2
34/7-29S	98017-23	1640.0	1640.0	Cuttings	8704.2	321.5	62.2	117.2	32.9	38.2
34/7-29S	98017-24	1660.0	1660.0	Cuttings	1156.1	60.3	11.9	25.2	7.1	9.9
34/7-29S	98017-25	1680.0	1680.0	Cuttings	1218.2	105.7	23.0	49.4	13.5	20.8
34/7-29S	98017-26	1700.0	1700.0	Cuttings	7739.3	250.2	42.8	87.6	34.7	106.2
34/7-29S	98017-27	1720.0	1720.0	Cuttings	13673.5	688.7	111.7	282.4	101.9	323.1
34/7-29S	98017-28	1740.0	1740.0	Cuttings	10240.1	391.8	65.7	132.4	55.7	222.0
34/7-29S	98017-29	1760.0	1760.0	Cuttings	12464.3	909.7	198.9	708.2	248.0	1246.1
34/7-29S	98017-30	1780.0	1780.0	Cuttings	14503.5	1195.2	232.0	947.4	306.7	1737.0
34/7-29S	98017-31	1800.0	1800.0	Cuttings	9869.0	655.0	110.1	356.7	116.3	728.4
34/7-29S	98017-32	1820.0	1820.0	Cuttings	6196.1	783.8	106.5	354.6	85.3	543.3
34/7-29S	98017-33	1840.0	1840.0	Cuttings	9065.6	685.0	51.9	116.6	24.5	216.3
34/7-29S	98017-34	1860.0	1860.0	Cuttings	4390.7	328.4	38.3	83.2	20.2	171.3
34/7-29S	98017-35	1880.0	1880.0	Cuttings	3845.7	236.0	39.5	58.9	14.6	91.2
34/7-29S	98017-36	1900.0	1900.0	Cuttings	2751.9	188.5	46.4	51.1	13.6	84.1
34/7-29S	98017-37	1920.0	1920.0	Cuttings	3663.0	278.6	79.2	65.8	15.0	58.9
34/7-29S	98017-38	1930.0	1930.0	Cuttings	5618.7	341.4	80.4	57.8	15.4	71.5
34/7-29S	98017-39	1940.0	1940.0	Cuttings	5050.6	412.5	122.2	73.4	21.6	59.9
34/7-29S	98017-40	1950.0	1950.0	Cuttings	2416.8	181.1	55.2	33.5	14.1	42.6
34/7-29S	98017-41	1960.0	1960.0	Cuttings	5058.5	283.5	69.8	55.0	18.6	64.6
34/7-29S	98017-42	1970.0	1970.0	Cuttings	2507.0	197.6	66.9	31.8	15.1	36.1
34/7-29S	98017-43	1980.0	1980.0	Cuttings	6557.9	391.8	110.2	101.9	32.7	121.6
34/7-29S	98017-44	1990.0	1990.0	Cuttings	4081.5	288.0	98.0	66.2	23.2	57.8
34/7-29S	98017-45	2010.0	2010.0	Cuttings	3103.2	187.5	57.2	42.8	18.5	56.4
34/7-29S	98017-46	2030.0	2030.0	Cuttings	4303.4	267.1	84.8	58.1	25.4	80.0
34/7-29S	98017-47	2050.0	2050.0	Cuttings	4395.0	196.5	52.0	27.5	17.3	38.0
34/7-29S	98017-48	2060.0	2060.0	Cuttings	7292.1	376.9	79.4	62.2	25.6	105.1
34/7-29S	98017-49	2070.0	2070.0	Cuttings	2399.0	141.5	50.0	34.0	22.5	74.7
34/7-29S	98017-50	2090.0	2090.0	Cuttings	6635.8	589.7	219.5	69.8	45.4	90.6
34/7-29S	98017-51	2110.0	2110.0	Cuttings	3269.2	266.9	125.2	37.7	36.3	64.6
34/7-29S	98017-52	2130.0	2130.0	Cuttings	3192.6	320.1	145.3	24.5	27.5	32.2
34/7-29S	98017-53	2150.0	2150.0	Cuttings	7593.5	955.9	435.6	59.4	70.3	50.6
34/7-29S	98017-54	2170.0	2170.0	Cuttings	7746.4	1007.3	512.9	73.9	104.2	73.2
34/7-29S	98017-55	2190.0	2190.0	Cuttings	3151.5	374.8	257.5	37.9	59.5	32.0