2.3.2 *Kariman Field STOIIP Estimates*

The STOIIP estimates for each reservoir are tabulated from **Table 2-29** to **Table 2-33** and the Kariman Field total STOIIP volumes are shown in **Table 2-34**. **Figure 2-39** to **Figure 2-43** illustrate the depth structure maps used by RPS for the volumetric area estimates.

With respect to **Figure 2-39** to **Figure 2-43**, RPS recognizes that there are a few instances where the P50 Best and P10 High estimate areas cross-cut the contours (i.e.**Figure 2-39**), which may suggest some stratigraphic components, such as possible stratigraphic limits of the well developed platform limestone, and the clastic reservoirs. Therefore, these limits were invoked to determine the areas corresponding to these cases. It is also possible that the hydrocarbon pool distribution may be fault controlled, but not necessarily that the maps are wrong because RPS does not have enough well controls at the flanks of the fields. In some instances, these cross-cutting of the contours is deliberately done by RPS in order to constraint and estimate reasonable P50 Best and P10 High areas because of lack of well penetrations in the specific reservoirs at the flanks of the fields.

This is no different to the deterministic method employed by some evaluators such as Chapman, who prefers to use the well drainage radius area to determine the Proved ("P1"), Probable ("P2") and Possible ("P3") areas by stepping out using the well spacing method criteria. By the same argument, the well drainage area method employed by Chapman also results in cross-cutting the structural contours of the fields in questions. The Reserves Evaluator then determines the reasonableness of the areas given the current available well penetrations, 3D seismic and other pertinent data at the reference date of the evaluation. RPS believes that its method is somewhat conservative in its evaluation of the PIIP for those reservoirs in question.

Figure 2-44 shows the T2A carbonate 3D seismic time horizon interpretation (performed by BGP) and the southwest-northeast ("SW-NE") dip inline 4426 through the Kariman Field. **Figure 2-45** demonstrates the BGP's carbonate horizon T2B 3D seismic time interpretation, and the northwest-southeast ("NW-SE") strike crossline 1587 through the structure.

Table 2-29 – RPS Kariman Upper T3 Probabilistic STOIIP Estimates as of June 30, 2016

Kariman Field - Upper T3 Sands - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*400.0*	*982.0*	2,411.0	1,255.0
Thickness	ft	Normal	46.1	*63.4*	*80.7*	63.4
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
'Porosity	%	Normal	11.8	*13.8*	*15.8*	13.8
Sw	%	Normal	16.4	*19.4*	*22.4*	19.4
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**14.9**	**38.8**	**101.0**	**50.8**

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Table 2-30– RPS Kariman T2 Upper Probabilistic STOIIP Estimates as of June 30, 2016

Kariman Field - T2 Upper Sands - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	Acre	Lognor	*670.0*	*1,126.0*	*1,893.0*	1,223.0
Thickness	ft	Normal	*20.4*	*30.0*	*39.6*	30.0
Shape factor	%	Normal	*80.3*	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	*100.0*	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	*100.0*	*100.0*	*100.0*	100.0
Porosity	%	Normal	*9.5*	*10.7*	*11.9*	10.7
Sw	%	Normal	*19.9*	*23.9*	*27.9*	23.9
FVF (Bo)	rb/stb	Normal	*1.12*	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**8.0**	**15.4**	**28.6**	**17.2**

Table 2-31 – RPS Kariman T2A Probabilistic STOIIP Estimates as of June 30, 2016

Kariman Field - T2A Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*780.0*	*1,714.0*	3,766.0	2,070.0
Thickness	ft	Normal	64.1	*85.0*	*106.0*	85.0
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	5.0	*6.0*	*7.0*	6.0
Sw	%	Normal	19.9	*21.5*	*23.1*	21.5
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**16.4**	**38.5**	**90.1**	**47.6**

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Table 2-32 – RPS Kariman T2B Probabilistic STOIIP Estimates as of June 30, 2016

Kariman Field - T2B Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*1,465.0*	*1,851.0*	2,339.0	1,882.0
Thickness	ft	Normal	*77.7*	*92.4*	*107*	92.4
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	11.5	*12.6*	*13.7*	12.6
Sw	%	Normal	19.5	*21.5*	*23.5*	21.5
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**70.8**	**96.4**	**130.0**	**98.8**

Table 2-33 – RPS Kariman T2C Probabilistic STOIIP Estimates as of June 30, 2016

Kariman Field - T2C Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*963.0*	1,332.0	*1,843.0*	1,376.0
Thickness	ft	Normal	63.7	*82.0*	*100.0*	82.0
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	9.8	*11.4*	*13.0*	11.4
Sw	%	Normal	22.4	*24.8*	27.2	24.8
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**34.2**	**52.8**	**80.4**	**55.5**

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Table 2-34 – RPS Probabilistic STOIIP Estimates Summary - Kariman Field as of June 30, 2016

Kariman Field 100% Gross	RPS Probabilistic STOIIP Estimates - Kariman Field as of June 30, 2016			
Reservoir Unit	**P90 Low (MMstb)**	**P50 Best (MMstb)**	**P10 High (MMstb)**	**Mean (MMstb)**
Upper T3 Sands	14.900	38.800	101.000	50.800
T2 Upper Sands	8.000	15.400	28.600	17.200
T2A Carbonate	16.400	38.500	90.100	47.600
T2B Carbonate	70.800	96.400	130.000	98.800
T2C Carbonate	34.200	52.800	80.400	55.500
Kariman Field Total [1]	144.300	241.900	430.100	269.900

Notes:

1) *The totals shown are the arithmetic sums of the Low, Mid and High Estimates. Since there is a 90% probability that each individual pool will recover a volume greater than or equal to its Low or P90 value and the volume on each pool is only partially dependent then the total P90 field volume is statistically much higher than the arithmetic sum of individual pool P90 values. Similarly, the total P10 field volume is statistically less than the arithmetic sum of individual pool P10 values. Only the arithmetic sum of the mean volumes in each pool is statistically equal to the total mean volume of the field.*
2) *RPS probabilistic Monte Carlo simulations were run using REP™ v5.31b02 software.*

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2.3.3 *Dolinnoe Field STOIIP Estimates*

The STOIIP estimates for each reservoir are tabulated from **Table 2-35** and **Table 2-36. Table 2-37** provides the summary of STOIIP for the Dolinnoe Field. **Figure 2-46** to **Figure 2-47** illustrate the depth structure maps used by RPS for the volumetric area estimates. **Figure 2-48** shows the BGP's Dolinnoe T2B limestone 3D seismic time horizon interpretation, and the SW-NE dip inline 4066 through well Dolinnoe-112. **Figure 2-49** shows the BGP's T2C carbonate 3D seismic time horizon interpretation, and the NW-SE strike crossline 1883 through Dolinnoe Field.

Table 2-35 – RPS Dolinnoe T2B Probabilistic STOIIP Estimates as of June 30, 2016

Dolinnoe Field - T2B Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*560.0*	973.0	*1,692.0*	1,068.0
Thickness	ft	Normal	46.5	*67.1*	*87.7*	67.1
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	8.9	*10.2*	*11.5*	10.2
Sw	%	Normal	16.3	*19.3*	*22.3*	19.3
FVF (Bo)	rb/stb	Normal	1.79	*2.22*	*2.76*	2.25
STOIIP	**MMstb**	**N/A**	**7.59**	**15.3**	**30.4**	**17.6**

Table 2-36 – RPS Dolinnoe T2C Probabilistic STOIIP Estimates as of June 30, 2016

Dolinnoe Field - T2C Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	***Unit***	***Shape***	***P90***	***P50***	***P10***	***Mean***
Area	acre	Lognor	*541.0*	906.0	*1,516.0*	982.0
Thickness	ft	Normal	133	*151*	*169*	151
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	8.5	*9.6*	*10.7*	9.6
Sw	%	Normal	18.1	*21.5*	*24.9*	21.5
FVF (Bo)	rb/stb	Normal	1.79	*2.22*	*2.76*	2.25
STOIIP	**MMstb**	**N/A**	**16.9**	**30.3**	**54.5**	**33.7**

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Table 2-37 – RPS Probabilistic STOIIP Estimates Summary - Dolinnoe Field as of June 30, 2016

Dolinnoe Field 100% Gross	RPS Probabilistic STOIIP Estimates - Dolinnoe Field as of June 30, 2016			
Reservoir Unit	**P90 Low (MMstb)**	**P50 Best (MMstb)**	**P10 High (MMstb)**	**Mean (MMstb)**
T2B Carbonate	7.500	15.300	30.400	17.600
T2C Carbonate	16.900	30.300	54.500	33.700
Dolinnoe Field Total [1]	24.400	45.600	84.900	51.300

Notes:

1) *The totals shown are the arithmetic sums of the Low, Mid and High Estimates. Since there is a 90% probability that each individual pool will recover a volume greater than or equal to its Low or P90 value and the volume on each pool is only partially dependent then the total P90 field volume is statistically much higher than the arithmetic sum of individual pool P90 values. Similarly, the total P10 field volume is statistically less than the arithmetic sum of individual pool P10 values. Only the arithmetic sum of the mean volumes in each poll is statistically equal to the total mean volume of the field.*
2) *RPS probabilistic Monte Carlo simulations were run using REP™ v5.31b02 software.*

2.3.4 Yessen Field STOIIP Estimates

The STOIIP estimates for each reservoir are tabulated from **Table 2-38** to **Table 2-42** and **Table 2-43** provides the summary of STOIIP for the Yessen Field. **Figure 2-50** to **Figure 2-54** illustrates the depth structure maps used by RPS for the volumetric area estimates **Figure 2-55** shows the BGP's T2B carbonate 3D seismic time horizon interpretation, and the SW-NE dip inline 4250 through the Yessen Field.

With respect to **Figure 2-50** to **Figure 2-54**, RPS recognizes that there are a few instances where the P50 Best and P10 High estimate areas cross-cut the contours, **Figure 2-41** for example, which may suggest some stratigraphic components, such as possible stratigraphic limits of the well developed platform limestone, and the clastic reservoirs. Therefore, these limits were invoked to determine the areas corresponding to these cases. It is also possible that the hydrocarbon pool distribution may be fault controlled, but not necessarily that the maps are wrong because RPS does not have enough well controls at the flanks of the fields. In some instances, these cross-cutting of the contours is deliberately done by RPS in order to constraint and estimate reasonable P50 Best and P10 High areas because of lack of well penetrations in the specific reservoirs at the flanks of the fields.

This is no different to the deterministic method employed by some evaluators such as Chapman, who prefers to use the well drainage radius area to determine the Proved ("P1"), Probable ("P2") and Possible ("P3") areas by stepping out using the well spacing method criteria. By the same argument, the well drainage area method employed by Chapman also results in cross-cutting the structural contours of the fields in questions. The Reserves Evaluator then determines the reasonableness of the areas given the current available well penetrations, 3D seismic and other pertinent data at the reference date of the evaluation. RPS believes that its method is somewhat conservative in its evaluation of the PIIP for those reservoirs in question.

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Table 2-38 – RPS Yessen T2 Upper Probabilistic STOIIP Estimates as of June 30, 2016

Yessen Field - T2 Upper Sands - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*241.0*	322.0	*431.0*	331.0
Thickness	ft	Normal	57.4	*67.4*	*77.4*	67.4
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	*7.7*	*9.7*	*11.7*	9.7
Sw	%	Normal	31.3	*34.3*	*37.3*	34.3
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**5.21**	**7.82**	**11.5**	**8.16**

Table 2-39 – RPS Yessen T2A Probabilistic STOIIP Estimates as of June 30, 2016

Yessen Field - T2A Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	304.0	434.0	*619.0*	451.0
Thickness	ft	Normal	104	*126*	*148*	126
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	7.2	*8.7*	*10.2*	8.7
Sw	%	Normal	20.9	*23.9*	*26.9*	23.9
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**10.0**	**17.6**	**31.0**	**19.4**

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Table 2-40 – RPS Yessen T2B Probabilistic STOIIP Estimates as of June 30, 2016

Yessen Field - T2B Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	393.0	491.0	*614.0*	499.0
Thickness	ft	Normal	98.5	*113.0*	*127.0*	113
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	8.4	*9.5*	*10.6*	9.5
Sw	%	Normal	25.6	*26.7*	*27.8*	26.7
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**10.6**	**17.4**	**28.5**	**18.7**

Table 2-41 – RPS Yessen T2C Probabilistic STOIIP Estimates as of June 30, 2016

Yessen Field - T2C Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*445.0*	551.0	*682.0*	559.0
Thickness	ft	Normal	133	*151*	*162*	151
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	4.9	*5.9*	*6.9*	5.9
Sw	%	Normal	14.8	*17.8*	*20.8*	17.8
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**9.78**	**17.1**	**29.8**	**18.7**

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Table 2-42 – RPS Yessen T1 Probabilistic STOIIP Estimates as of June 30, 2016

Yessen Field - T1 Carbonate - RPS Probabilistic STOIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*194.0*	260.0	*349.0*	267.0
Thickness	ft	Normal	36.0	*46.0*	*56.0*	46.0
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	13.9	*15.7*	*17.4*	15.7
Sw	%	Normal	6.6	*11.6*	*16.6*	11.6
FVF (Bo)	rb/stb	Normal	1.12	*1.15*	*1.18*	1.15
STOIIP	**MMstb**	**N/A**	**6.28**	**9.38**	**13.8**	**9.77**

Table 2-43 – RPS Probabilistic STOIIP Estimates Summary - Yessen Field as of June 30, 2016

Yessen Field	**RPS Probabilistic STOIIP Estimates - Yessen Field as of June 30, 2016**			
Reservoir Unit	**P90 Low (MMstb)**	**P50 Best (MMstb)**	**P10 High (MMstb)**	**Mean (MMstb)**
T2 Upper Sands	5.210	7.820	11.500	8.160
T2A Carbonate	10.000	17.600	31.000	19.400
T2B Carbonate	10.600	17.400	28.500	18.700
T2C Carbonate	9.780	17.100	29.800	18.700
T1 Carbonate	6.280	9.380	13.800	9.770
Yessen Field Total[1]	41.870	69.300	114.600	74.730

Notes:

1) *The totals shown are the arithmetic sums of the Low, Mid and High Estimates. Since there is a 90% probability that each individual pool will recover a volume greater than or equal to its Low or P90 value and the volume on each pool is only partially dependent then the total P90 field volume is statistically much higher than the arithmetic sum of individual pool P90 values. Similarly, the total P10 field volume is statistically less than the arithmetic sum of individual pool P10 values. Only the arithmetic sum of the mean volumes in each poll is statistically equal to the total mean volume of the field.*
2) *RPS probabilistic Monte Carlo simulations were run using REP™ v5.31b02 software.*

2.3.5 *Minor Oil Fields STOIIP Audit Calculation Methodology*

For the other minor oil fields (Emir and North Kariman), RPS's estimates are based on scaling (up or down) from the Chapman's field estimates for the Low and Best Estimates. For the High Estimates of Emir and North Kariman fields, the RPS's Best Estimate STOIIP was scaled up based on the ratio of RPS's High to Best Estimates STOIIP of the major oil fields evaluated by RPS (refer to **Table 2-44**).

Chapman estimated that those minor oil fields only contain approximately15.6% of the Emir-Oil Concession Block Proved Plus Probable ("2P") STOIIP volumes. Based on the RPS's STOIIP audit results of the major oil fields, the minor oil fields' scale factors were as follows:

- The Low Estimate STOIIP scale factor is 1.2032 which implies that the RPS's STOIIP is about +20.3% higher than the Chapman's Low (1P) Estimate STOIIP.
- The Best Estimate STOIIP scale factor is 1.1798, which suggests that RPS's STOIIP is +18.0% lower than Chapman's Best Estimate (2P) STOIIP.
- The High Estimate STOIIP scale factor is 1.7647 derived from the ratio of RPS's High to Best Estimates STOIIP of the major fields. This implies that the RPS's High Estimate STOIIP is about +76.5% higher that it's Best Estimate STOIIP.

Table 2-44 – Emir-Oil Concession Block Grand Total STOIIP Estimates and Minor Oil Fields Scaled STOIIP as of June 30, 2016

Fields	Chapman (MMstb)			RPS (MMstb)		
	Low	Best	High	Low	Best	High
Dolinnoe	38.048	40.666	41.717	24.400	45.600	84.900
Kariman	132.391	208.894	212.497	144.300	241.900	430.100
Yessen	4.566	52.835	75.082	41.870	69.280	114.600
Total	**175.01**	**302.40**	**329.30**	**210.570**	**356.780**	**629.600**
Ratio				**1.2032**	**1.1798**	**1.7647**
Emir	10.82	31.45	52.51	13.014	37.102	65.472
N. Kariman	10.64	24.59	27.78	12.797	29.008	51.190
Grand Total	**196.46**	**358.43**	**409.59**	**236.381**	**422.890**	**746.262**

For completeness, the BGP's Emir T2A limestone depth structure map is shown in **Figure 2-56**. The T2B carbonate 3D seismic time horizon interpretation and SW-NE dip inline 3754 through the Emir Field are shown in **Figure 2-57**. The BGP's T2C limestone 3D seismic time horizon interpretation, and NW-SE 3D seismic strike crossline 2059 through Emir Field are included in **Figure 2-58**.

The North Kariman Field BGP's T2C depth map (**Figure 2-59**), T2C 3D seismic time horizon interpretation and SW-NE dip inline 4262 are illustrated in **Figure 2-60**.

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2.3.6 *Aksaz Field GIIP and CIIP Estimates*

The Aksaz Field is a gas-condensate field and only gas and condensate are currently being produced. However, Chapman has treated this field as an oil field and estimated the STOIIP volumes instead of the Gas Initially In-Place ("GIIP") and Condensate Initially In-Place ("CIIP") volumes. RPS has treated this field as a gas-condensate field and as such has estimated the CIIP and GIIP volumes from the Aksaz Field.

RPS's GIIP and CIIP estimates for each reservoir are tabulated from **Table 2-45** to

Table 2-50. **Table 2-51** and **Table 2-52** provide the summary of GIIP and CIIP, respectively for the Aksaz Field. **Figure 2-61** to **Figure 2-63** illustrated the depth structure maps used by RPS for the volumetric area estimates. **Figure 2-64** shows the BGP's T2B limestone 3D seismic time horizon interpretation, and the dip inline 3690 through the Aksaz Field. **Figure 2-65** shows the T2C carbonate seismic time horizon interpretation and the NW-SE strike crossline 1775 through the Aksaz Field.

Table 2-45 – RPS Aksaz T2B Probabilistic GIIP and CIIP Estimates as of June 30, 2016

Aksaz Field - T2B Carbonate - RPS Probabilistic GIIP and CIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*327.0*	407.0	*507.0*	413.0
Thickness	ft	Normal	37.8	*42.7*	*47.6*	42.7
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	5.5	*7.7*	*9.9*	7.7
Sw	%	Normal	9.13	*10.6*	*11.7*	11.7
Wet gas FVF (1/Bg)	scf/rcf	Normal	275.0	*287.0*	*300.0*	287.0
Cond/gas ratio	stb/MMscf	Normal	126.0	*153.0*	*185.0*	154.0
GIIP	**Bscf**	**N/A**	**8.14**	**12.4**	**17.9**	**12.8**
CIIP	**MMstb**	**N/A**	**1.20**	**1.91**	**2.89**	**1.99**

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Table 2-46 – RPS Aksaz T2C Probabilistic GIIP and CIIP Estimates as of June 30, 2016

Aksaz Field - T2C Carbonate - RPS Probabilistic GIIP and CIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*135.0*	405.0	*1,218.0*	586.0
Thickness	ft	Normal	21.2	*28.7*	*36.2*	28.7
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	6.1	*7.1*	*8.1*	7.1
Sw	%	Normal	13.8	*16.7*	*19.6*	16.7
Wet gas FVF (1/Bg)	scf/rcf	Normal	275.0	*287.0*	*300.0*	287.0
Cond/gas ratio	stb/MMscf	Normal	126.0	*153.0*	*185.0*	154.0
GIIP	**Bscf**	**N/A**	**2.25**	**7.14**	**22.3**	**10.4**
CIIP	**MMstb**	**N/A**	**0.342**	**1.10**	**3.48**	**1.63**

Table 2-47 – RPS Aksaz T2C-1 Probabilistic GIIP and CIIP Estimates as of June 30, 2016

Aksaz Field - T2C-1 Carbonate - RPS Probabilistic GIIP and CIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*135.0*	405.0	*1,218.0*	586.0
Thickness	ft	Normal	24.8	*42.4*	*60.0*	42.4
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	6.9	*7.9*	*8.9*	7.9
Sw	%	Normal	8.1	*9.5*	*10.9*	9.5
Wet gas FVF (1/Bg)	scf/rcf	Normal	275.0	*287.0*	*300.0*	287.0
Cond/gas ratio	stb/MMscf	Normal	126.0	*153.0*	*185.0*	154.0
GIIP	**Bscf**	**N/A**	**3.62**	**12.4**	**40.3**	**18.6**
CIIP	**MMstb**	**N/A**	**0.550**	**1.92**	**6.31**	**2.9**

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Table 2-48 – RPS Aksaz T2C-2 Probabilistic GIIP and CIIP Estimates as of June 30, 2016

Aksaz Field - T2C-2 Carbonate - RPS Probabilistic GIIP and CIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*135.0*	405.0	*1,218.0*	586.0
Thickness	ft	Lognor	22.5	*30.0*	*40.0*	30.8
Shape factor	%	Lognor	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Lognor	10.80	*12.50*	*14.50*	12.60
Sw	%	Lognor	16.2	*18.0*	*20.0*	18.1
Wet gas FVF (1/Bg)	scf/rcf	Lognor	275.0	*287.0*	*300.0*	287.0
Cond/gas ratio	stb/MMscf	Lognor	126.0	*153.0*	*185.0*	154.0
GIIP	**Bscf**	**N/A**	**4.164**	**13.310**	**41.680**	**19.490**
CIIP	**MMstb**	**N/A**	**0.631**	**2.031**	**6.440**	**3.017**

Table 2-49 – RPS Aksaz T2C-3 Probabilistic GIIP and CIIP Estimates as of June 30, 2016

Aksaz Field - T2C-3 Carbonate - RPS Probabilistic GIIP and CIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*135.0*	405.0	*1,218.0*	586.0
Thickness	ft	Normal	31.8	*33.8*	*35.8*	33.8
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	6.2	*8.3*	*10.4*	8.3
Sw	%	Normal	16.7	*17.1*	*17.5*	17.1
Wet gas FVF (1/Bg)	scf/rcf	Normal	275.0	*287.0*	*300.0*	287.0
Cond/gas ratio	stb/MMscf	Normal	126.0	*153.0*	*185.0*	154.0
GIIP	**Bscf**	**N/A**	**3.11**	**9.76**	**30.5**	**134.3**
CIIP	**MMstb**	**N/A**	**0.473**	**1.51**	**4.79**	**2.23**

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Table 2-50 – RPS Aksaz T1 Probabilistic GIIP and CIIP Estimates as of June 30, 2016

Aksaz Field - T1 Carbonate - RPS Probabilistic GIIP and CIIP Summary as of June 30, 2016 (100% Gross Licence Interest Basis)						
Parameter	**Unit**	**Shape**	**P90**	**P50**	**P10**	**Mean**
Area	acre	Lognor	*65.0*	97.7	*147.0*	103.0
Thickness	ft	Normal	8.8	*11.5*	*15.0*	11.7
Shape factor	%	Normal	80.3	*85.0*	*90.0*	85.1
Deg. of fill	%	Single	100.0	*100.0*	*100.0*	100.0
Net-to-gross	%	Single	100.0	*100.0*	*100.0*	100.0
Porosity	%	Normal	13.20	*15.00*	*17.00*	15.10
Sw	%	Normal	12.5	*15.0*	*18.0*	15.2
Wet gas FVF (1/Bg)	scf/rcf	Normal	275.0	*287.0*	*300.0*	287.0
Cond/gas ratio	stb/MMscf	Normal	126.0	*153.0*	*185.0*	154.0
GIIP	**Bscf**	**N/A**	**0.849**	**1.49**	**2.50**	**1.60**
CIIP	**MMstb**	**N/A**	**0.126**	**0.229**	**0.398**	**0.250**

