



ENPEDCO

UNLOCKING OF THE HIDDEN POTENTIAL
OF ALAM EL-BUIEB
ABU GHARADIG BASIN, WESTERN DESERT
EGYPT

09/10/2022



Contents

- Introduction
- Enpedco history & Shareholders
- Enpedco block activities
- AEB regional distribution in North Africa
- W 29-3 & W80 AEB discoveries & achievements

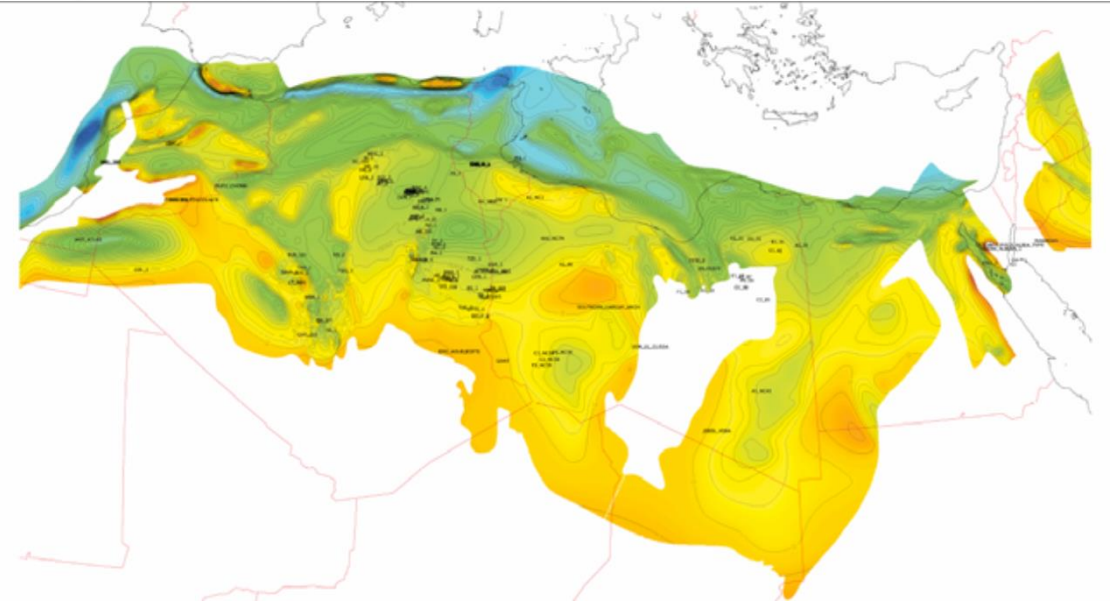
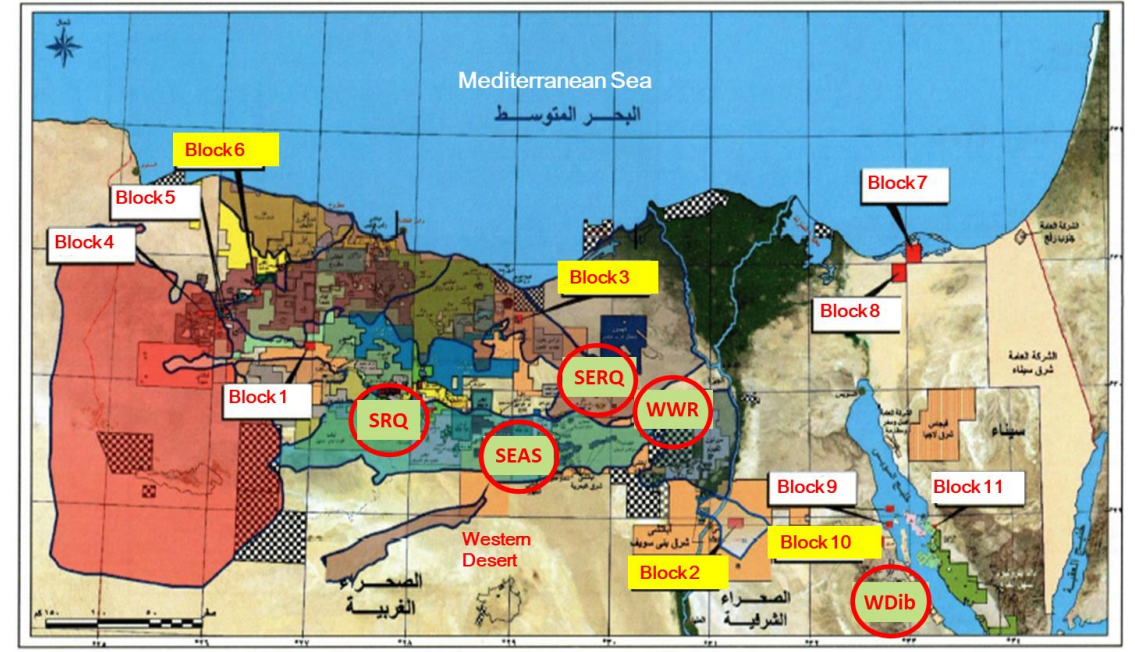