Table 2-51 – RPS Probabilistic GIIP Estimates Summary - Aksaz Field as of June 30, 2016

Gas Initially In-Place (GIIP)	**RPS Probabilistic GIIP Estimates - Aksaz Field as of June 30, 2016**			
Reservoir Unit	**P90 Low (Bscf)**	**P50 Best (Bscf)**	**P10 High (Bscf)**	**Mean (Bscf)**
T2B Carbonate	8.140	12.400	17.900	12.800
T2C Carbonate	2.250	7.140	22.300	10.400
T2C-1 Carbonate	3.620	12.400	40.300	18.600
T2C-2 Carbonate	4.164	13.310	41.680	19.490
T2C-3 Carbonate	3.110	9.760	30.500	14.300
T1 Carbonate	0.849	1.490	2.500	1.600
Aksaz Field Total [1]	**22.133**	**56.500**	**155.180**	**77.190**

Notes:

1) *The totals shown are the arithmetic sums of the Low, Mid and High Estimates. Since there is a 90% probability that each individual pool will recover a volume greater than or equal to its Low or P90 value and the volume on each pool is only partially dependent then the total P90 field volume is statistically much higher than the arithmetic sum of individual pool P90 values. Similarly, the total P10 field volume is statistically less than the arithmetic sum of individual pool P10 values. Only the arithmetic sum of the mean volumes in each poll is statistically equal to the total mean volume of the field.*
2) *RPS probabilistic Monte Carlo simulations were run using REP™ v5.31b02 software.*

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Table 2-52 – RPS Probabilistic CIIP Estimates Summary - Aksaz Field as of June 30, 2016

Condensate Initially In-Place (CIIP)	**RPS Probabilistic CIIP Estimates - Aksaz Field as of June 30, 2016**			
Reservoir Unit	**P90 Low (MMstb)**	**P50 Best (MMstb)**	**P10 High (MMstb)**	**Mean (MMstb)**
T2B Carbonate	1.200	1.910	2.890	1.990
T2C Carbonate	0.342	1.100	3.480	1.630
T2C-1 Carbonate	0.657	2.167	7.019	3.269
T2C-2 Carbonate	0.631	2.031	6.440	3.017
T2C-3 Carbonate	0.473	1.510	4.790	2.230
T1 Carbonate	0.126	0.229	0.390	0.250
Aksaz Field Total [1]	**3.322**	**8.700**	**24.300**	**12.017**

Notes:

1) *The totals shown are the arithmetic sums of the Low, Mid and High Estimates. Since there is a 90% probability that each individual pool will recover a volume greater than or equal to its Low or P90 value and the volume on each pool is only partially dependent then the total P90 field volume is statistically much higher than the arithmetic sum of individual pool P90 values. Similarly, the total P10 field volume is statistically less than the arithmetic sum of individual pool P10 values. Only the arithmetic sum of the mean volumes in each poll is statistically equal to the total mean volume of the field.*
2) *RPS probabilistic Monte Carlo simulations were run using REP™ v5.31b02 software.*

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2.3.7 *Emir-Oil Concession Block STOIIP, GIIP and CIIP Summary*

Table 2-53 shows the overall grand total Emir-Oil Concession Block STOIIP estimates for the producing and discovered fields.

Table 2-53 – Emir-Oil Concession Block 100% Gross Total STOIIP Estimates

	RPS Estimates as of June 30, 2016		
Field	**P90 Low (MMstb)**	**P50 Best (MMstb)**	**P10 High (MMstb)**
Dolinnoe [1]	24.4	45.6	84.9
Kariman [1]	144.3	241.9	430.1
Yessen [1]	41,87	69.28	114.6
Emir [2]	14.87	66.12	116.69
North Kariman [2]	14.87	28.06	49.51
Grand Total [3]	**232.93**	**450.96**	**795.8**

Notes:

1) *RPS utilised Monte Carlo simulation technique using REP™ v5.31b02 software to derive its probabilistic STOIIP volumes for the Dolinnoe, Kariman and Yessen fields.*
2) *RPS's volumes for the Emir and North Kariman fields were derived by scaling up or down from the Chapman's volumes, using the scale factors determined from the three main fields (Dolinnoe, Kariman and Yessen) evaluated by RPS. The three main fields (Dolinnoe, Kariman and Yessen) total Best Estimate STOIIP covers about 79% of the Chapman's Total 2P STOIIP estimates.*
3) *Arithmetic total from sums of all of the above fields' reservoir layers.*

The Emir-Oil Concession Block GIIP and CIIP volumes in the Aksaz Field Production Contract are summarised in **Table 2-54** and **Table 2-55**, respectively.

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Table 2-54 – Aksaz Field RPS 100% Gross GIIP Probabilistic Estimates

Gas Initially In-Place (GIIP)	RPS Probabilistic GIIP Estimates - Aksaz Field as of June 30, 2016			
Reservoir Unit	**P90 Low (Bscf)**	**P50 Best (Bscf)**	**P10 High (Bscf)**	**Mean (Bscf)**
T2B Carbonate	8.140	12.400	17.900	12.800
T2C Carbonate	2.250	7.140	22.300	10.400
T2C-1 Carbonate	3.620	12.400	40.300	18.600
T2C-2 Carbonate	4.164	13.310	41.680	19.490
T2C-3 Carbonate	3.110	9.760	30.500	14.300
T1 Carbonate	0.849	1.490	2.500	1.600
Aksaz Field Total [1]	**22.133**	**56.500**	**155.180**	**77.190**

Notes:

1) *The totals shown are the arithmetic sums of the Low, Mid and High Estimates. Since there is a 90% probability that each individual pool will recover a volume greater than or equal to its Low or P90 value and the volume on each pool is only partially dependent then the total P90 field volume is statistically much higher than the arithmetic sum of individual pool P90 values. Similarly, the total P10 field volume is statistically less than the arithmetic sum of individual pool P10 values. Only the arithmetic sum of the mean volumes in each poll is statistically equal to the total mean volume of the field.*
2) *RPS probabilistic Monte Carlo simulations were run using REP™ v5.31b02 software.*

Table 2-55 – Aksaz Field RPS 100% Gross CIIP Probabilistic Estimates

Condensate Initially In-Place (CIIP)	RPS Probabilistic CIIP Estimates - Aksaz Field as of June 30, 2016 (MMstb)			
Reservoir Unit	**P90 Low (MMstb)**	**P50 Best (MMstb)**	**P10 High (MMstb)**	**Mean (MMstb)**
T2B Carbonate	1.200	1.910	2.890	1.990
T2C Carbonate	0.342	1.100	3.480	1.630
T2C-1 Carbonate	0.550	1.920	6.310	2.900
T2C-2 Carbonate	0.631	2.031	6.440	3.017
T2C-3 Carbonate	0.473	1.510	4.790	2.230
T1 Carbonate	0.126	0.229	0.390	0.250
Aksaz Field Total [1]	**3.322**	**8.700**	**24.300**	**12.017**

Notes:

1) *The totals shown are the arithmetic sums of the Low, Mid and High Estimates. Since there is a 90% probability that each individual pool will recover a volume greater than or equal to its Low or P90 value and the volume on each pool is only partially dependent then the total P90 field volume is statistically much higher than the arithmetic sum of individual pool P90 values. Similarly, the total P10 field volume is statistically less than the arithmetic sum of individual pool P10 values. Only the arithmetic sum of the mean volumes in each poll is statistically equal to the total mean volume of the field.*
2) *RPS probabilistic Monte Carlo simulations were run using REP™ v5.31b02 software.*

2.3.8 Borly Structure

The Borly Structure had already been drilled by two wells (Borly-2 and Borly-2ST1). The Borly-2 reportedly encountered some hydrocarbon shows in the Triassic reservoirs between the interval of 2916.7 – 2994.6 m MDKB. The Operator re-entered the Borly-2 well in 2012 and sidetracked this well as Borly-2ST1. The Triassic reservoirs were tested but did not flow any commercial hydrocarbon to surface despite being acid-frac and Nitrogen gas lifted. Therefore, RPS did not book any reserves in the Borly structure. Examples of the Chapman's map and well logs analysis over the Triassic reservoirs in this structure are illustrated in **Figure 2-66** and **Figure 2-67**, respectively.

2.3.9 Emir-Oil Concession Block Prospective Resources

The Operator has identified several prospects. The prospects include areas within the current production contracts (Aksaz, Dolinnoe, Emir and Kariman) as well as the areas outside the production contracts (Borly, Begesh, East Saura, Aidai, North Aidai, and Tanirbergen) within the exploration contract areas. These can be referenced in **Figure 2-68** to **Figure 2-76**.

Chapman has estimated the prospective resources volumes in its report and these are included in **Table 2-56** below. RPS did not independently evaluate any of these prospects hence did not opine on the Prospective Resources volumes and risks (presence and effectiveness of the reservoirs, trap, seal, source rock maturity, hydrocarbon migration and timing), nor ascribe any monetary values to any of the prospects in the IVR.

Previously, Chapman[4] reported Unrisked Prospective Resources of 167.202, 222.936, and 278.672 MMstb for the Low, Best and High scenarios in the Chapman 2015 Report. Comparing the two reports RPS notes that:

1) Chapman has decreased the Kariman Prospect STOIIP from 233.796 MMstb in the Chapman 2115 Report to 221.419 MMstb in the Chapman Report. Consequently, the Unrisked Low, Best and High Estimates Prospective Resources volumes have been reduced from 35.069 to 33.213 MMstb, 46.759 to 44.284 MMstb and 58.449 to 55.355 MMstb, respectively.
2) In the Chapman Report, Chapman has decreased the Begesh Prospect STOIIP from 76.976 to 49.423 MMstb. The Unrisked Low, Best and High Estimates Prospective Resources volumes were also reduced from 11.546 to 7.413 MMstb, 15.395 to 9.885 MMstb and 19.244 to 12.356 MMstb, respectively. However, Chapman has increased the Geological Chance of Success ("GCOS") from 18% to 21% in the Chapman Report.
3) Chapman has decreased the East Saura Prospect STOIIP from 65.156 MMstb down to 41.834 MMstb in the Chapman report. Resulting in the Unrisked Low, Best and High Estimates Prospective Resources volumes being reduced from 9.773 to 6.275, 13.031 to 8.367 and 16.289 to 10.458 MMstb, respectively. However, Chapman has increased the GCOS from 18% to 21% in the Chapman Report.
4) In Chapman Report, the North Aidai Prospect has been replaced with Aidai (AD-A1, AD-A2) Prospect. Chapman has increased the Aidai Prospect STOIIP from 29.599 to 314.063 MMstb. The Unrisked Low, Best and High Estimates Prospective Resources volumes are also increased from 4.440 to 47.109 MMstb, 5.920 to 62.813 MMstb and 7.400 to 78.516 MMstb, respectively. In addition, Chapman has increased the GCOS from 18% to 21%.
5) Chapman has decreased the Tanirbergen Prospect STOIIP from 159.814 down to 102.610 MMstb in the Chapman report. Consequently, the Unrisked Low, Best and High Estimates Prospective Resources volumes are reduced from 23.972 to 15.392 MMstb, 31.963 to 20.522 and 39.954 to 25.653 MMstb, respectively. However, Chapman has increased the GCOS from 18% to 21% in the Chapman Report.

4 As reported in Appendix A "Reserve and Economic Evaluation Oil and Gas Properties ADEK Block Republic of Kazakhstan January 1, 2015 by Chapman Petroleum Engineering Ltd.

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Table 2-56 – Emir-Oil Concession Block Unrisked Gross 100% Licence Interest Prospective Resources Summary as of January 1, 2016 (from Chapman Report)

Chapman Estimates as of January 1, 2016 [1]						
ADEK Block and NW Areas		**Single Estimate**	**Unrisked Prospective Resources**			
Prospective Area	**Prospective Zones [2]**	**STOIIP (MMstb) [3]**	**Low (MMstb)**	**Best (MMstb)**	**High (MMstb)**	**GCOS (%) [4]**
ADEK Block						
Aksaz	Combined Triassic	41.700	6.255	8.340	10.425	34%
Borly	Combined Triassic	257.931	38.690	51.586	64.483	24%
Dolinnoe	Combined Triassic	133.110	19.967	26.622	33.278	34%
Emir	Combined Triassic	116.601	17.490	23.320	29.150	22%
Kariman	Combined Triassic	221.419	33.213	44.284	55.355	34%
	Total	770.762	115.614	154.152	192.691	
NW Areas						
Begesh	Combined Triassic	49.423	7.413	9.885	12.356	21%
East Saura	Combined Triassic	41.834	6.275	8.367	10.458	21%
Aidai and North Aidai	Combined Triassic	314.063	47.109	62.813	78.516	21%
Tanirbergen	Combined Triassic	102.610	15.392	20.522	25.653	21%
	Total	507.931	76.190	101.586	126.982	
	Grand Total [5]	1,278.693	191.804	255.738	319.673	

Notes:

1) *As reported in Appendix A "Evaluation of Reserve and Prospective Resources Oil and Gas Properties, ADEK Block (Licence Area), Mangistau Oblast, Republic of Kazakhstan for MIE Holdings Corporation, December 31, 2015 (January 1, 2016)", Chapman Petroleum Engineering Ltd.*
2) *The "Combined Triassic" prospective zones include multiple prospective reservoir layers.*
3) *Chapman only provide a single estimate STOIIP volume for each prospect, for all the Low, Best and High Estimates cases combined with a constant 15%, 20% and 25% recovery factor for the Low, Best and High scenarios, respectively.*
4) *GCOS means "Geological Chance of Success".*
5) *Arithmetic total from sums of all of the above identified prospects.*

MIE's business update to investors dated June 15, 2016 announced that MIE's subsidiary, Emir-Oil LLP, first exploration well in the Aidai block ("Aidai- 1") was a discovery. The well was completed in June 2015 at a total depth of 5,080m and confirmed the presence of oil and gas bearing reservoirs in Triassic sandstone formation. The well flowed 47 stb/d oil and 790 Mscf/d from the interval 3,704–3,766 m. The Operator reports that logs indicate oil and gas shows in other Triassic sandstone intervals and intends to test these intervals sequentially.

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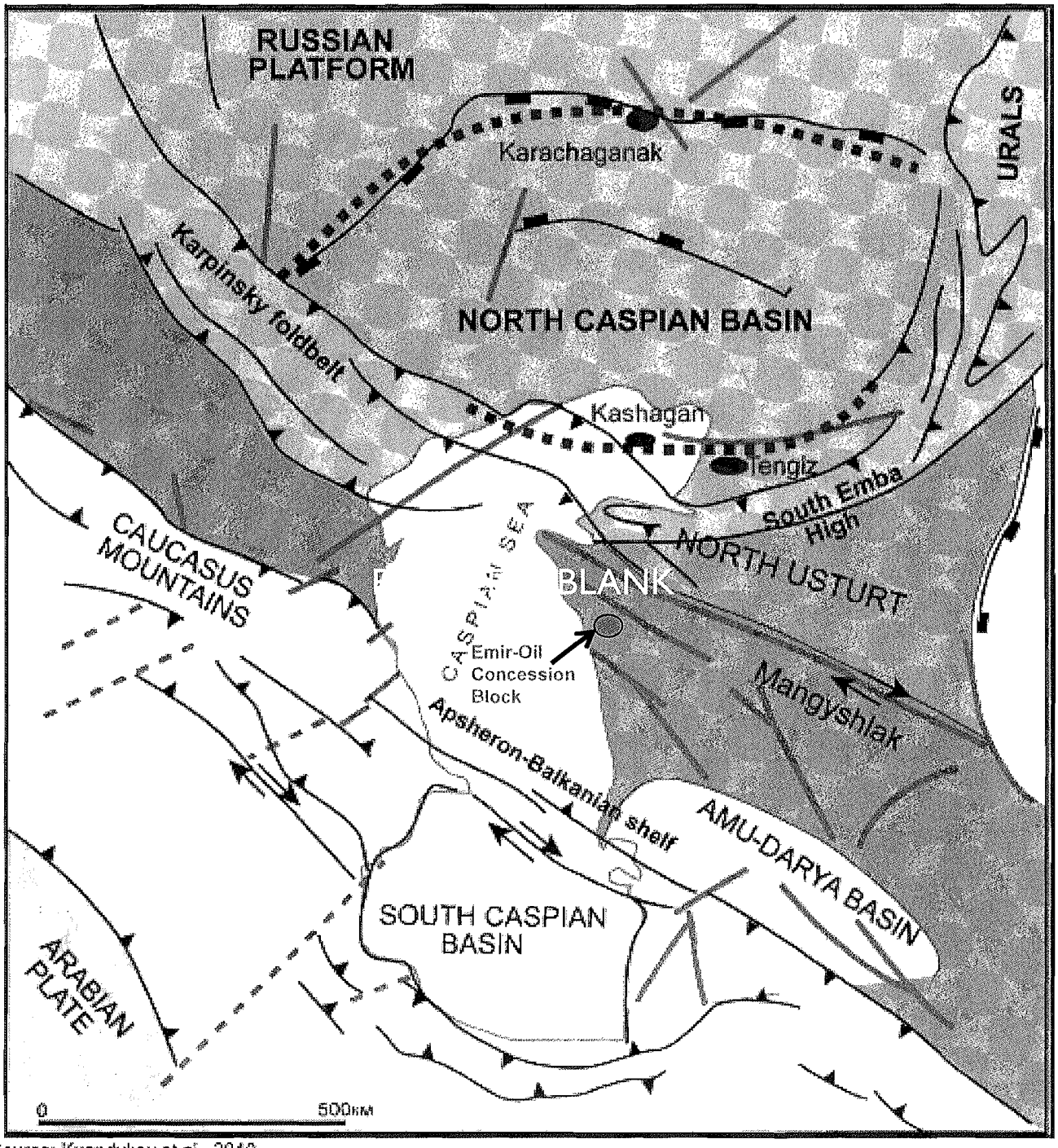

Source: Kuandykov et al., 2010.

Source : Kuandykov, et al. 2010 from "*Technically Recoverable Shale Oil and Shale Gas Resources: Kazakhstan*" Figure 2, U.S. Energy Information Administration, Washington, DC 20585, September 2015.

Figure 2-1 – Emir-Oil Concession Block Regional Geological Setting Map

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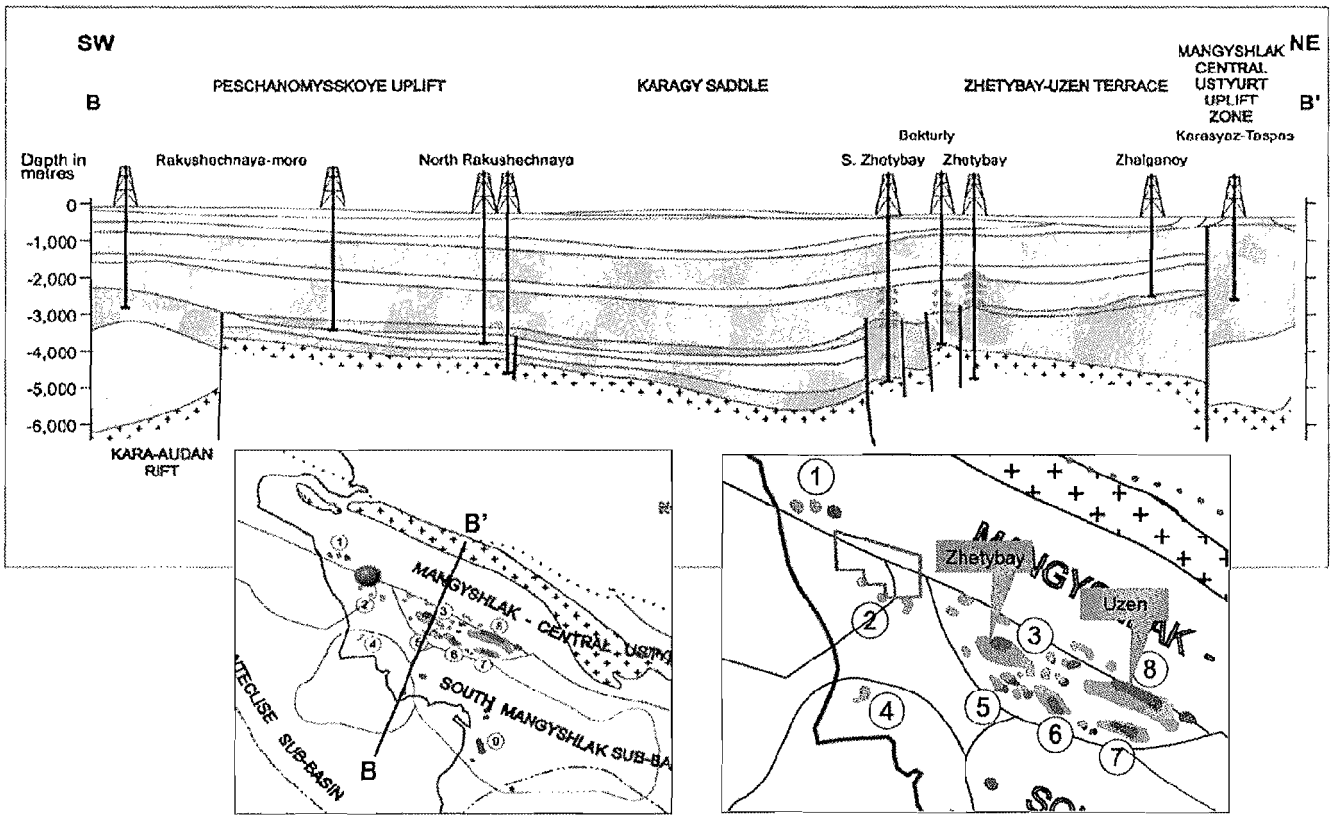
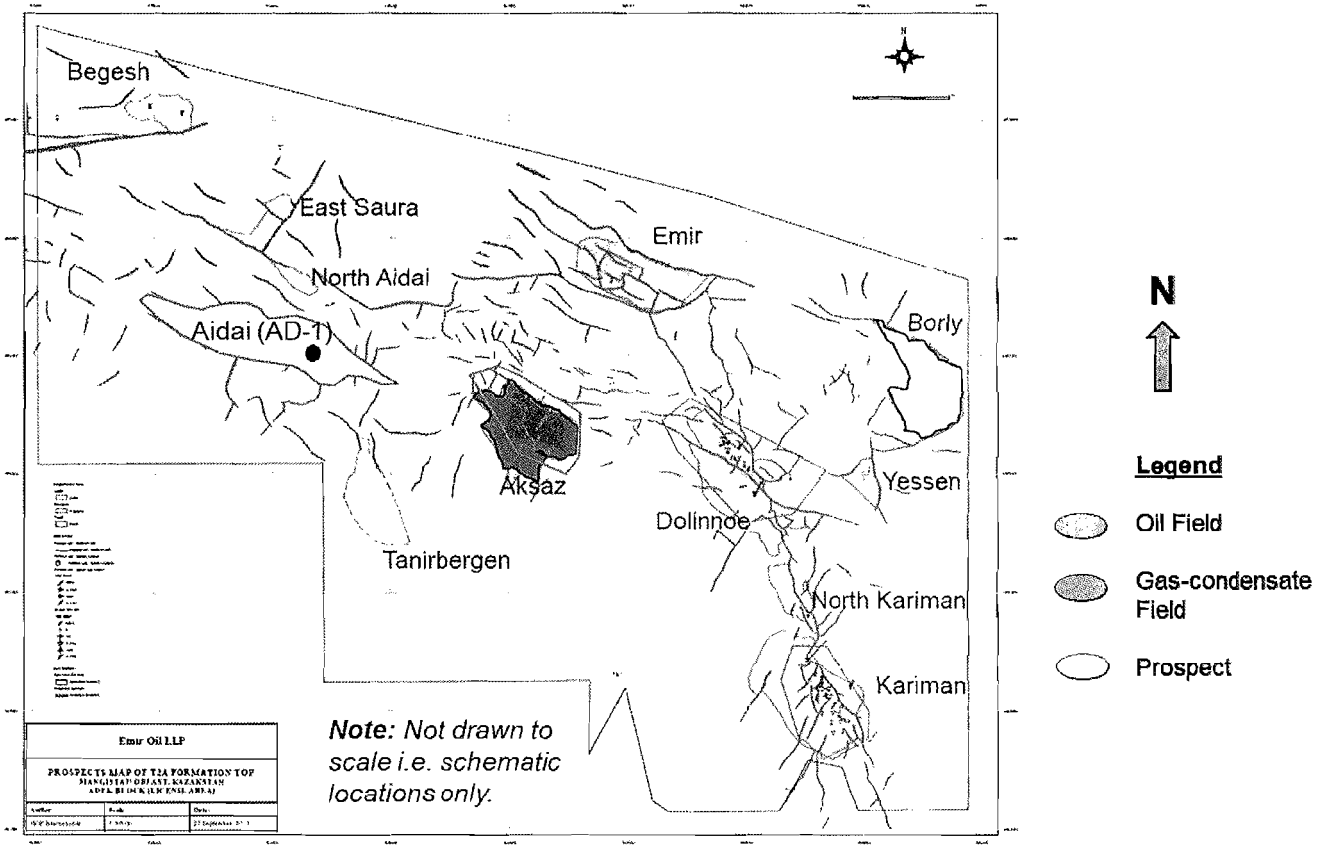


Source : Emir-Oil LLP Management Presentation, January 2015.

Figure 2-2 – Regional Mangyshlak Basin Structural Cross Section



Source : Modified from Emir-Oil LLP Management Presentation, January 2015.

Figure 2-3 – Fields and Prospects in Emir-Oil Concession Block

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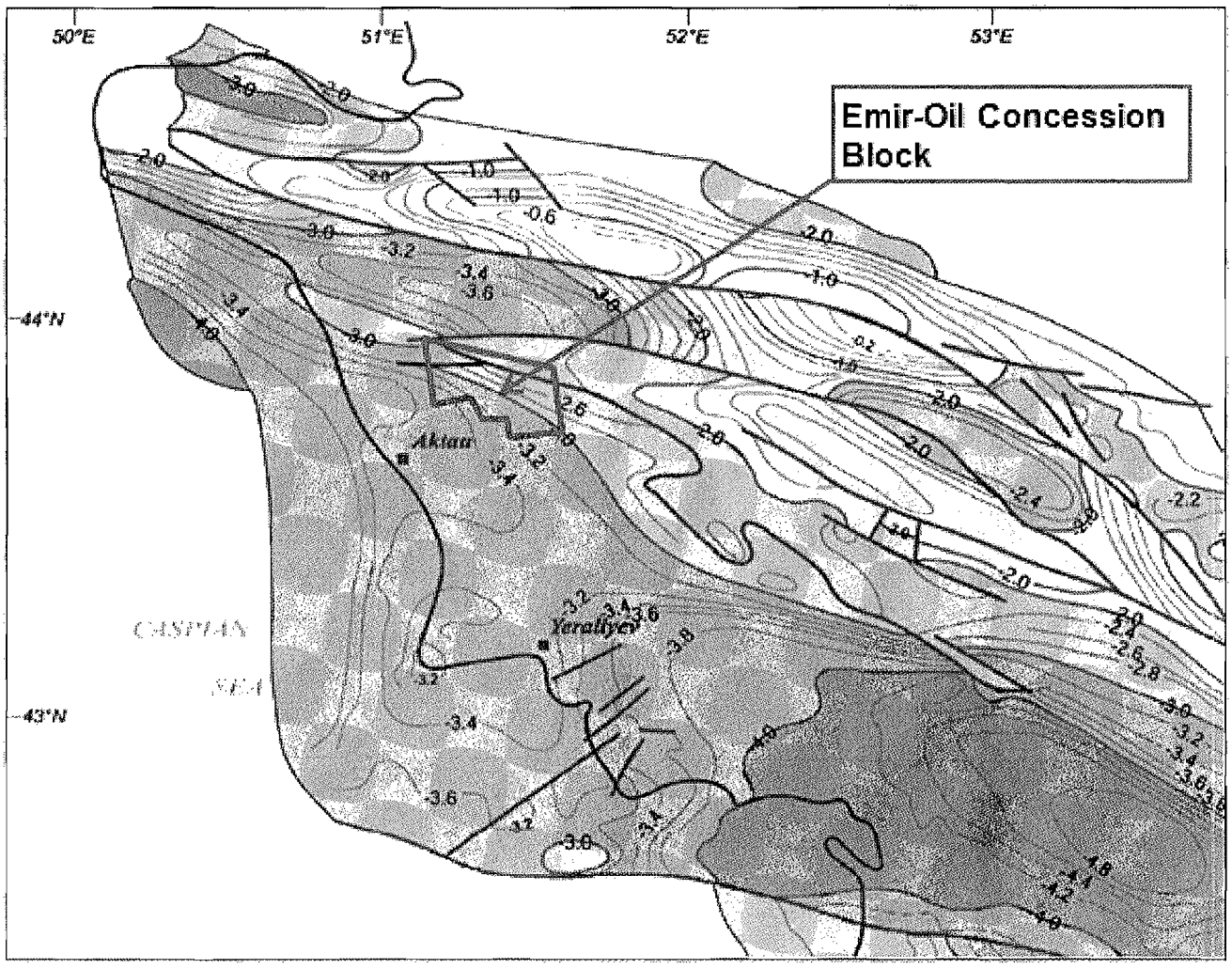
OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



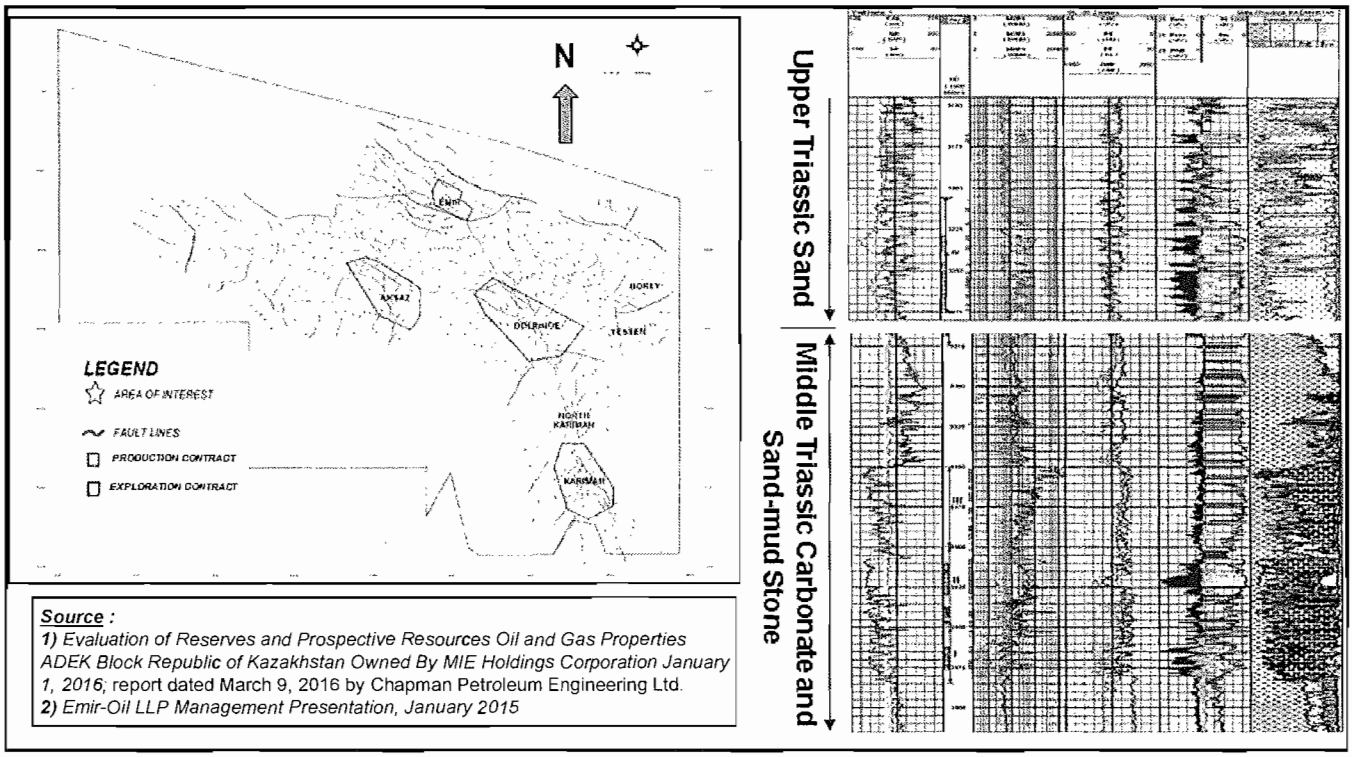
Source : Emir-Oil LLP Management Presentation, January 2015.

Figure 2-4 – Emir-Oil Concession Block Tectonic Location Map

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Source *:*
1) Evaluation of Reserves and Prospective Resources Oil and Gas Properties ADEK Block Republic of Kazakhstan Owned By MIE Holdings Corporation January 1, 2016; report dated March 9, 2016 by Chapman Petroleum Engineering Ltd.
2) Emir-Oil LLP Management Presentation, January 2015

Figure 2-5 – Production and Exploration Areas, and Type Logs

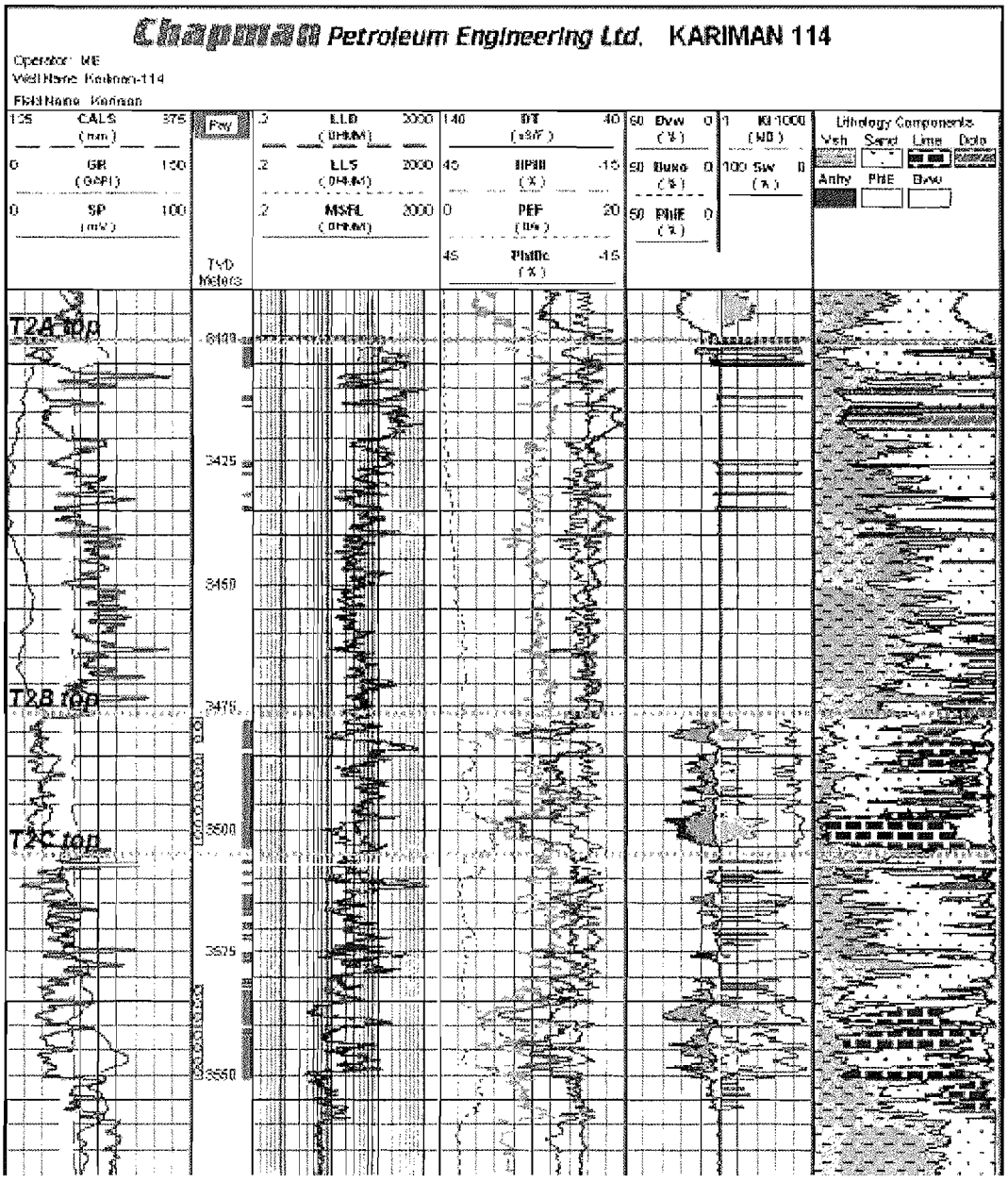


Figure 2-6 – Example Reservoirs in Well Kariman-114

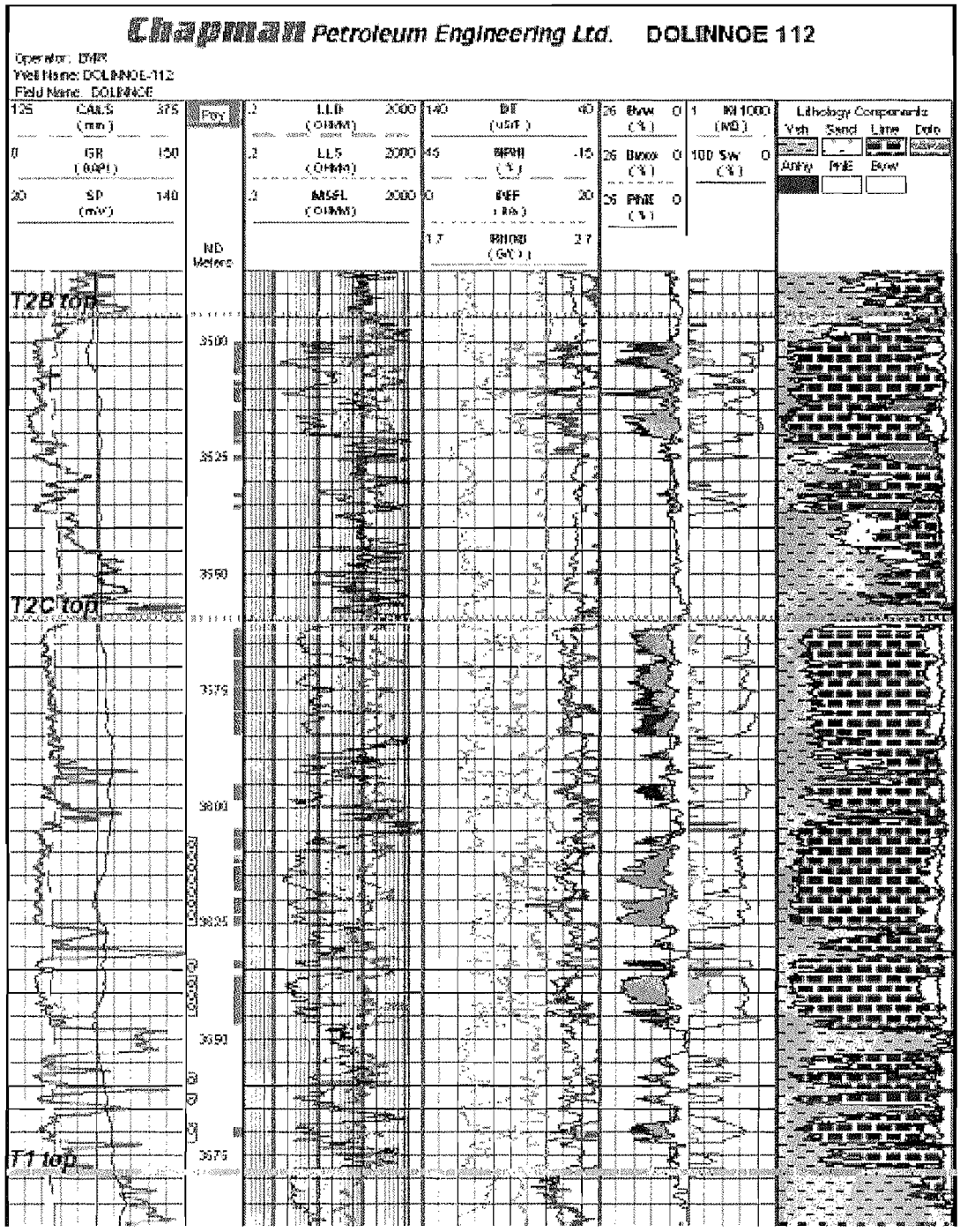
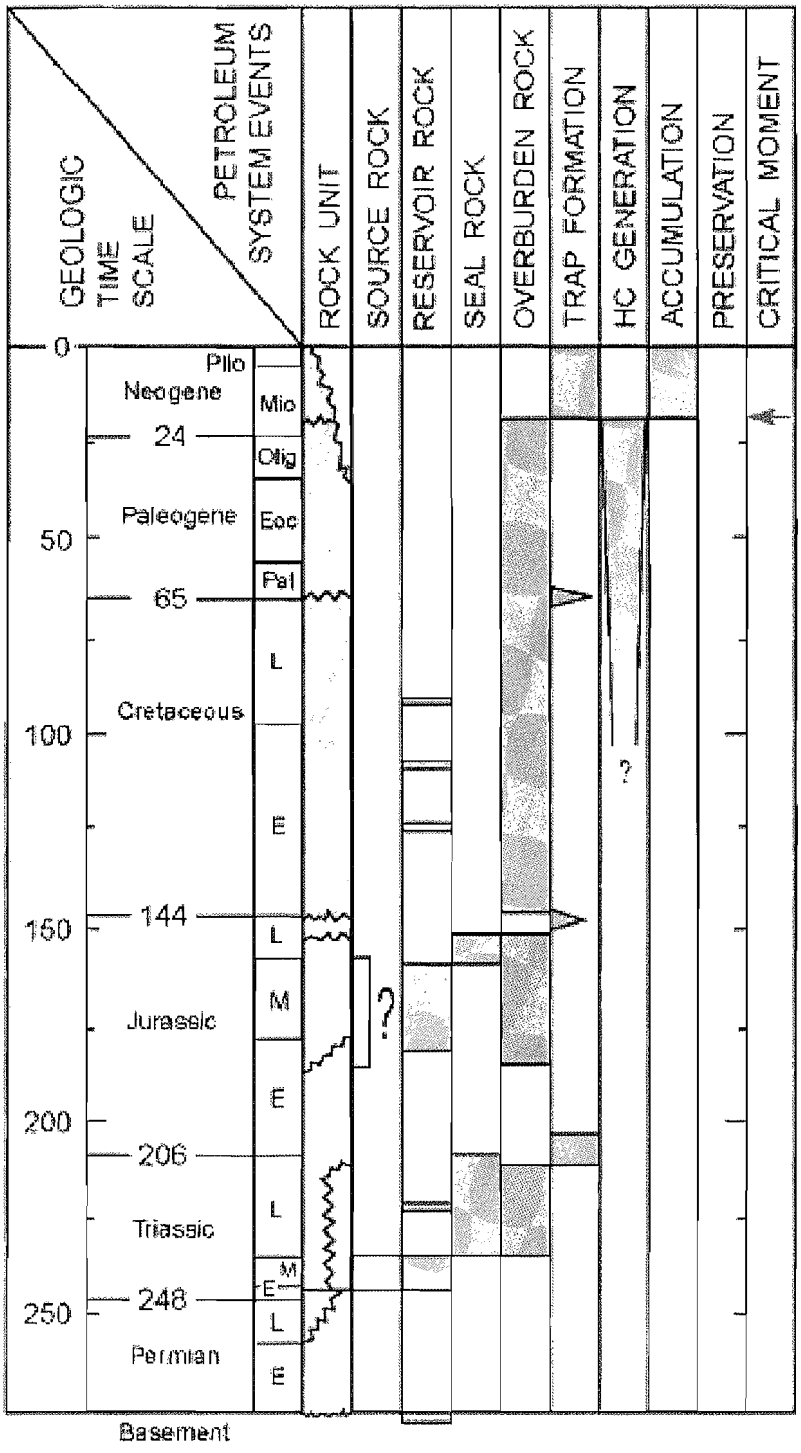


Figure 2-7 – Example Reservoirs in Well Dolinnoe-112

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



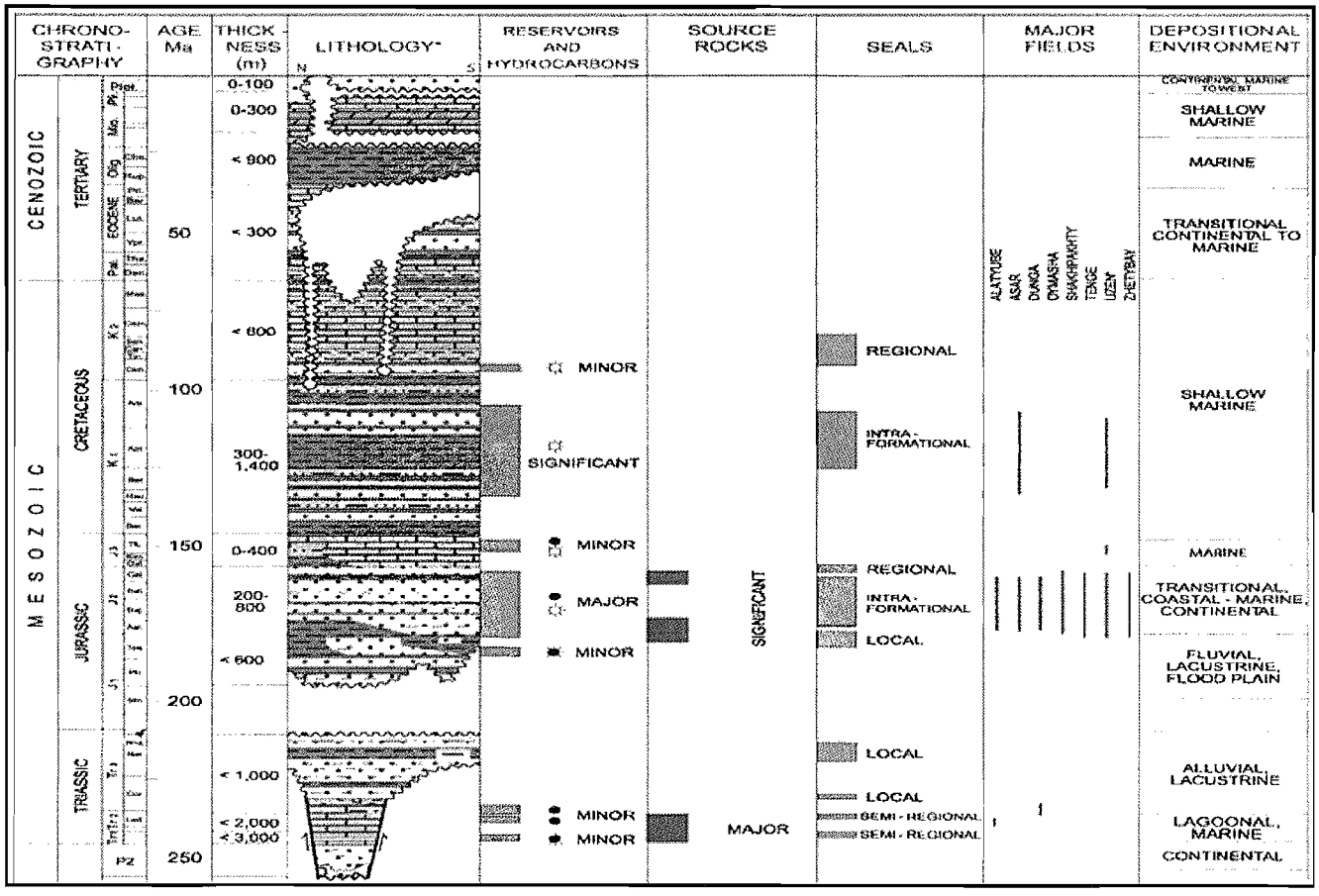
Source : Ulmishek 2001 from "*Technically Recoverable Shale Oil and Shale Gas Resources: Kazakhstan*" Figure 19, U.S. Energy Information Administration, Washington, DC 20585, September 2015.