Figure 1

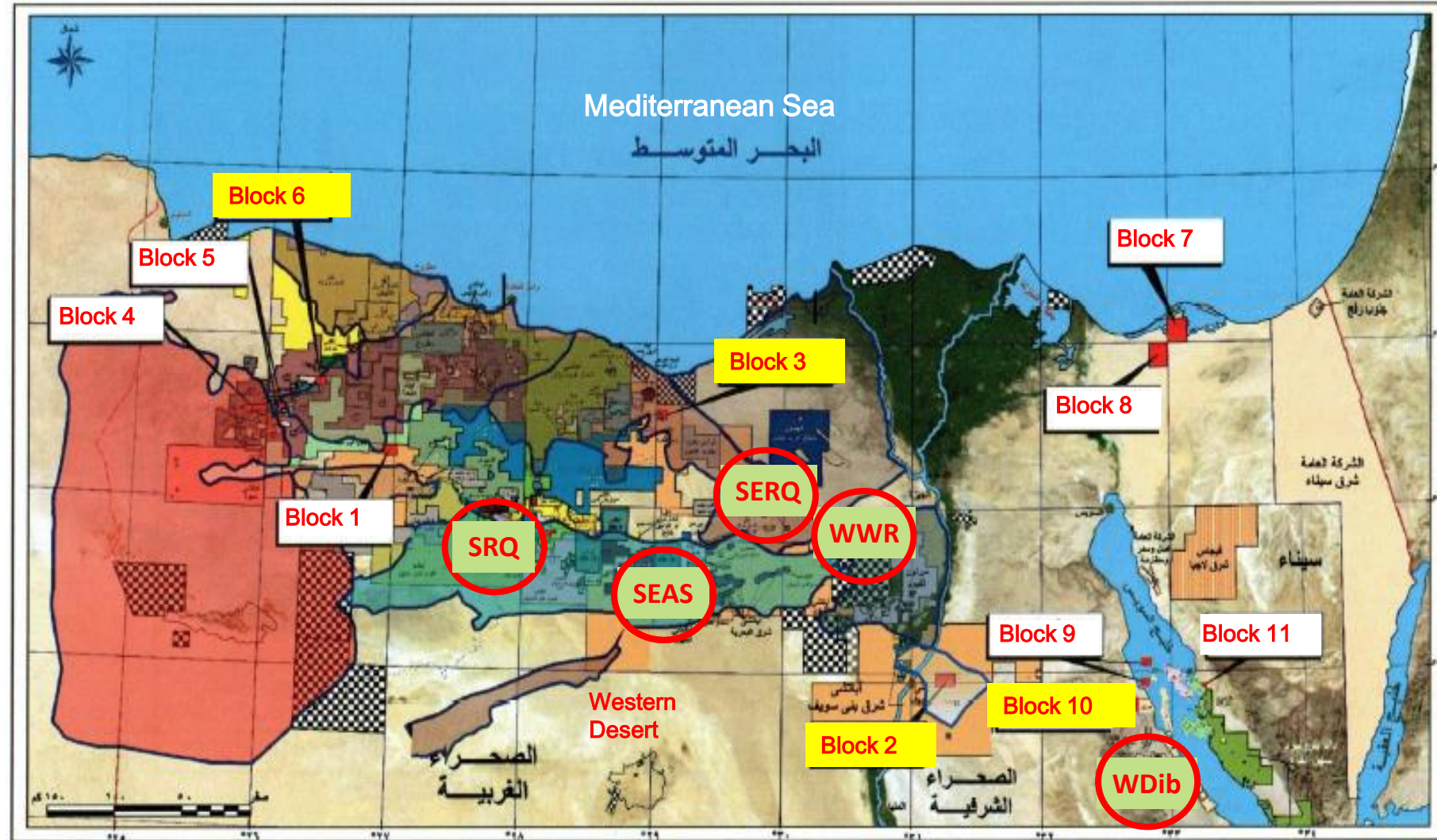