Figure 2-8 – South Mangyshlak Kazakhstan Generalized Stratigraphic Column

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Source : Emir-Oil LLP Management Presentation, January 2015.

Figure 2-9 – South Mangyshlak Kazakhstan Detailed Stratigraphic Column

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

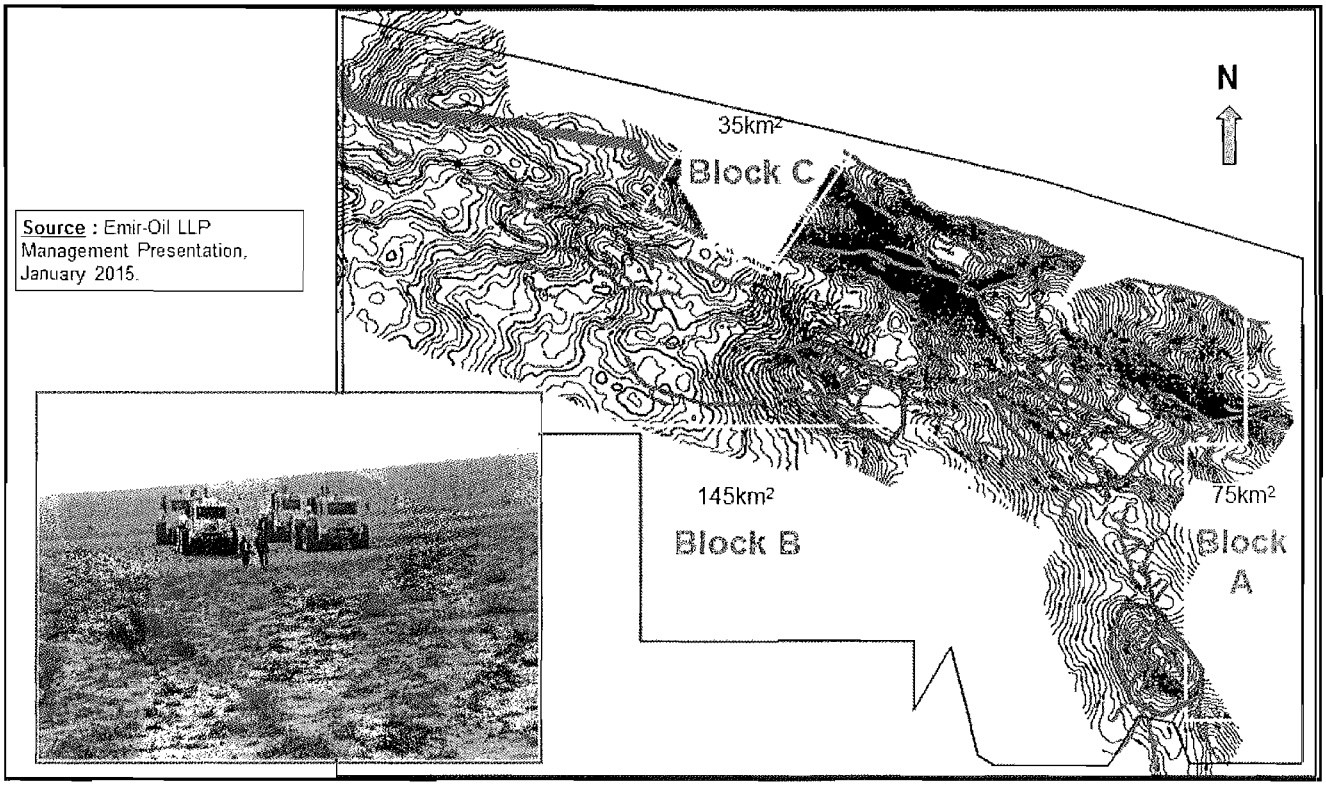


Figure 2-10 – 2013 3D Seismic Reprocessing and New Infill 3D Surveys Mega Cube Map

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

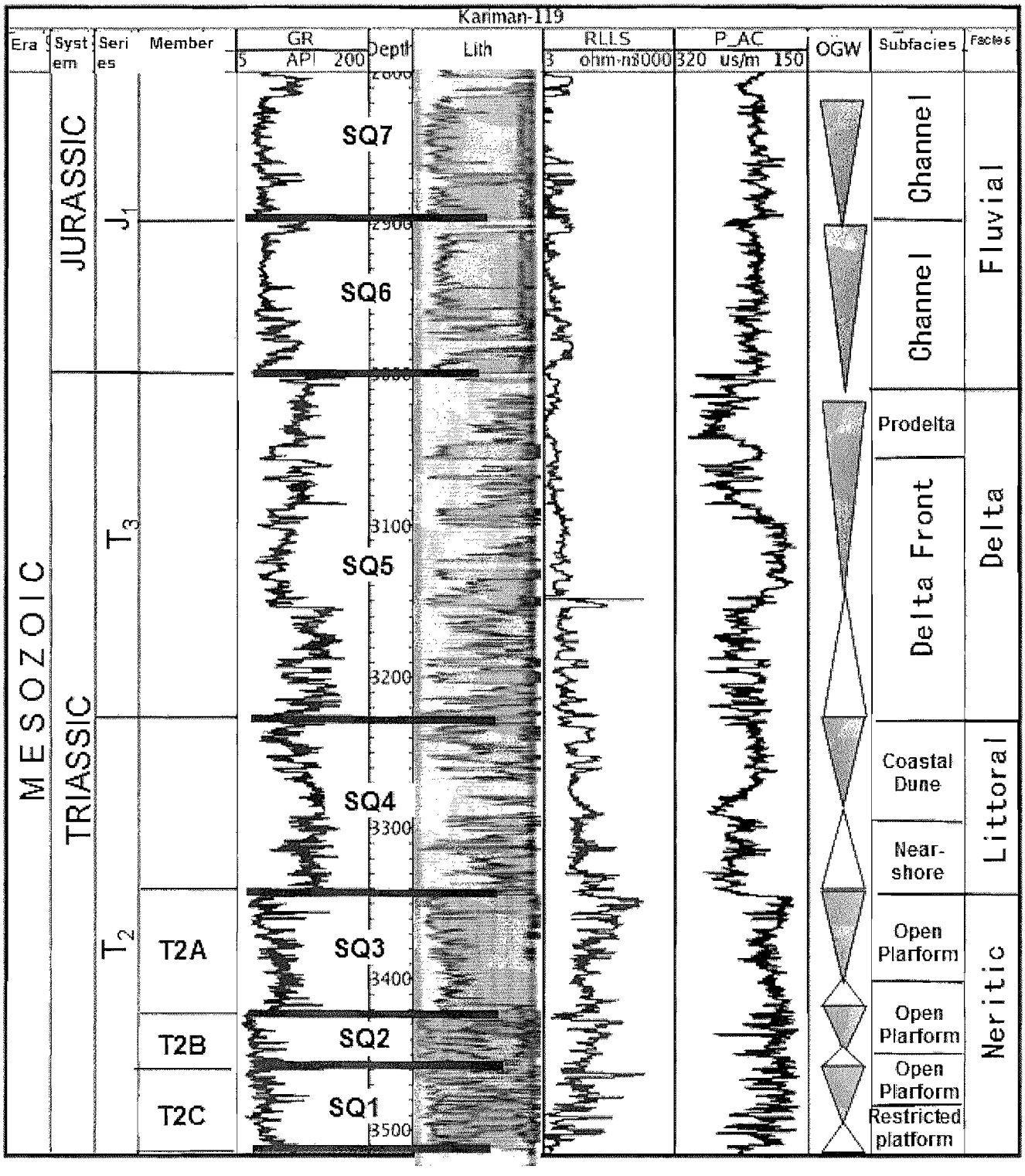


Figure 2-11 – Kariman K-119 Sequence Stratigraphic Column and Depositional Environment

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

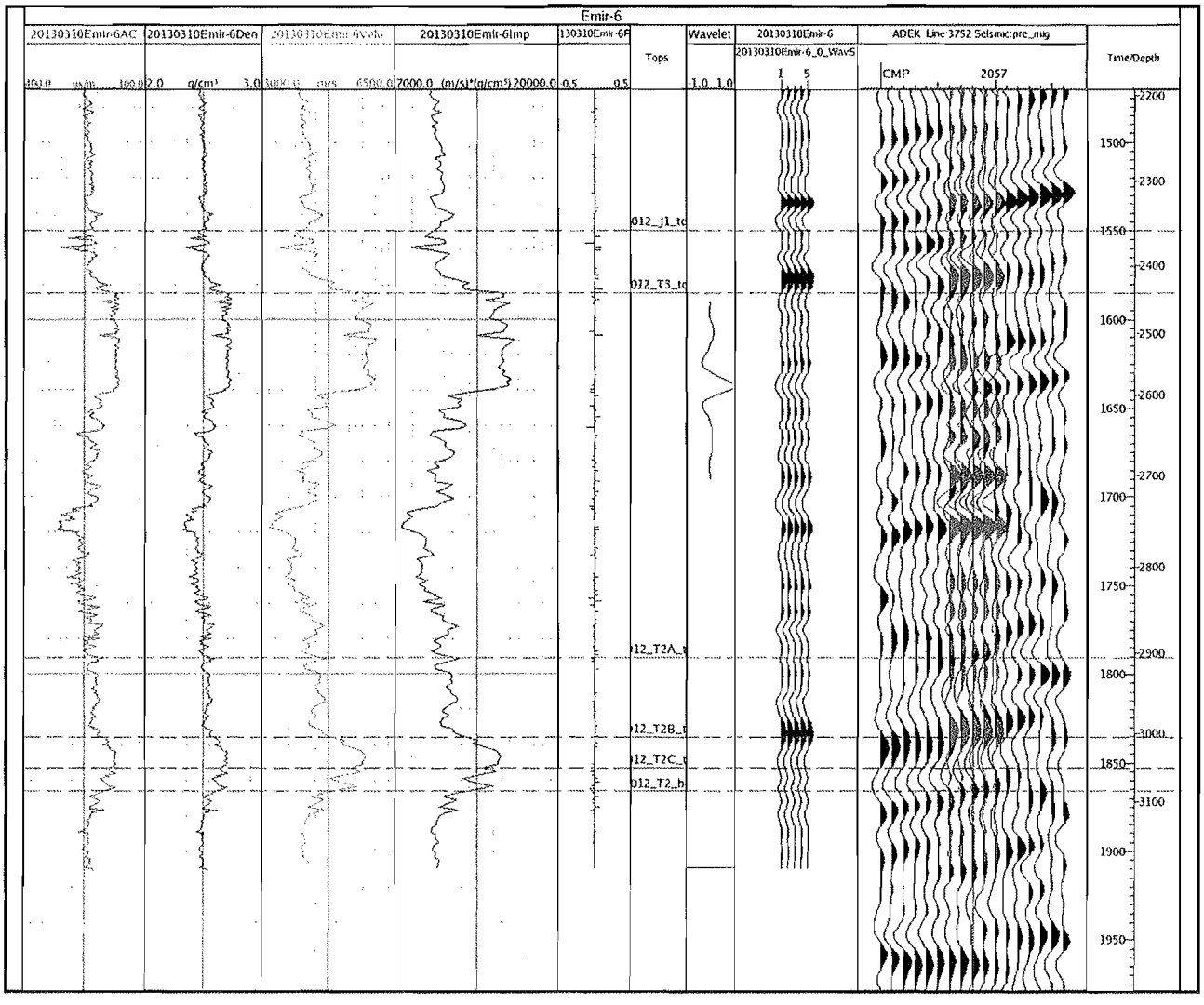


Figure 2-12 – Well Emir-6 Synthetic Seismogram Based on Acoustic Logs

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

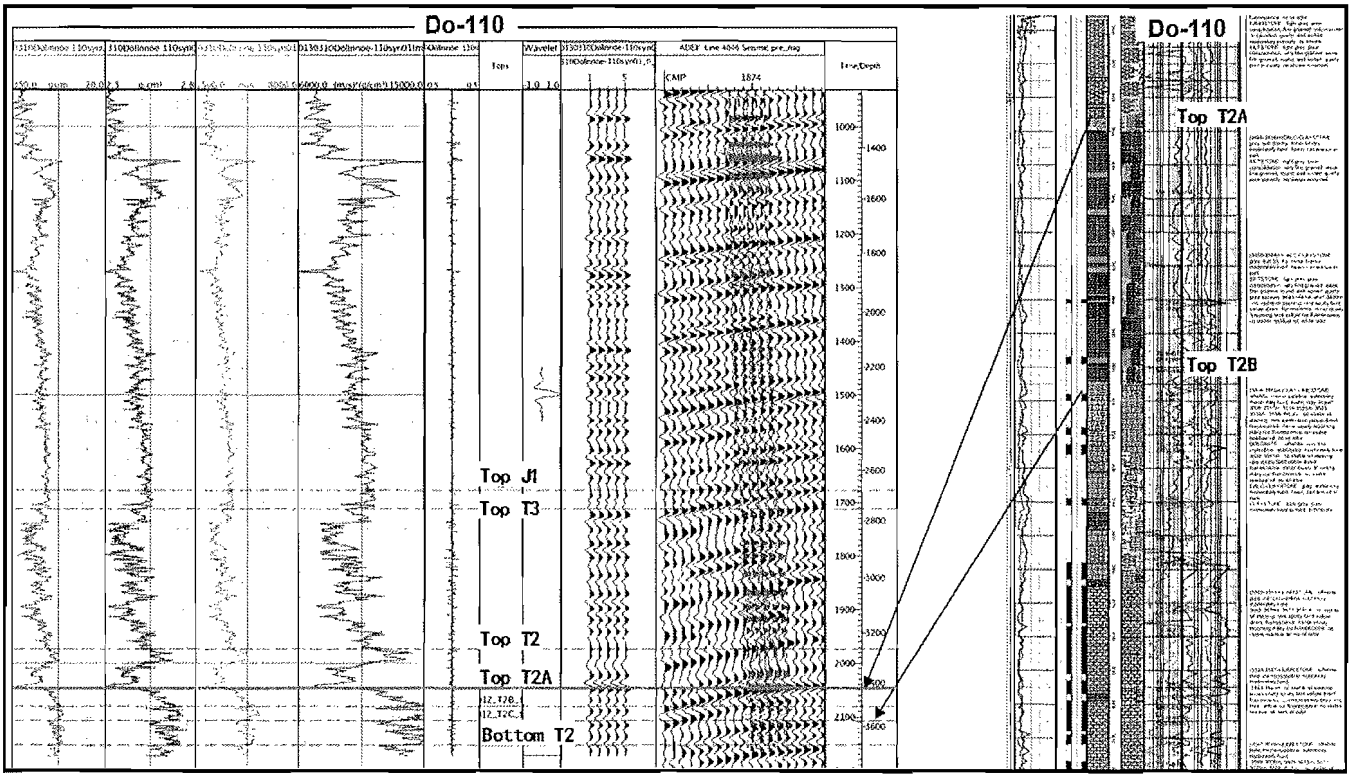


Figure 2-13 – Well Dolinnoe-110 Synthetic Seismogram Based on Acoustic Logs

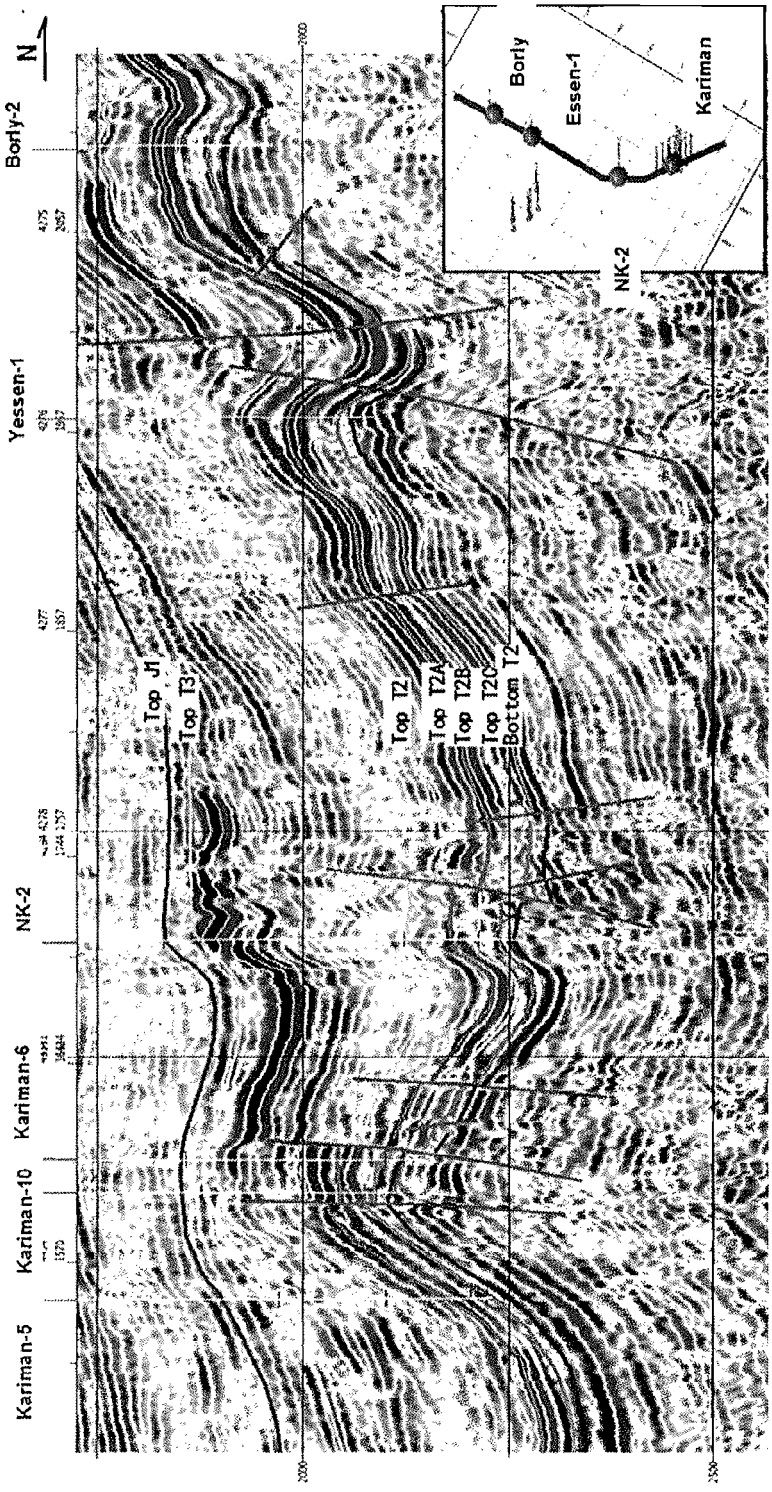


Figure 2-14 – 3D Seismic Time Cross Section through Kariman, North Kariman, Yessen and Borly Wells

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

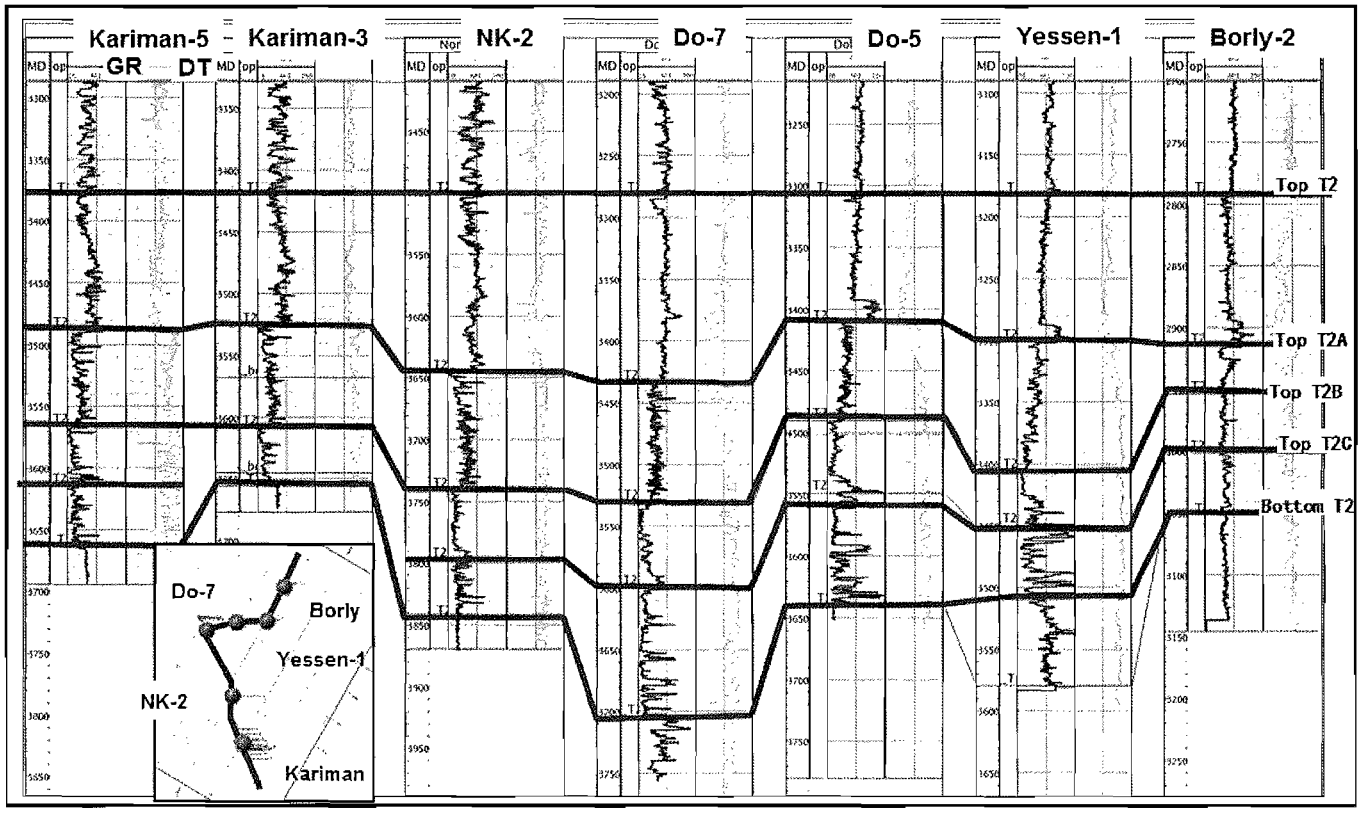


Figure 2-15 – Stratigraphic Cross Section through Kariman, North Kariman, Dolinnoe, Yessen and Borly Wells