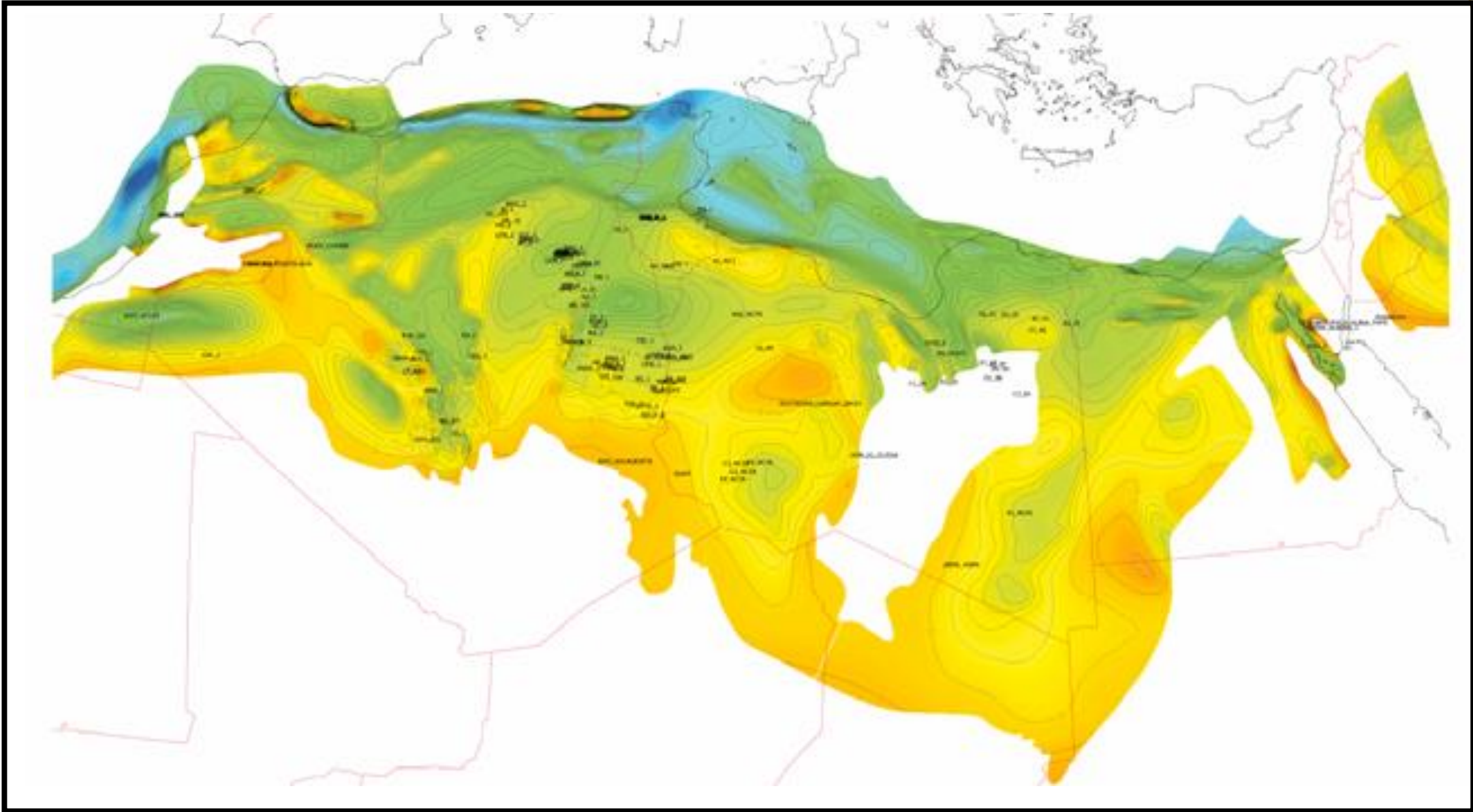
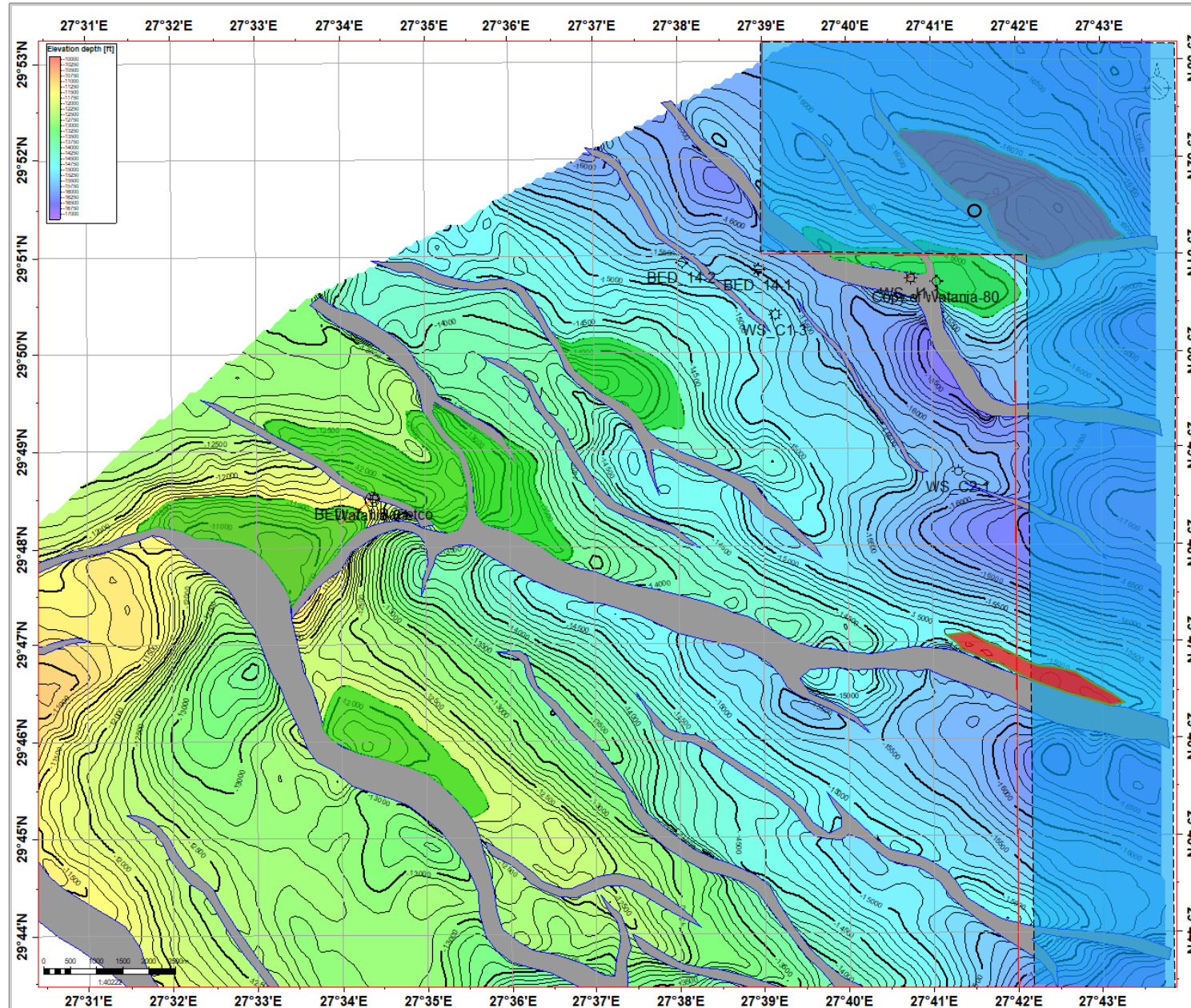