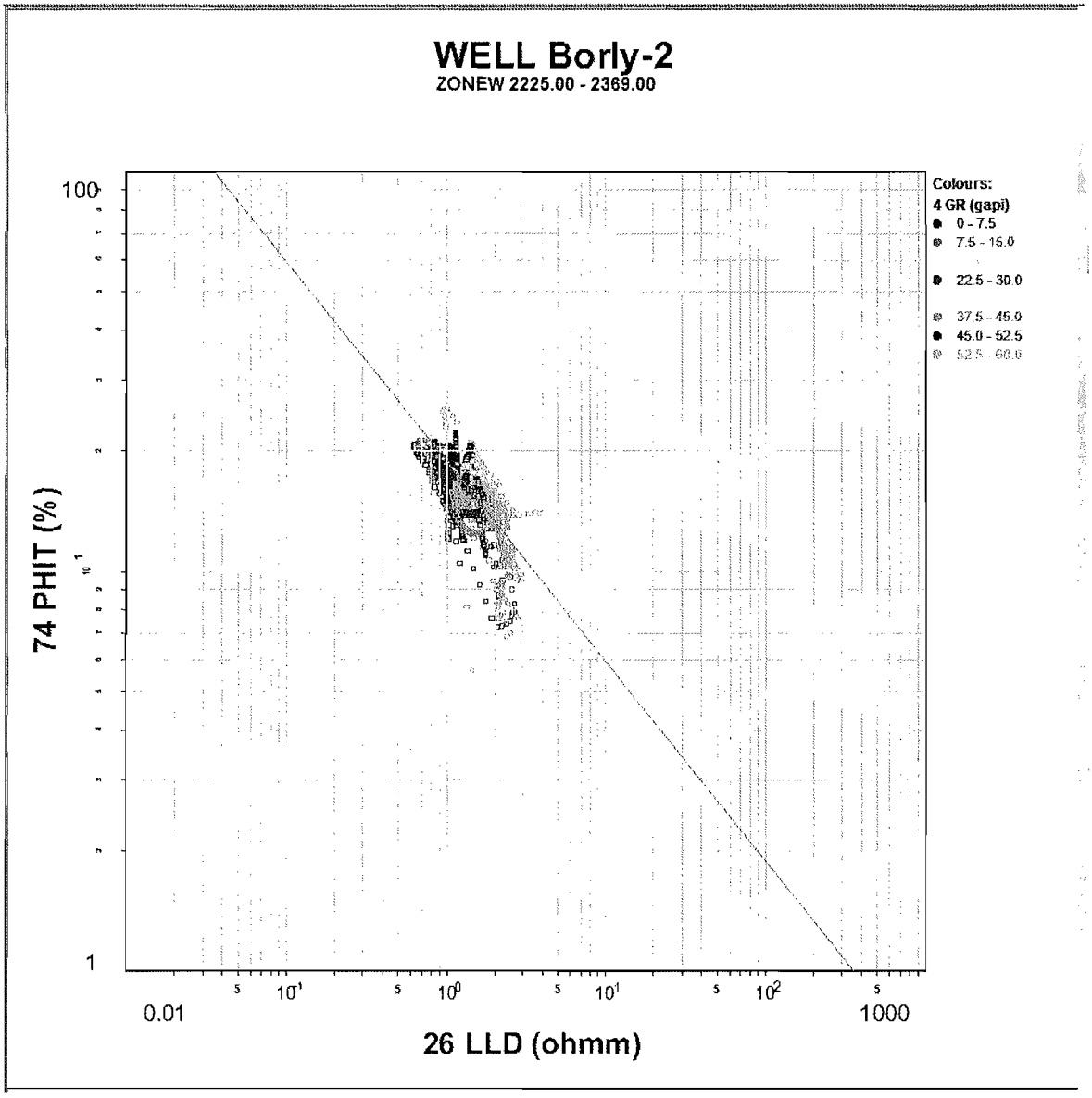
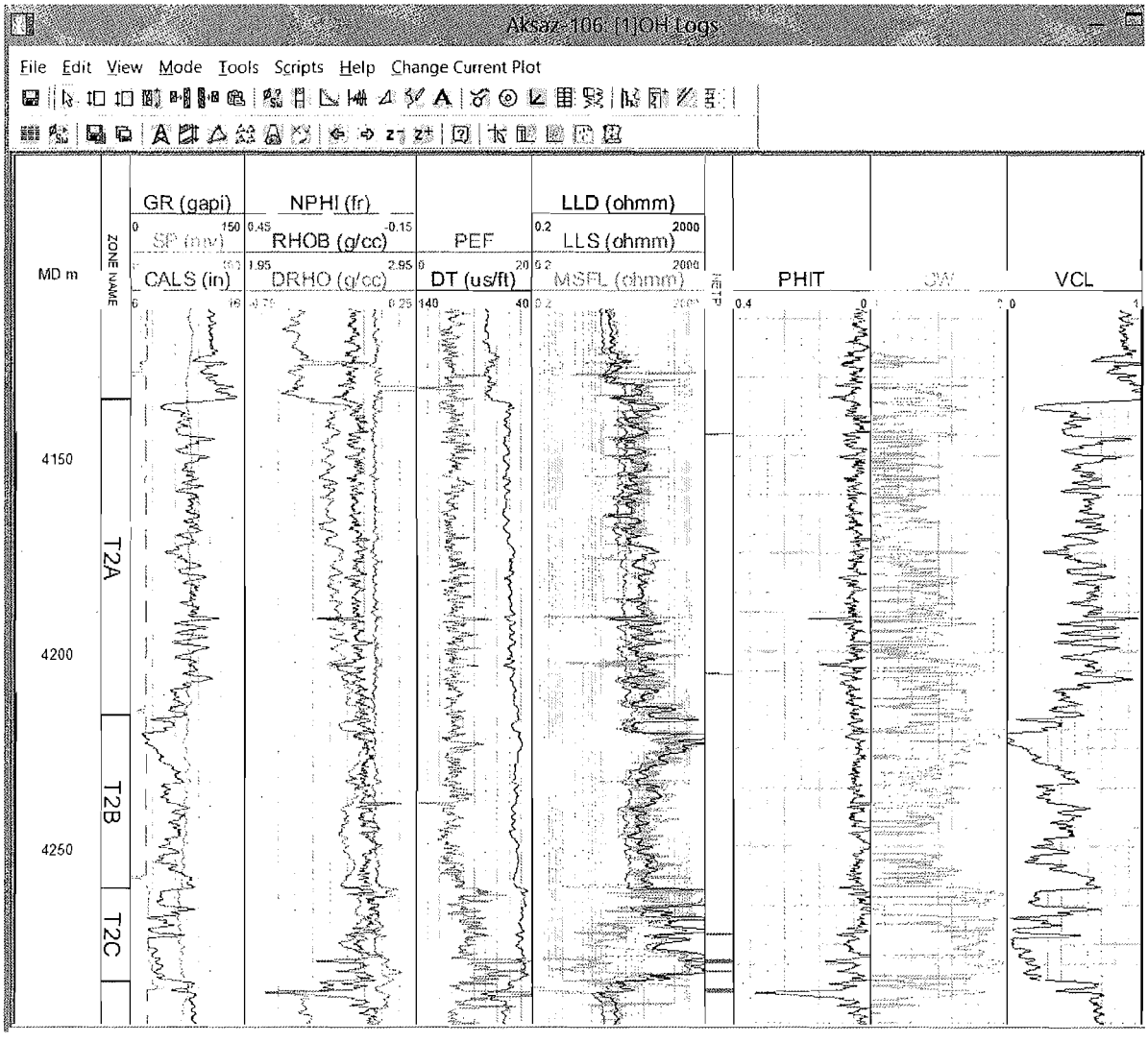


Figure 2-16 – Borly-2ST1 Pickett Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Net Pay Flag NETP (track 7) of the plot was derived from set-2 cutoffs:

VCL<= 0.5
PHIT>= 0.08
SW<=0.5

Figure 2-17 – RPS Petrophysical Results Aksaz-106 CPI Plot

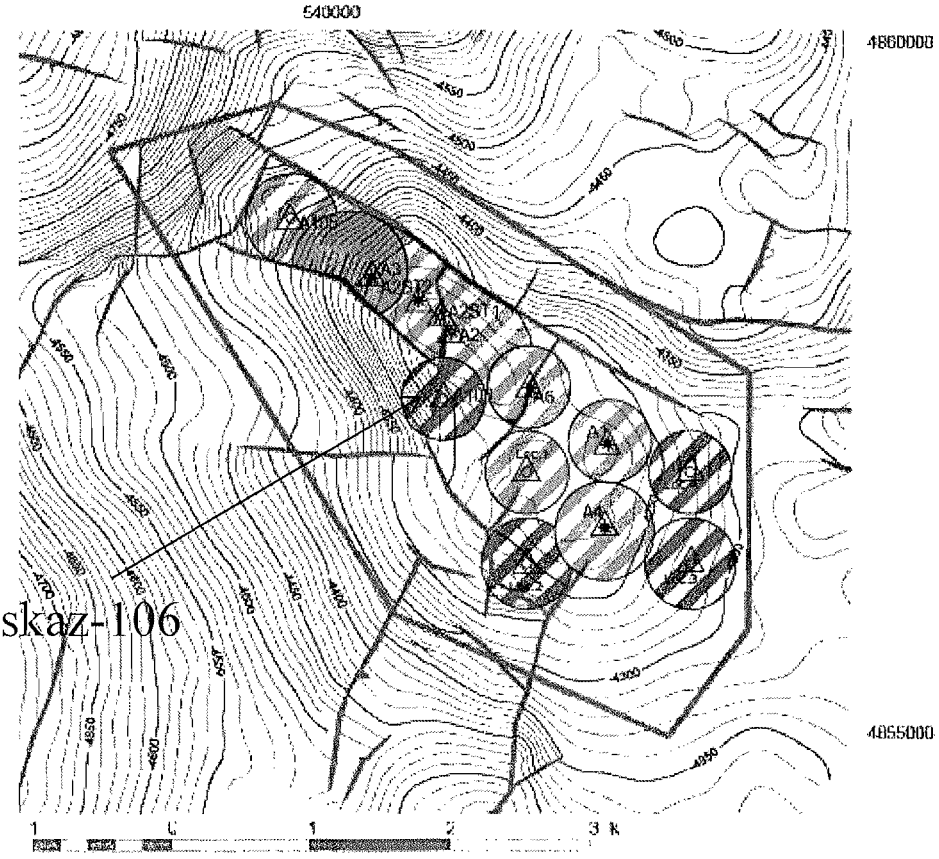


Figure 2-18 – Chapman Report Aksaz Field T2C Depth Map

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

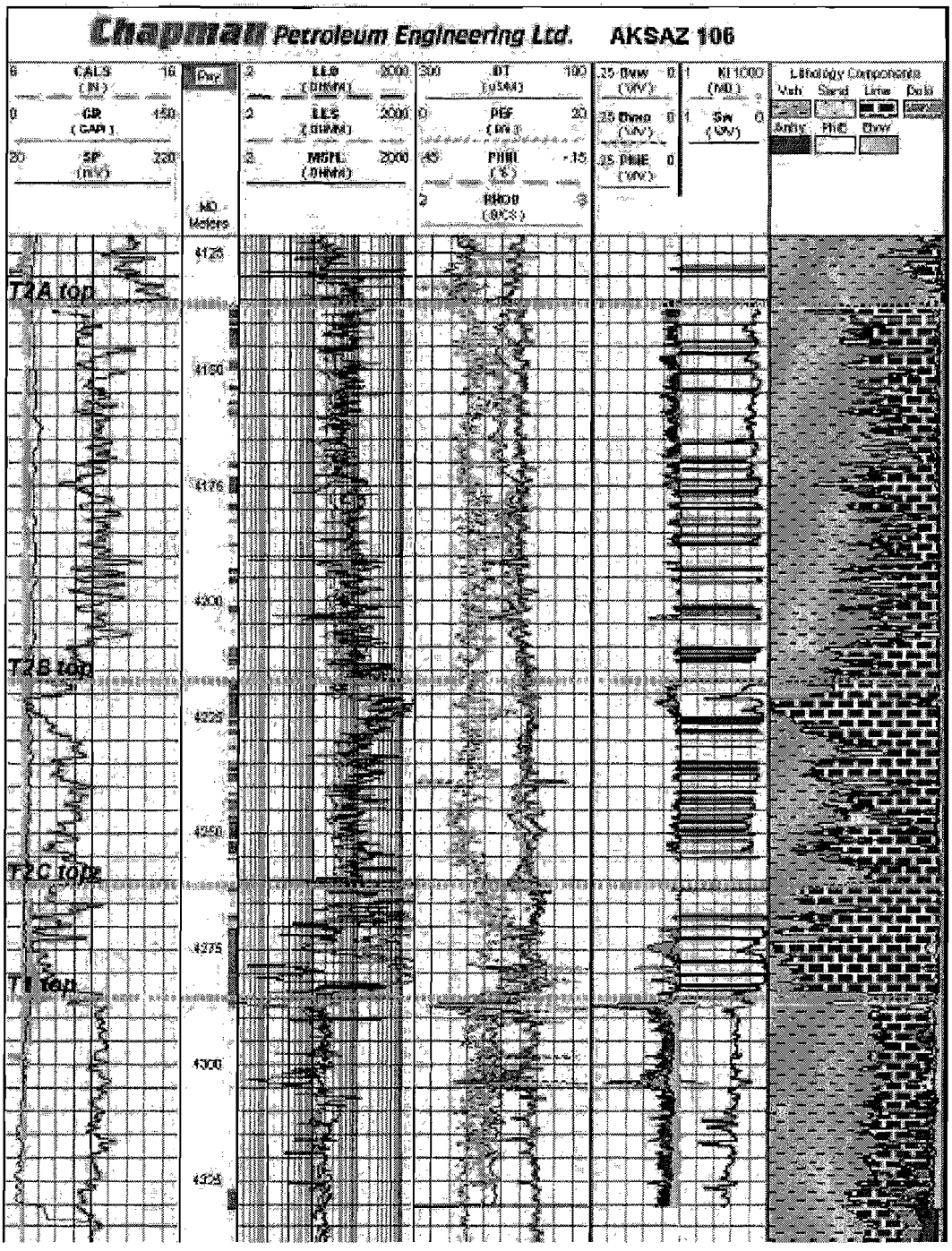


Figure 2-19 - Chapman Aksaz-106 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

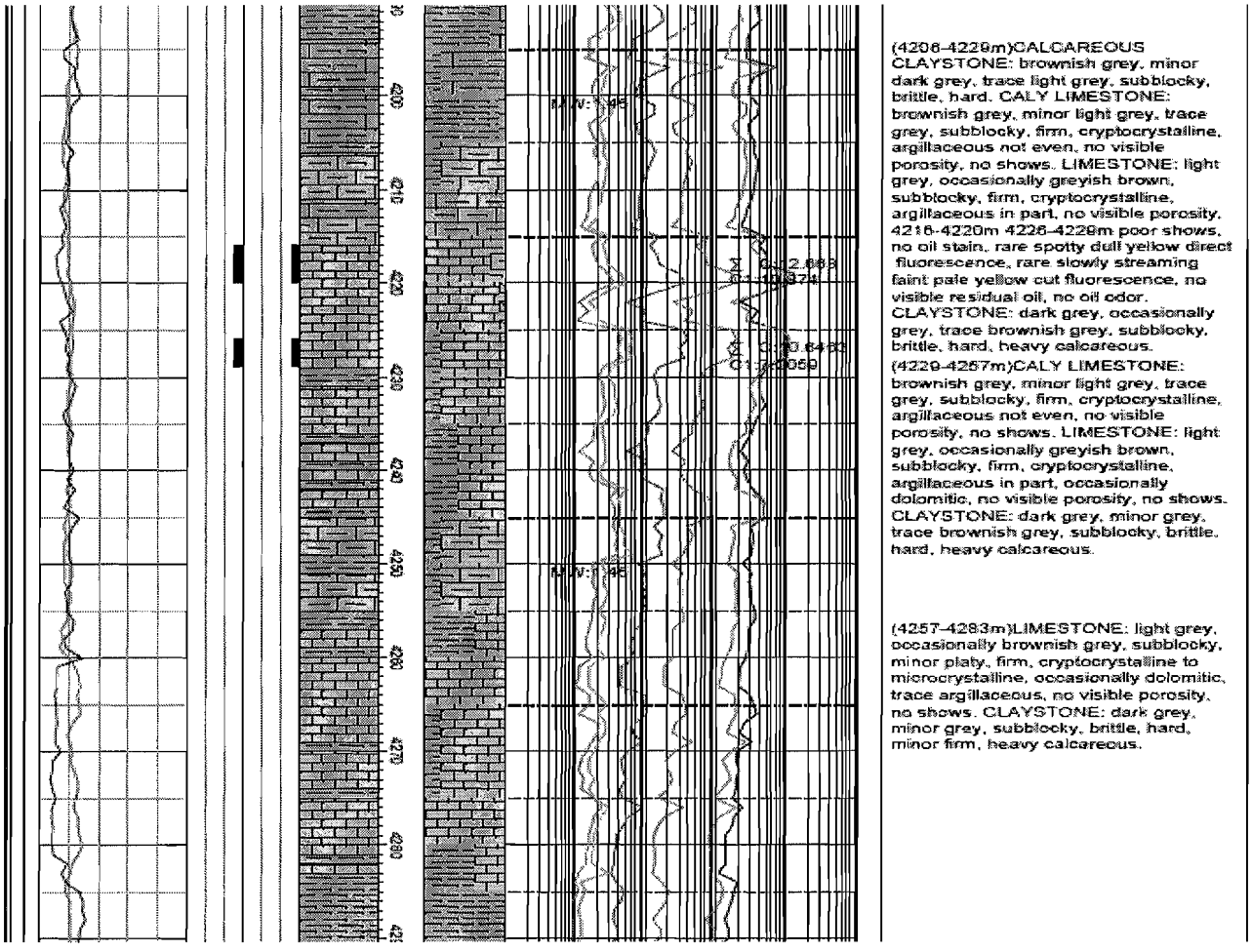
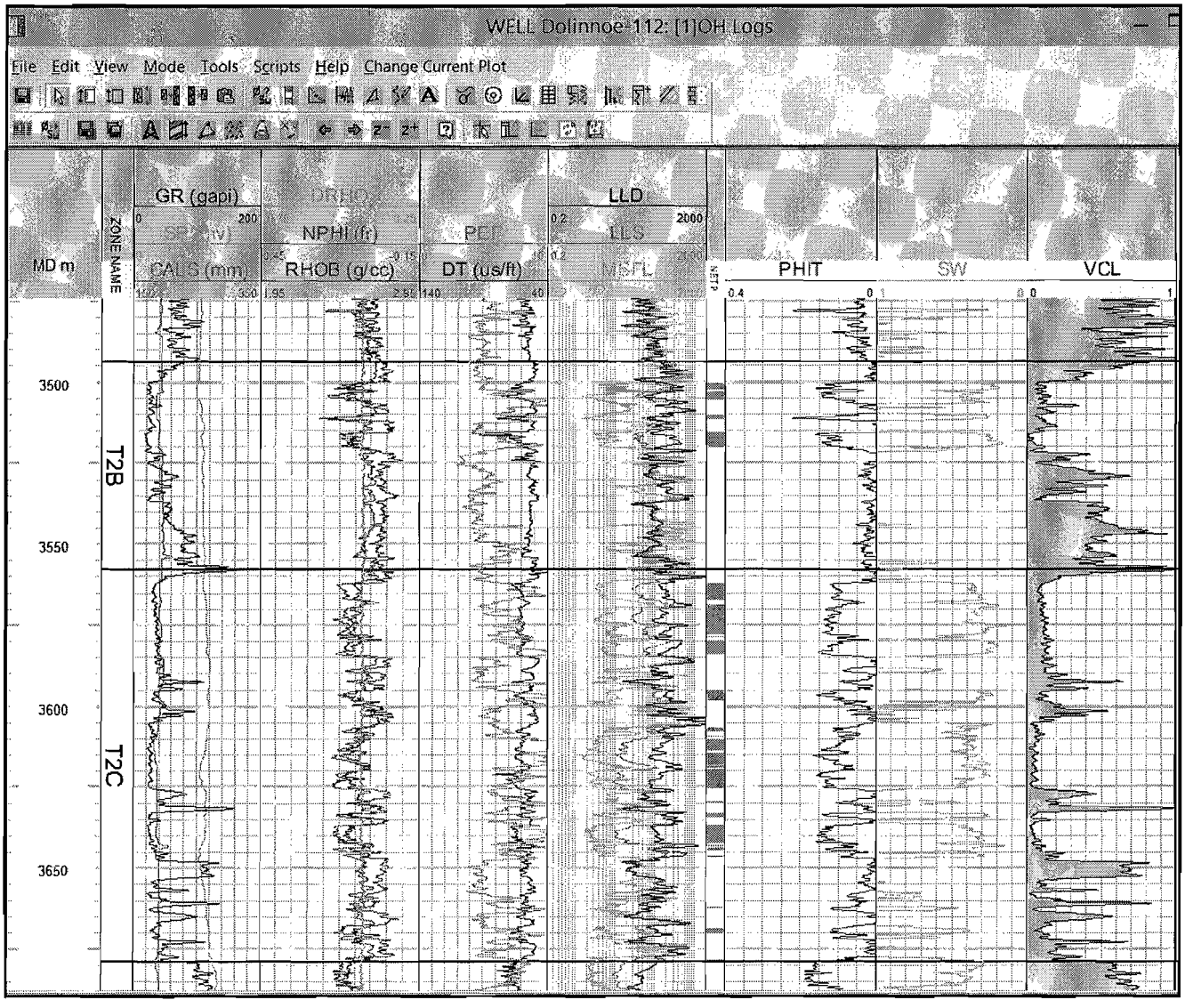


Figure 2-20 - Chapman Aksaz-106 Mud Log (4190 -4290 m)



Net Pay Flag "NETP" (track 7) of the plot was derived from Set-2 cutoffs:

VCL<= 0.5
PHIT>= 0.08
SW<=0.5

Figure 2-21 – RPS Petrophysical Results Dolinnoe-112 CPI Plot

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

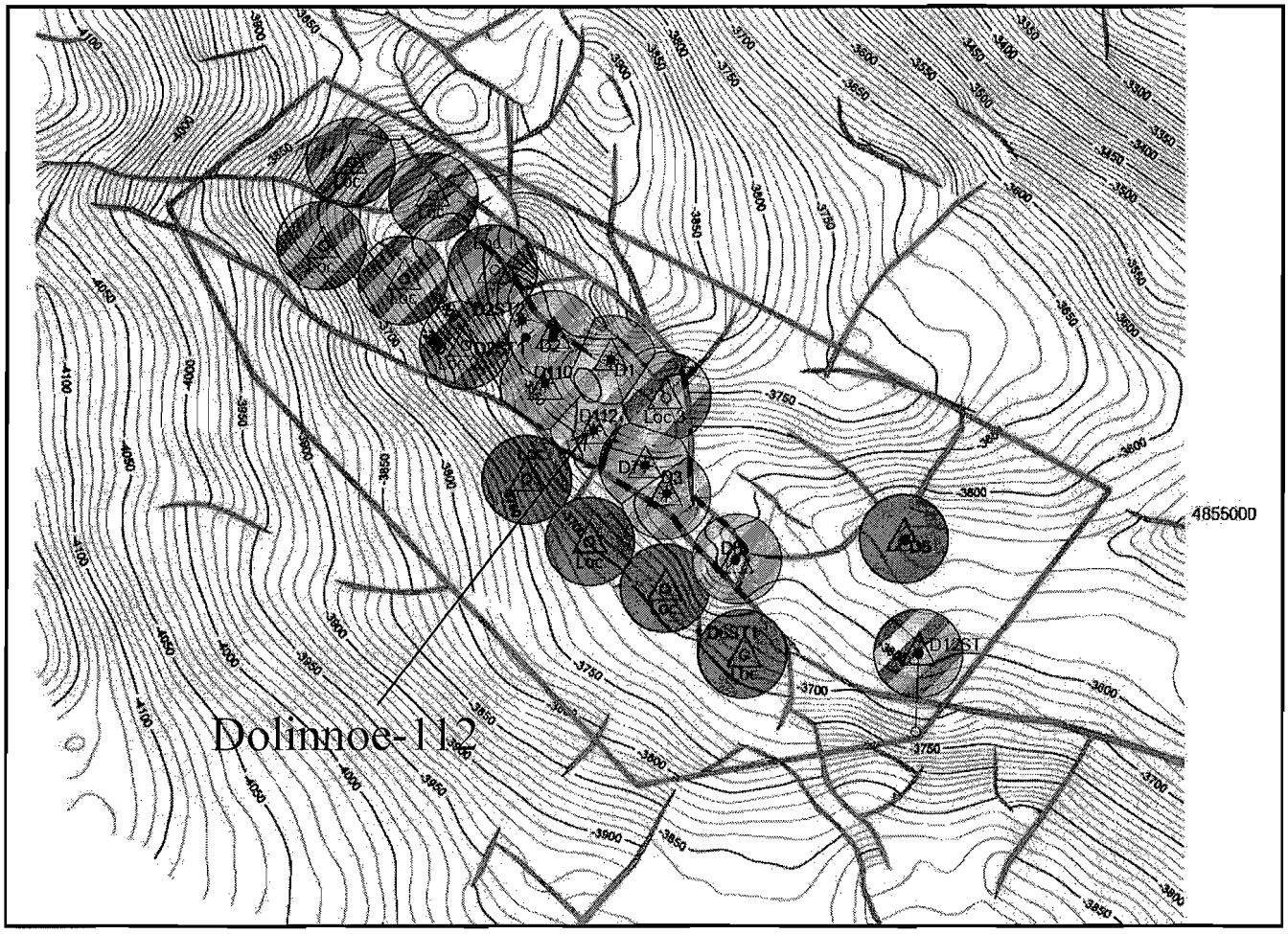


Figure 2-22 – Chapman Report Dolinnoe Field T2B Depth Map

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

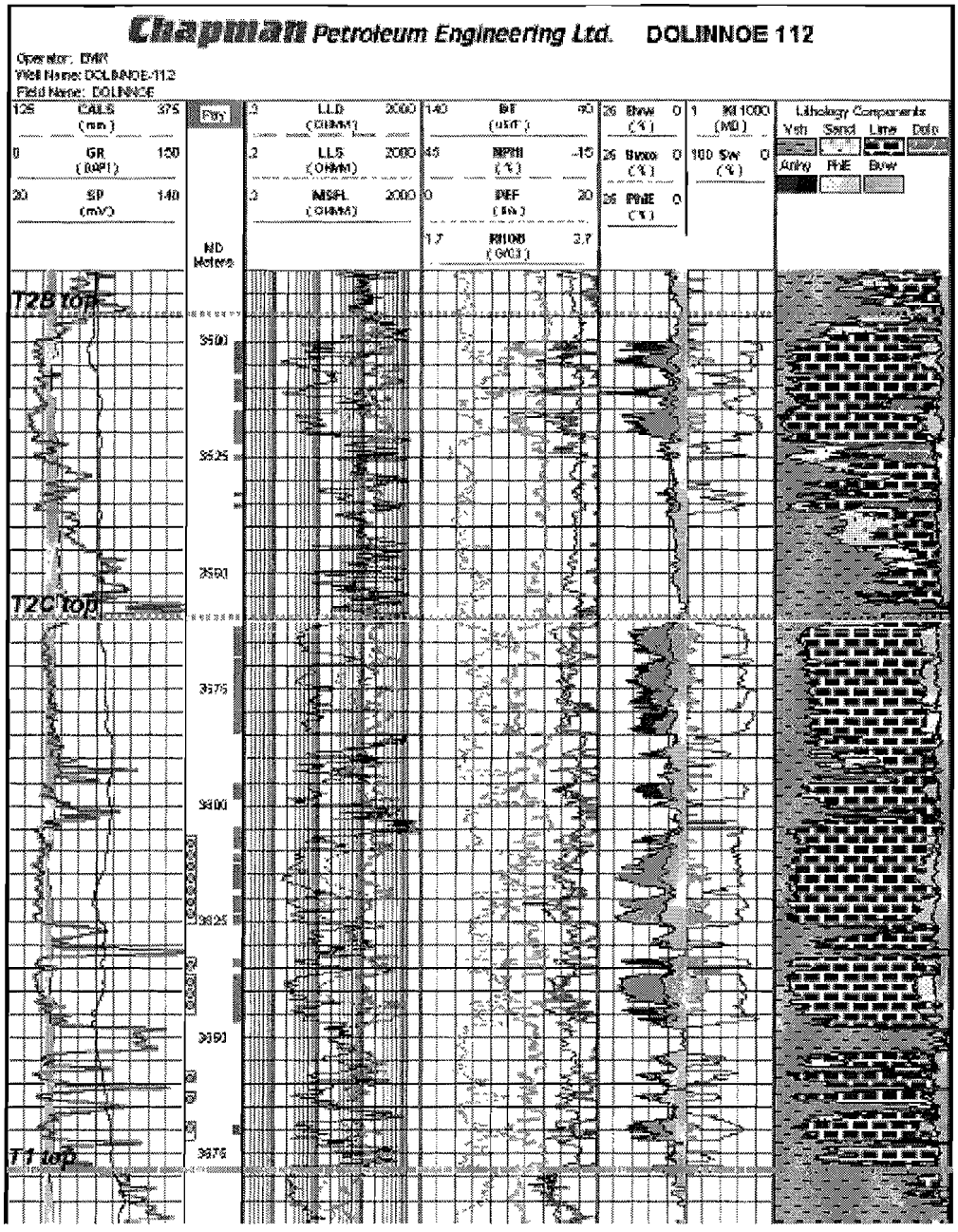
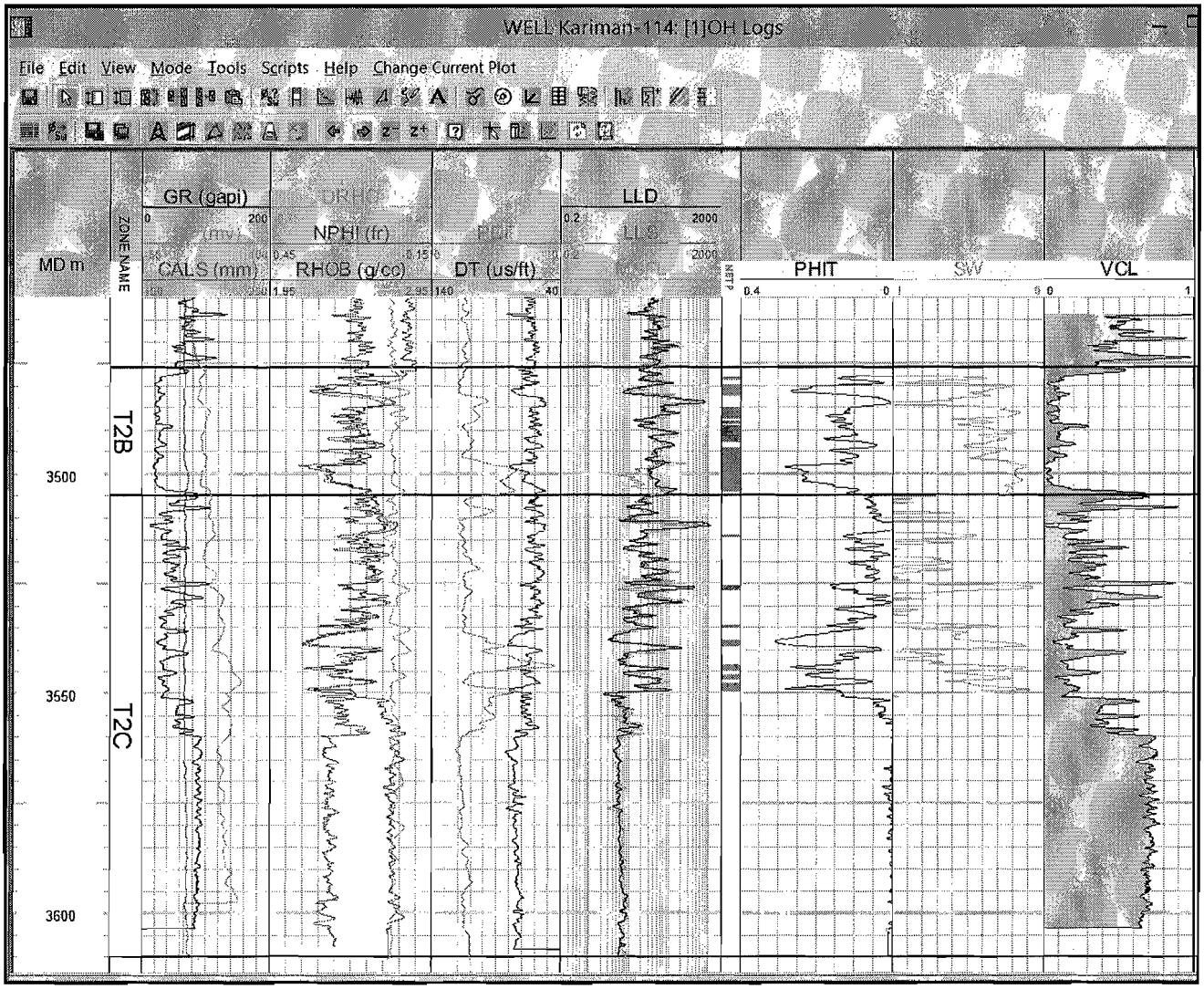


Figure 2-23 – Chapman Report Dolinnoe-112 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Net Pay Flag "NETP" (track 7) of the plot was derived from Set-2 cutoffs:

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Figure 2-24 – RPS Petrophysical Analysis Results Kariman-114 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

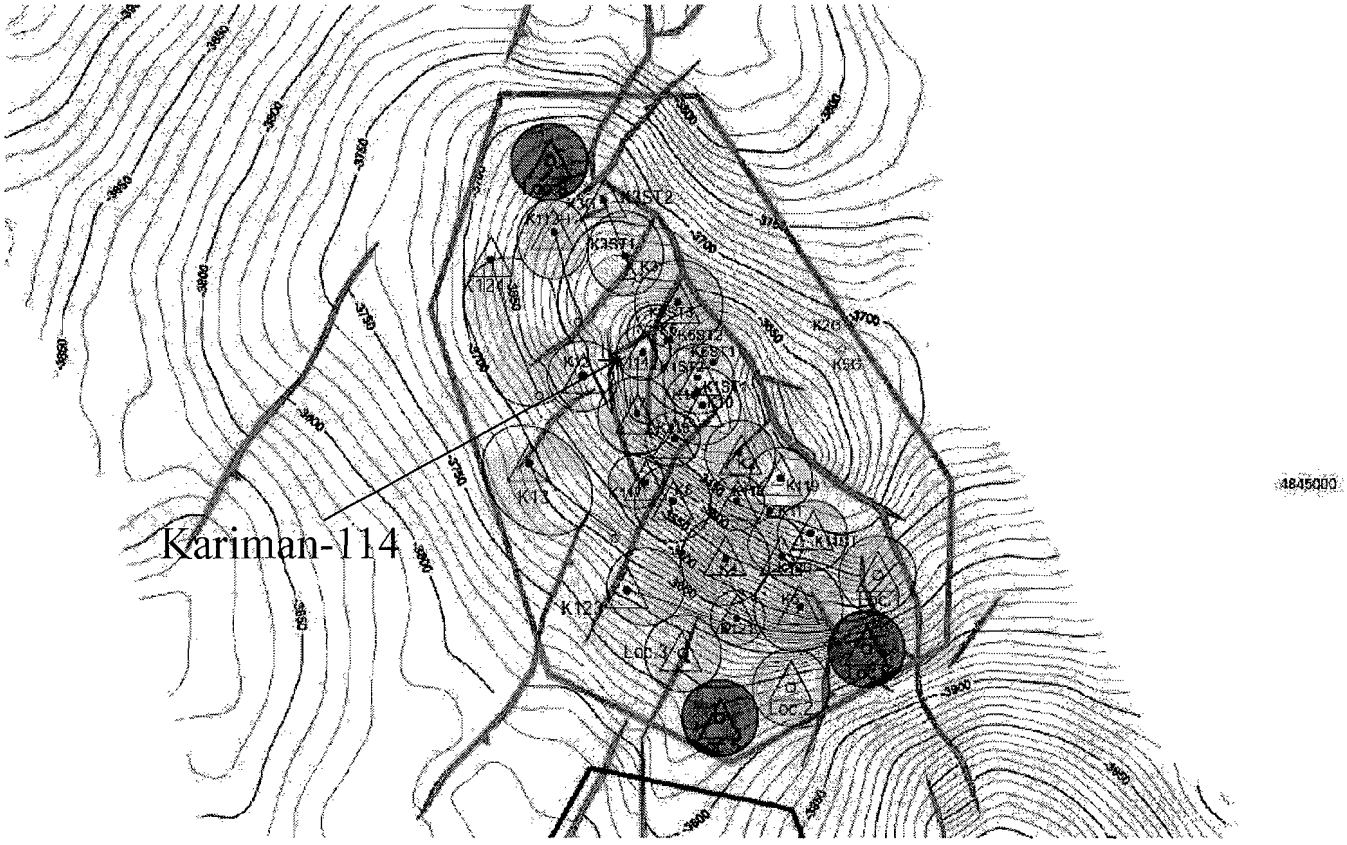


Figure 2-25– Chapman Report Kariman Field T2A Depth Map

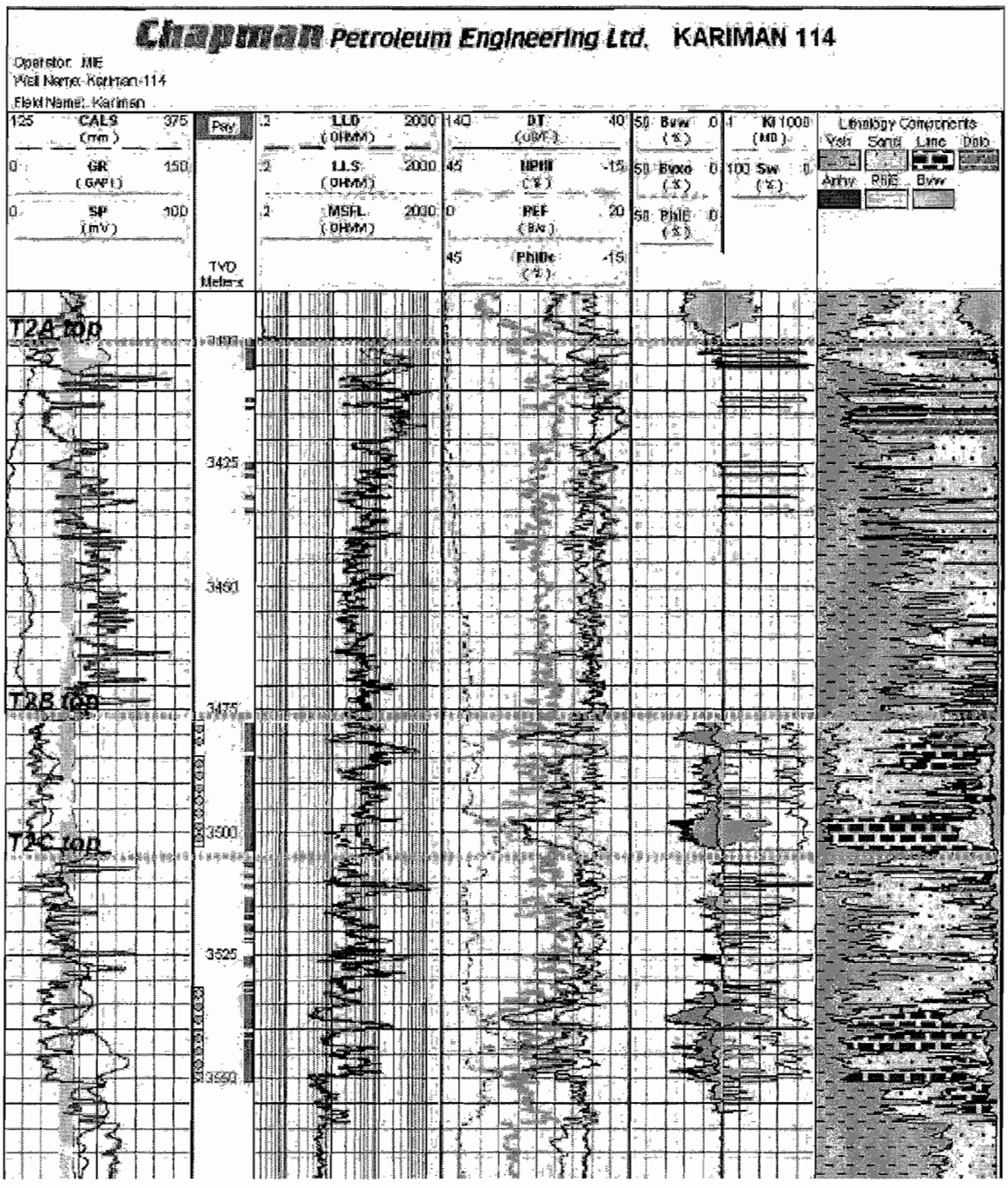
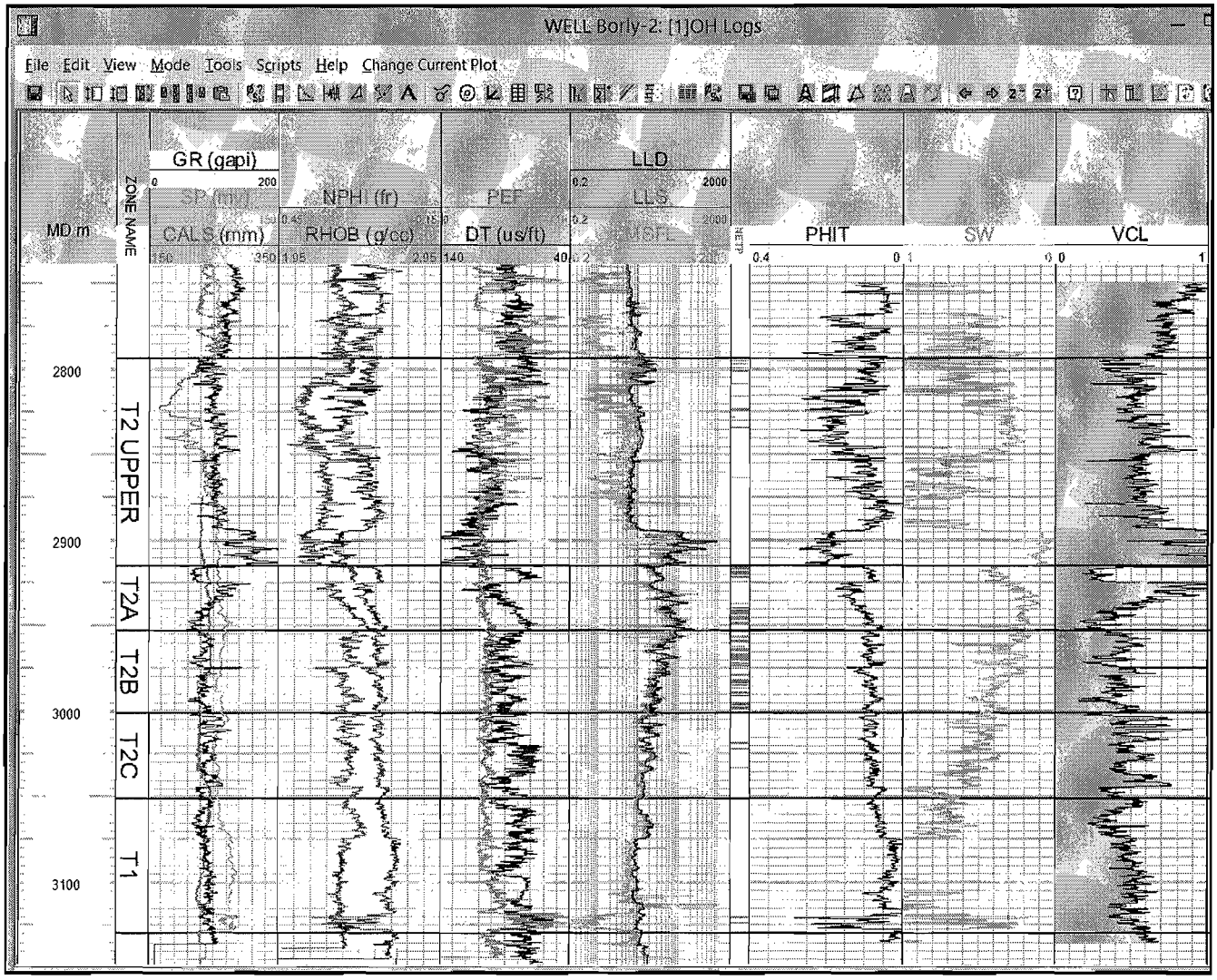


Figure 2-26 – Chapman Report Kariman-114 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Net Pay Flag "NETP" (track 7) of the plot was derived from Set-2 cutoffs:

VCL<= 0.5
PHIT>= 0.08
SW<=0.5

Figure 2-27 – RPS Petrophysical Analysis Results Borly-2ST1 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