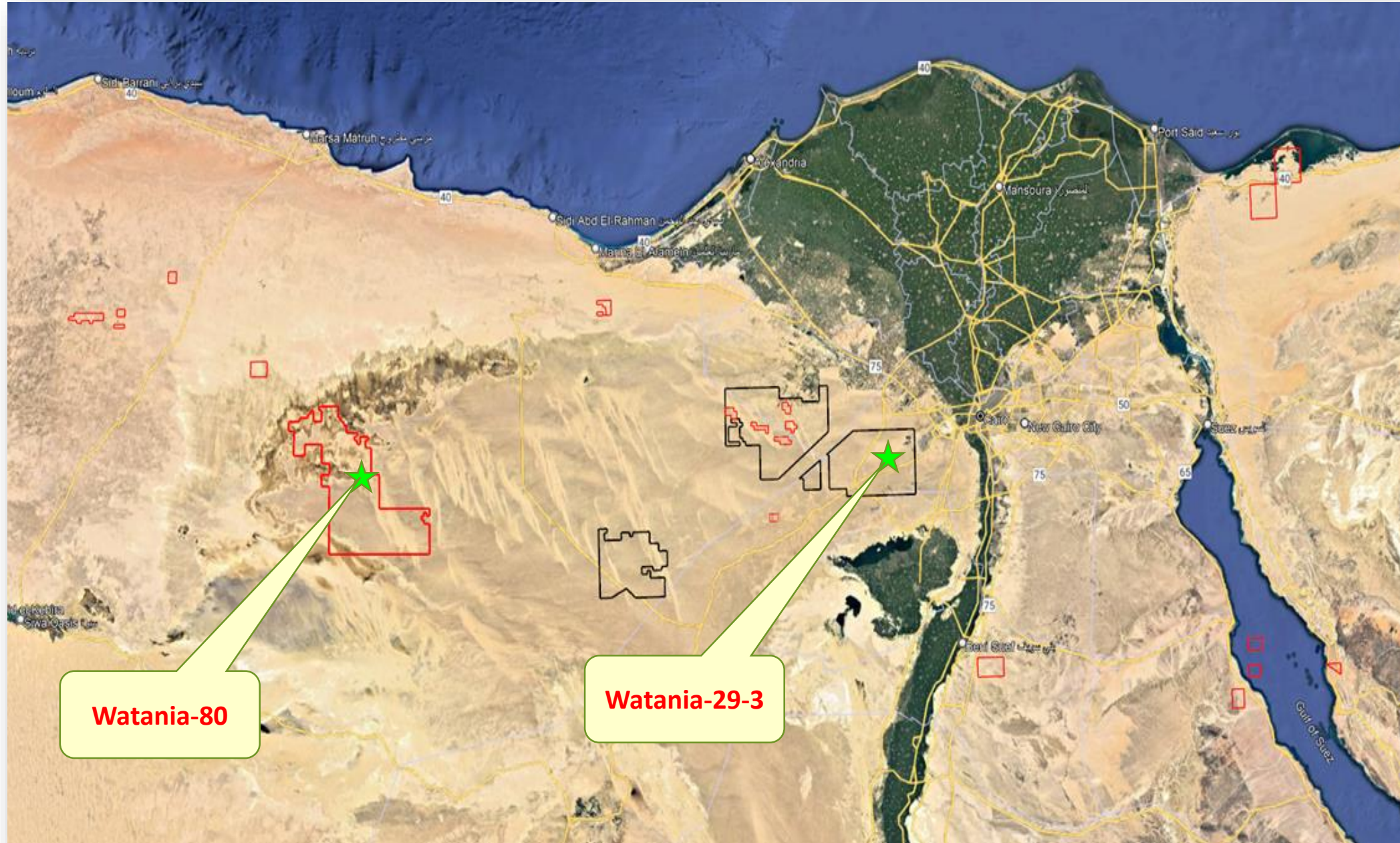
Figure 1



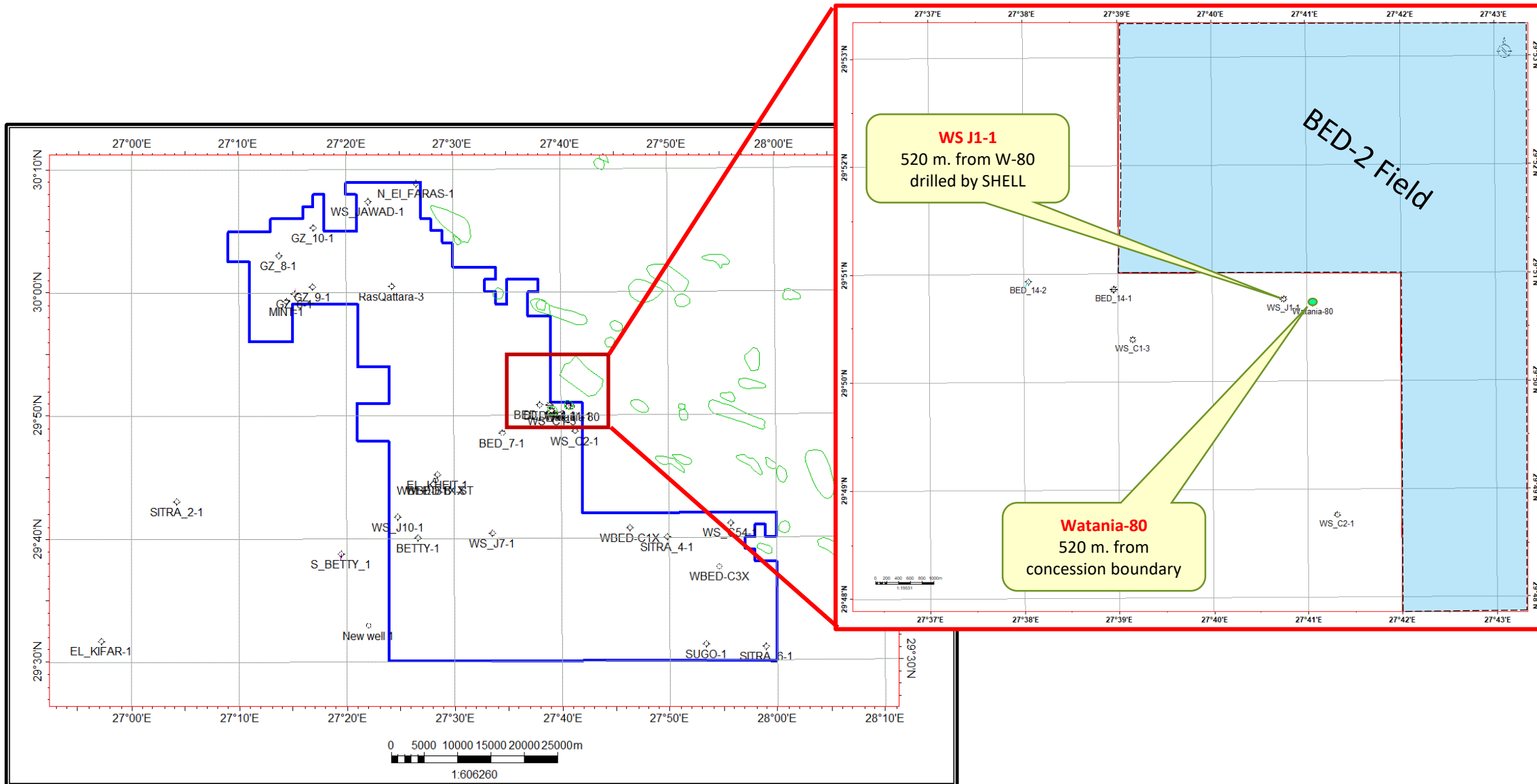
AEB W-80 AEB RESERVOIR LEADS