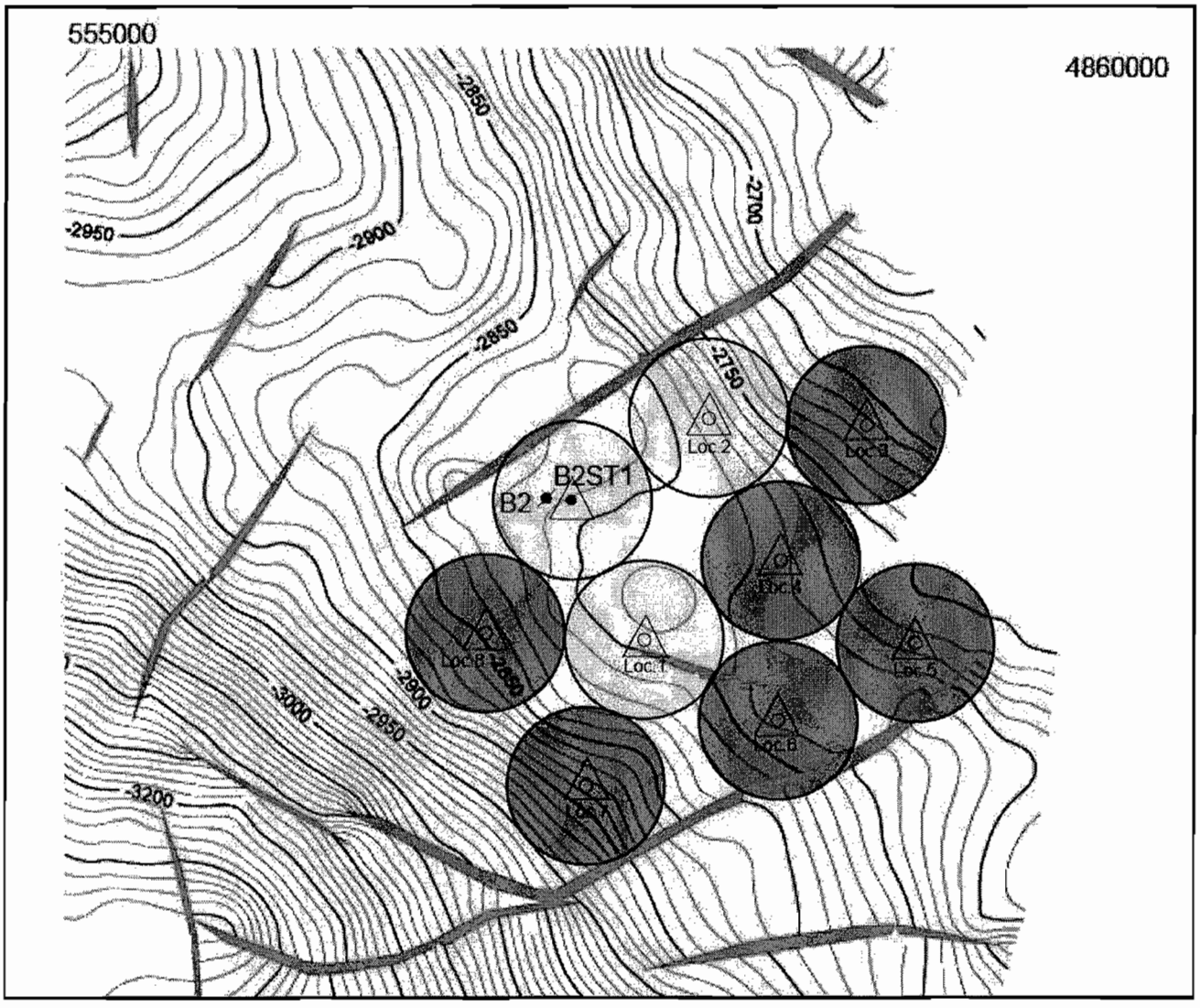
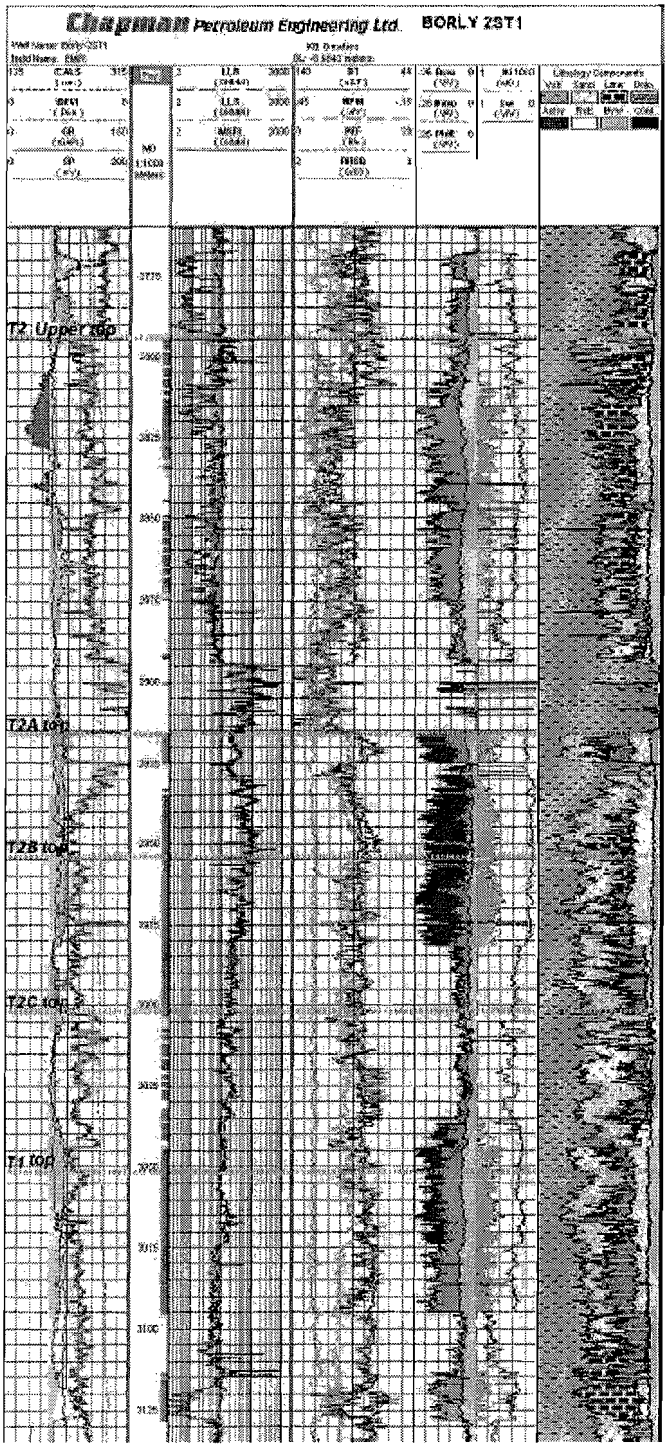


Figure 2-28 – Chapman Report Borly Structure T2 Upper Depth Map

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

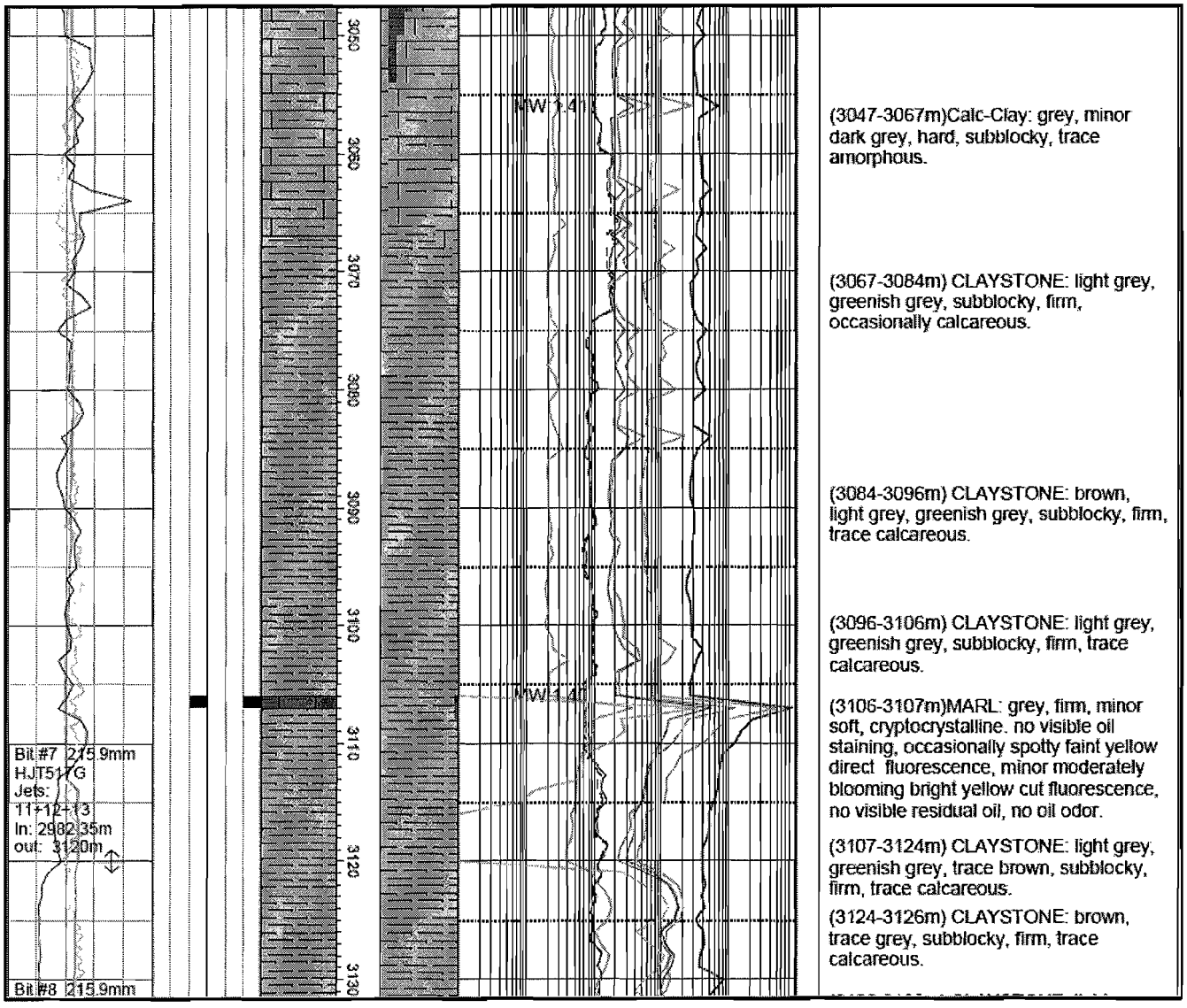


MIE HOLDINGS CORPORATION

ADEK BLOCK
OIL WELL LOG ANALYSIS
MANGISTAU OBLAST, KAZAKHSTAN
BORLY-2ST1
MIDDLE TRIASSIC T2 & LOWER TRIASSIC T1

JAN. 2016 JOB No. 6144 FIGURE No. 2a

Figure 2-29 – Chapman Report Borly-2ST1 CPI Plot



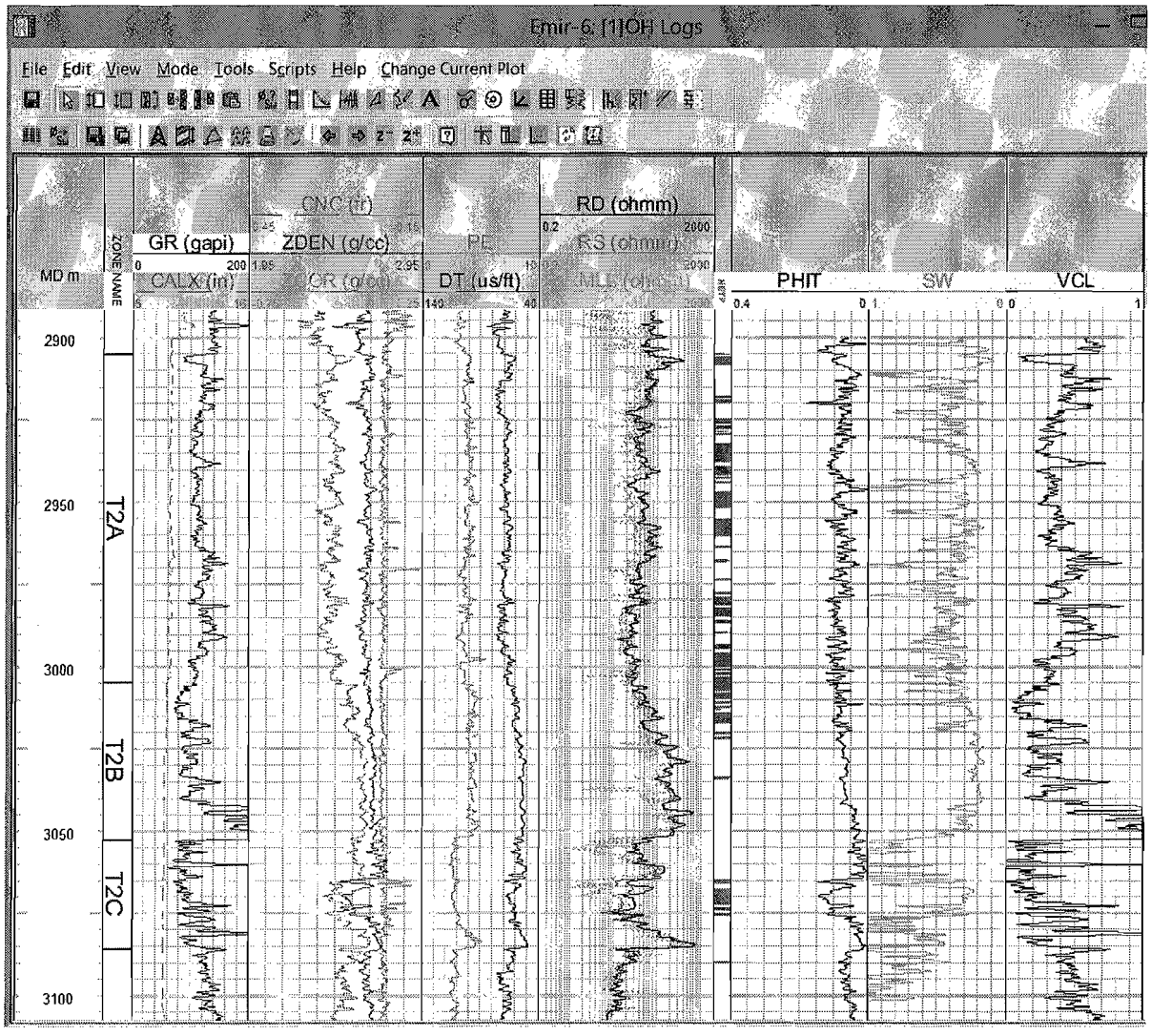
Mainly Claystone, very poor reservoir quality

Figure 2-30 – Borly-2 Formation T1 Mud Logs

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Net Pay Flag "NETP" (track 7) of the plot was derived from Set-2 cutoffs:

VCL<= 0.5
PHIT>= 0.08
SW<=0.5

Figure 2-31– RPS Petrophysical Analysis Results Emir-6 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

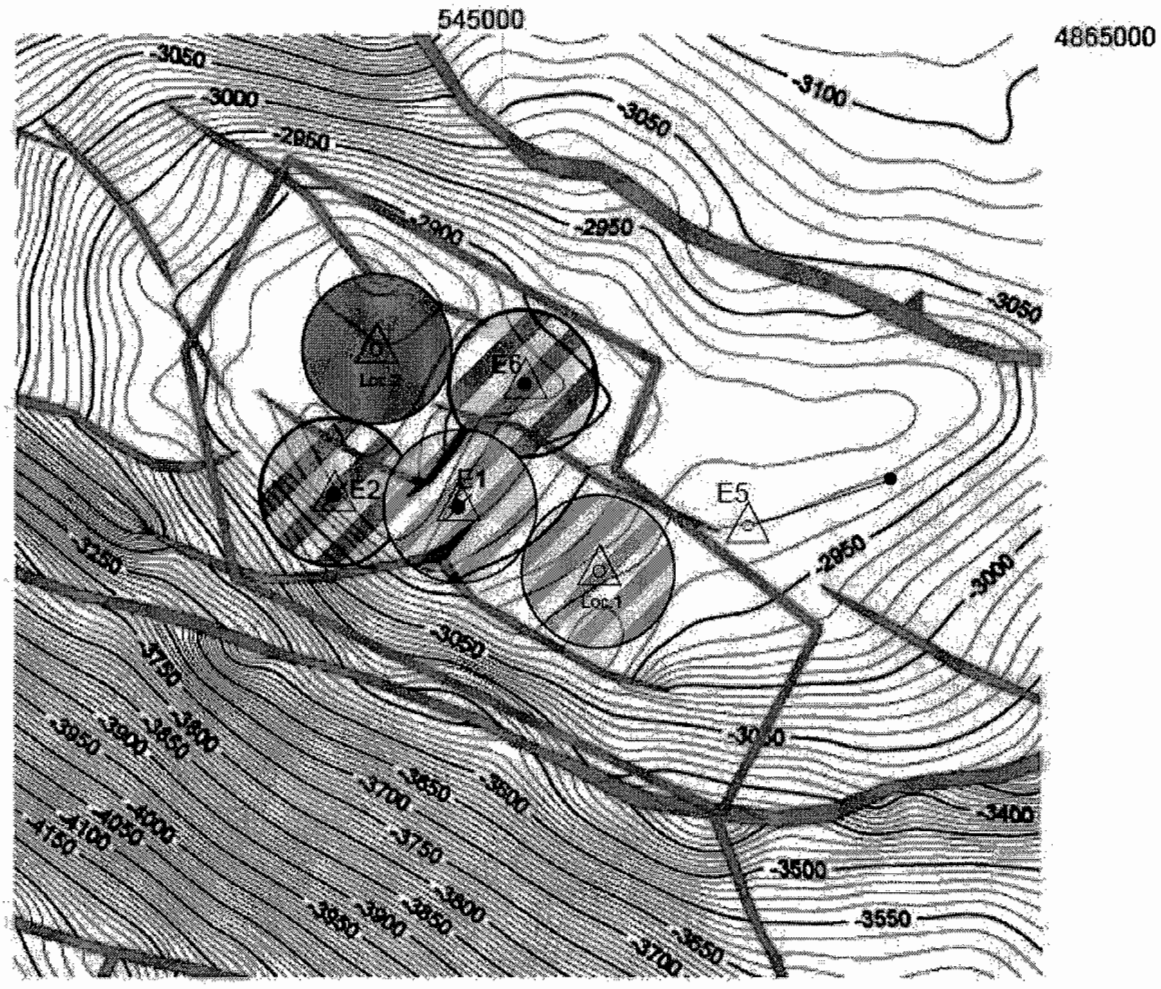


Figure 2-32– Chapman Report Emir Structure T2A Depth Map

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

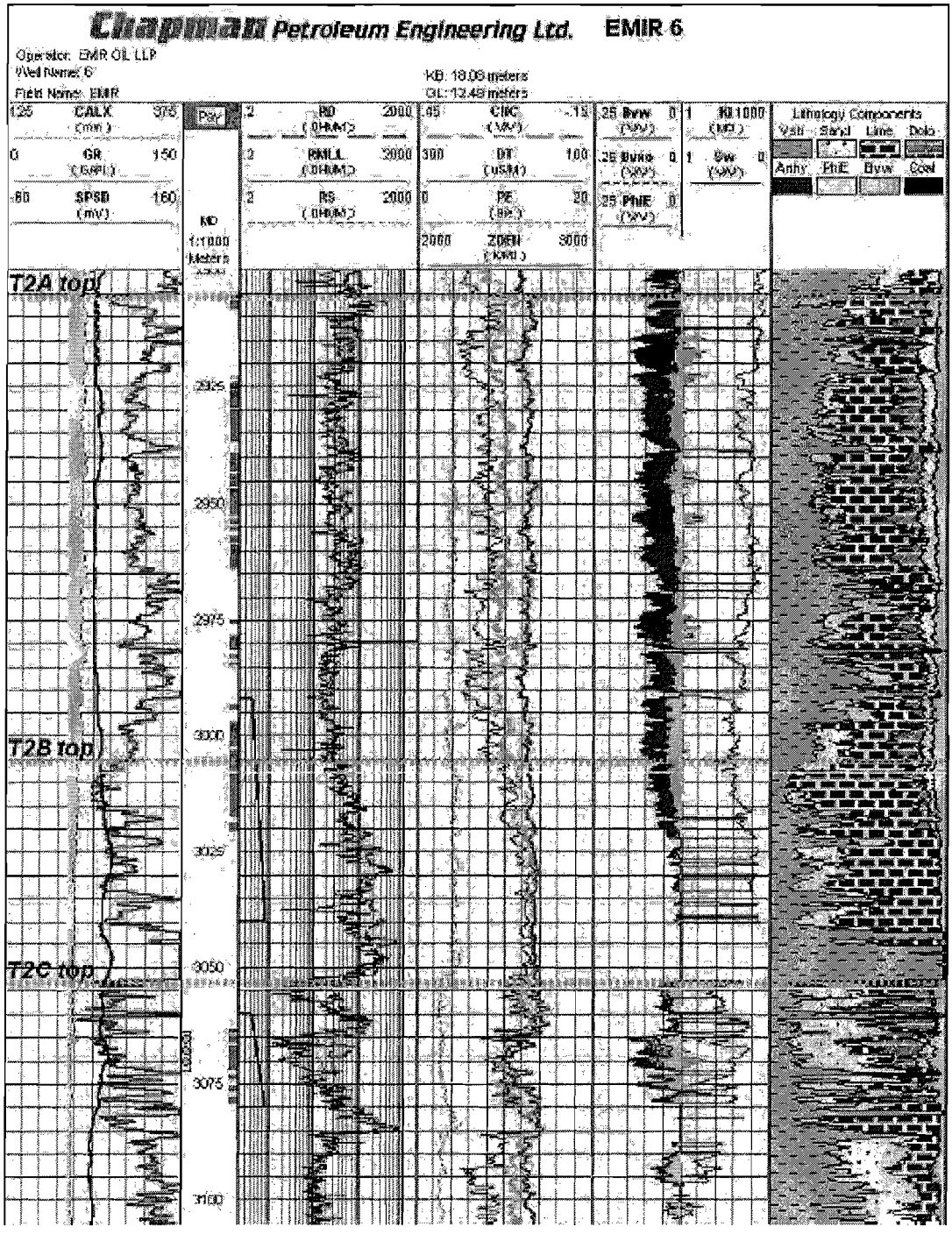
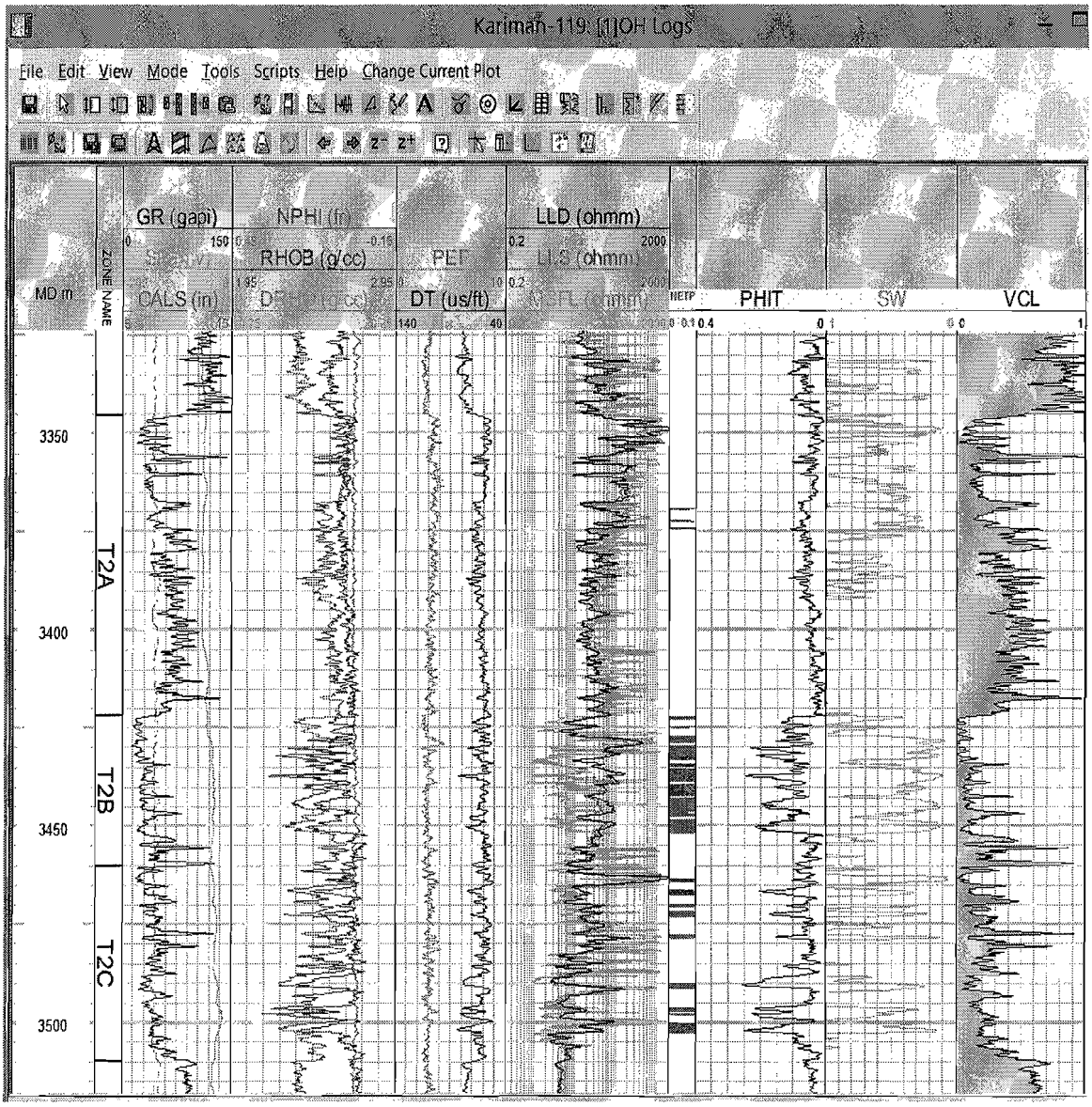


Figure 2-33 – Chapman Report Emir-6 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Net Pay Flag "NETP" (track 7) of the plot was derived from Set-2 cutoffs:

VCL<= 0.5
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SW<=0.5

Figure 2-34– RPS Petrophysical Analysis Results Kariman-119 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

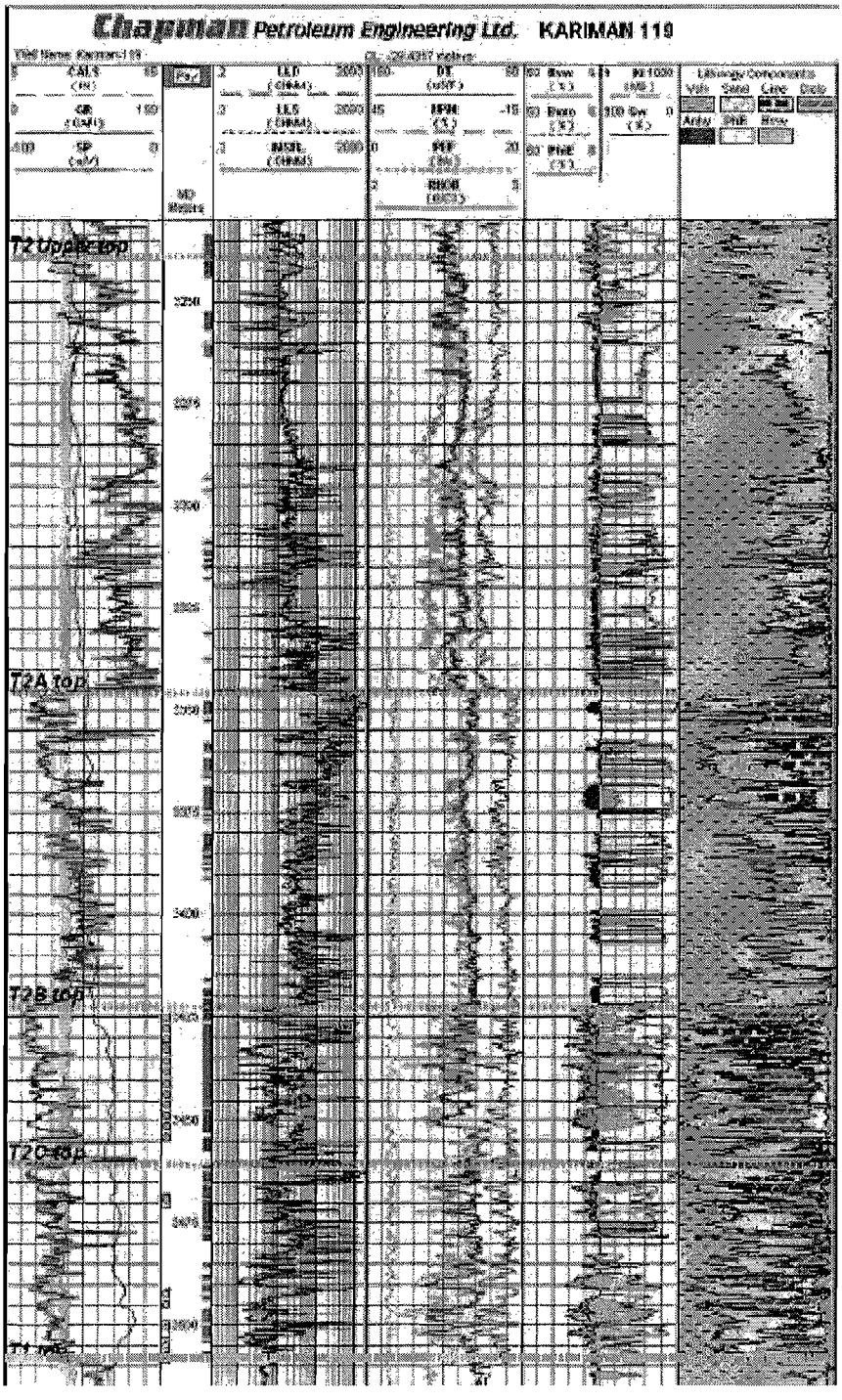
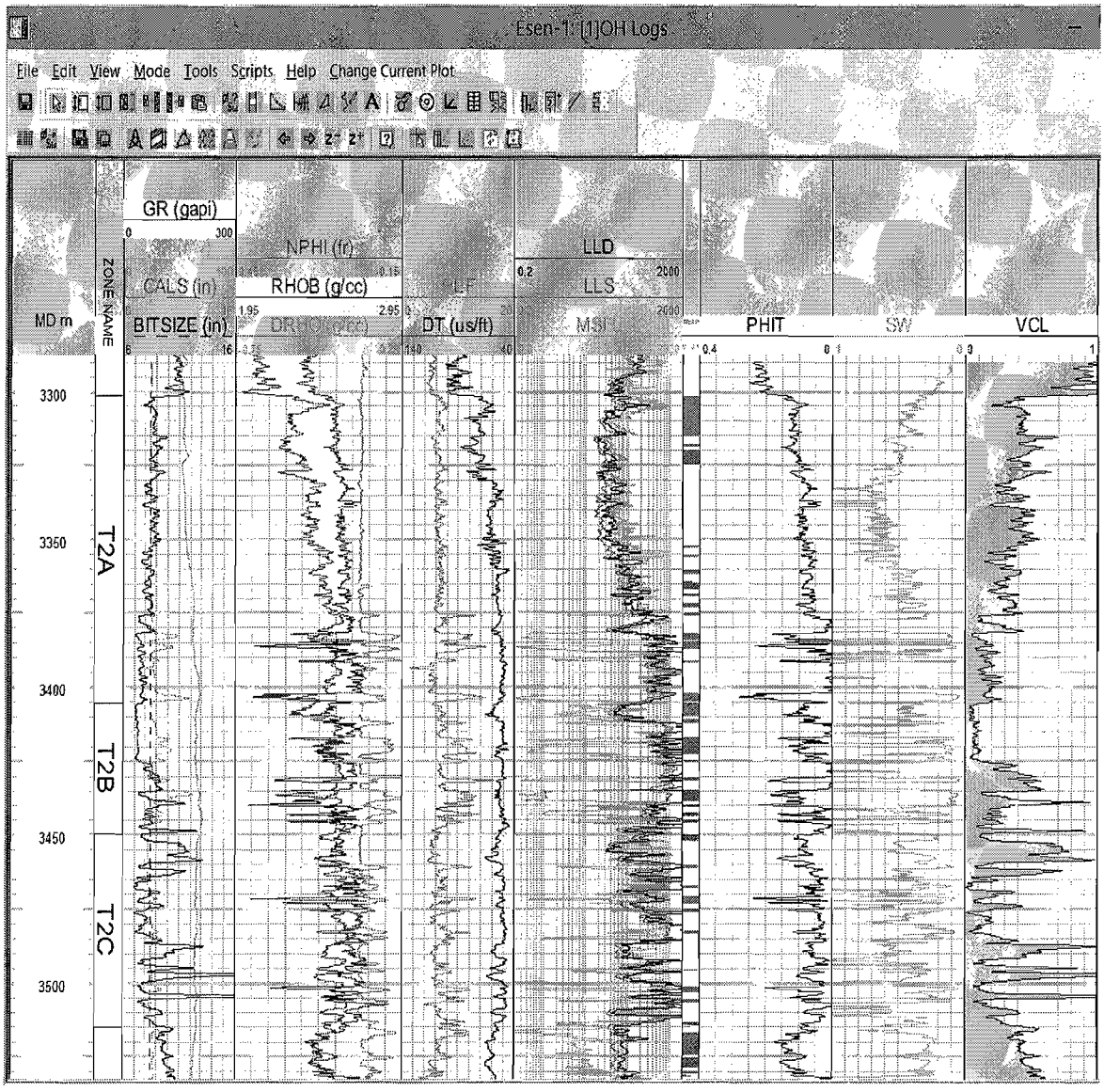


Figure 2-35 – Chapman Report Kariman-119 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016



Net Pay Flag "NETP" (track 7) of the plot was derived from Set-2 cutoffs:

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SW<=0.5

Figure 2-36– RPS Petrophysical Analysis Results Yessen-1 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

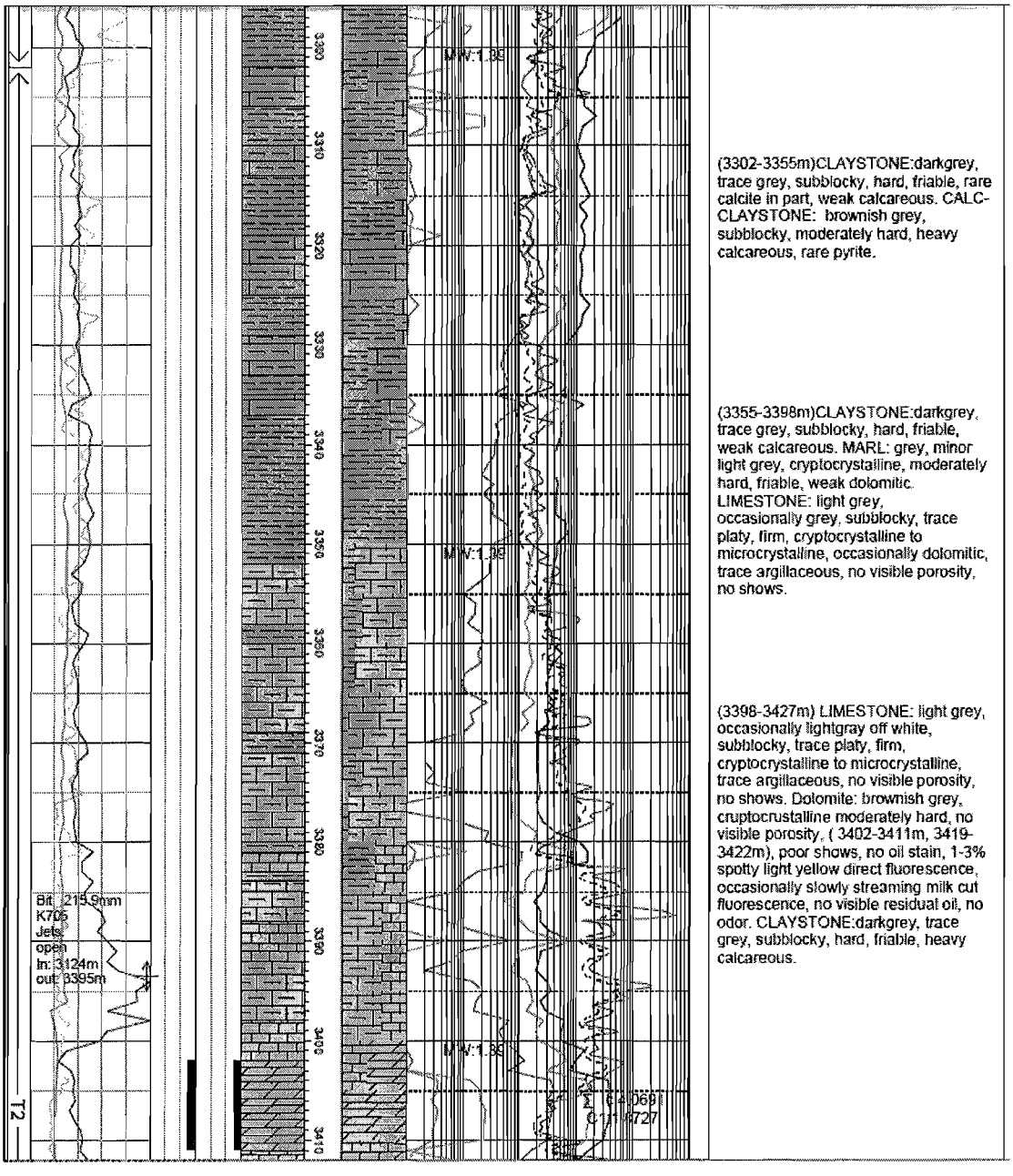

Figure 2-37 – Yessen-1 Formation T2A Mud Logs

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

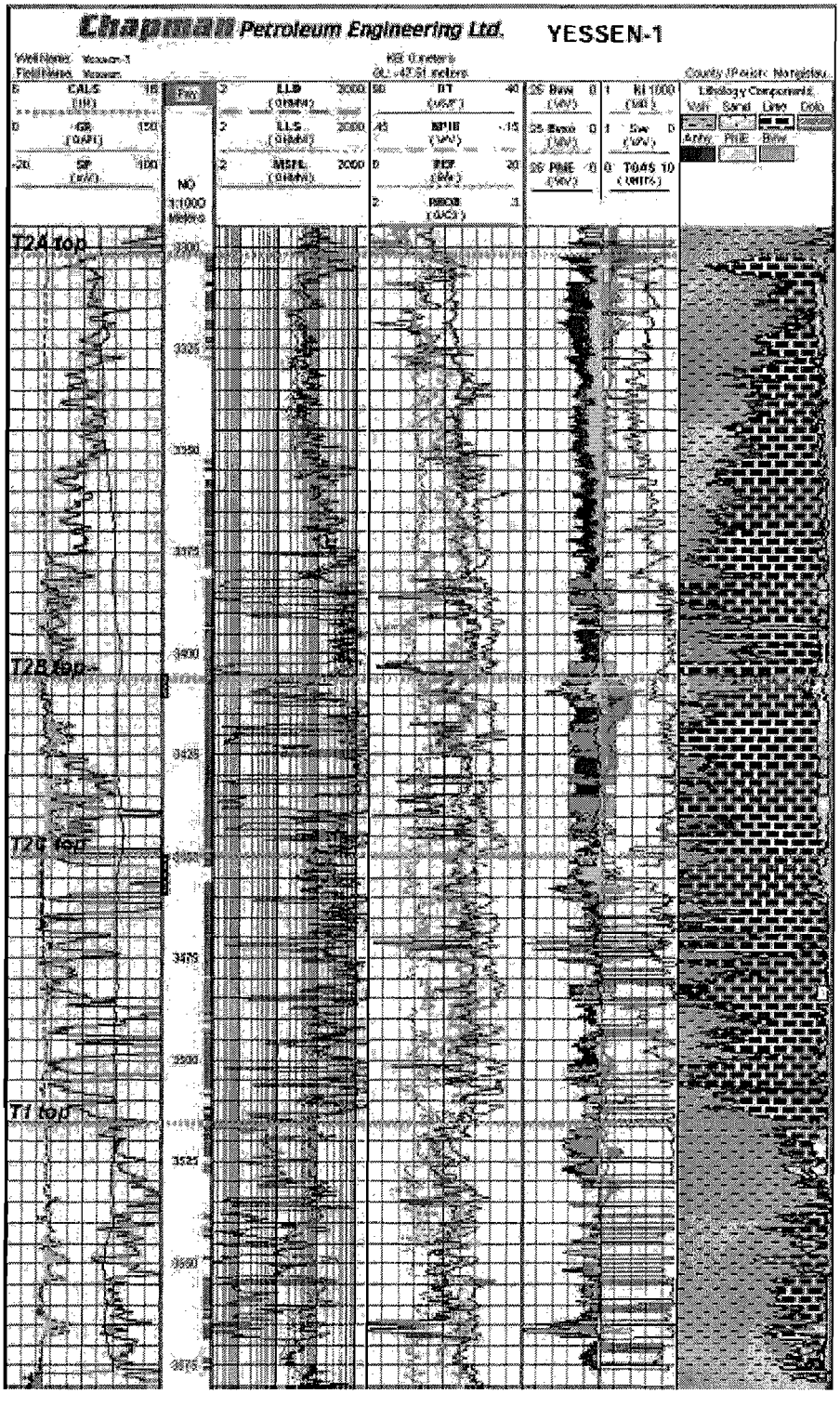

Figure 2-38 – Chapman Report Yessen-1 CPI Plot

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

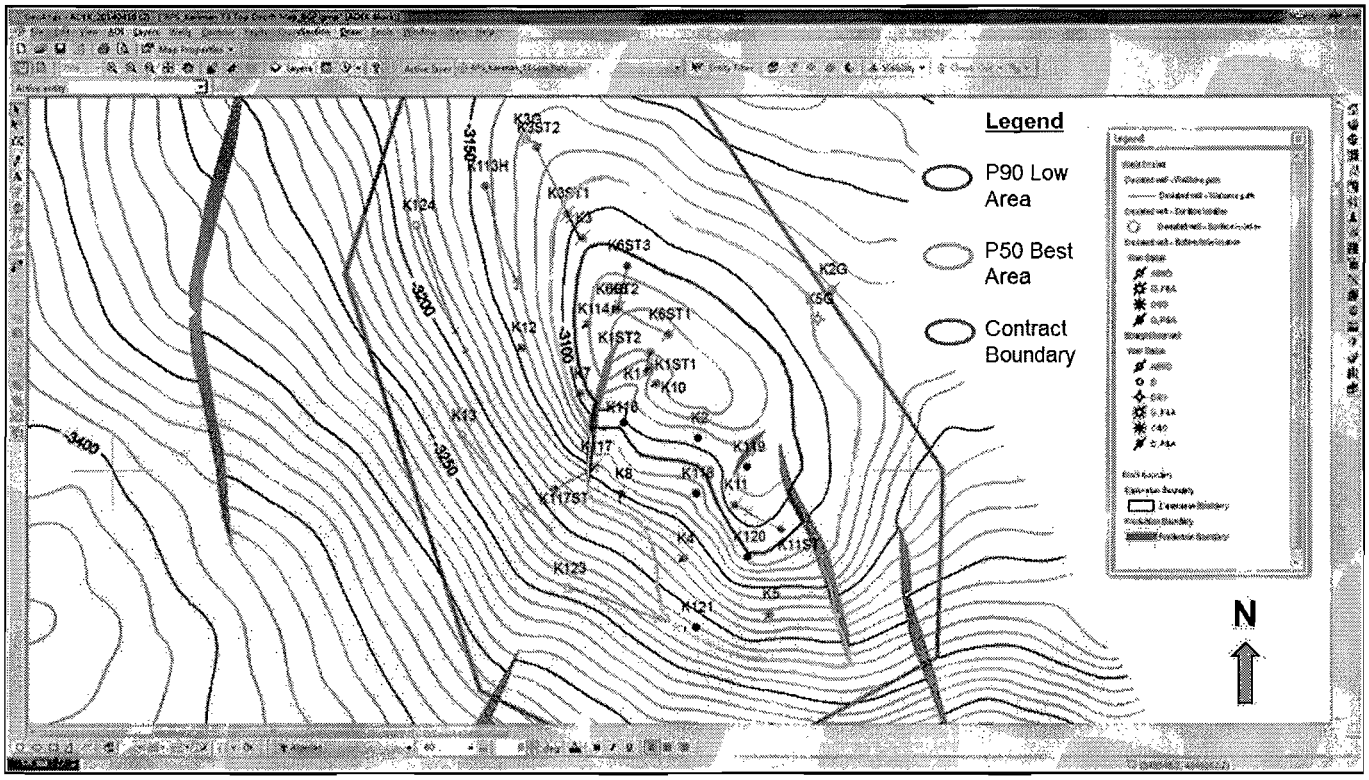

Figure 2-39 – Kariman Field Upper T3 Sands Depth Map (RPS Volumetric Area Estimates)

RPS

INDEPENDENT TECHNICAL EXPERT REPORT

OF EMIR-OIL CONCESSION BLOCK, ONSHORE KAZAKHSTAN AS OF JULY 1, 2016

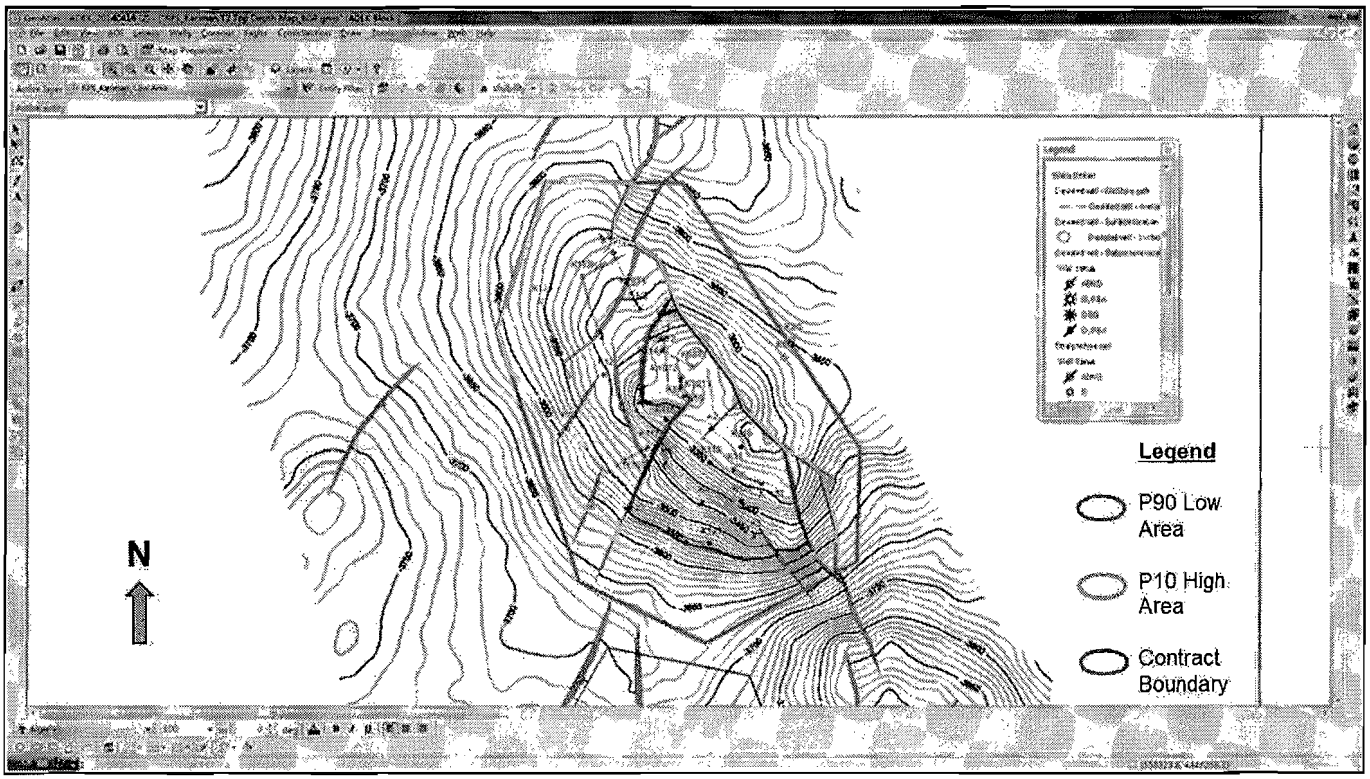

Figure 2-40 – Kariman Field T2 Upper Sands Depth Map (RPS Volumetric Area Estimates)