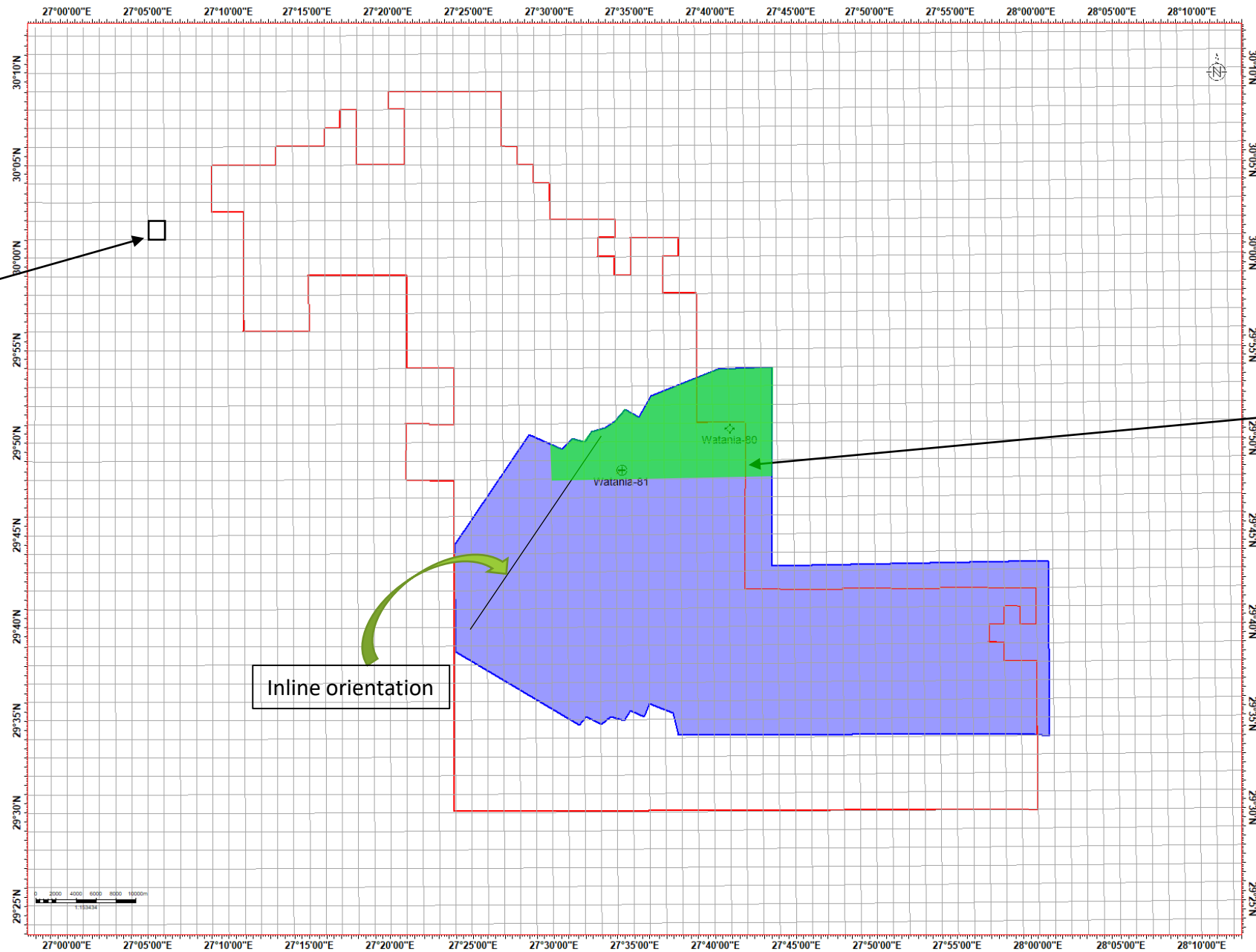
AEB TESTED LOCATIONS



WATANIA-80 LOCATION MAP



WATANIA-80 SEISMIC DATA



Minute by minute grid.
(1 minute almost 3 Km²)

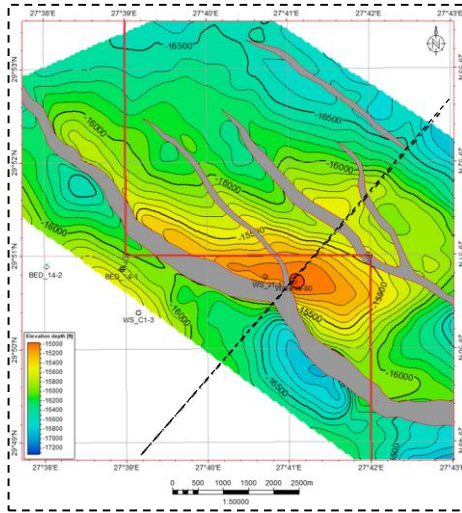
PSDM
Re-processed 2022

Depth cube used for interpretation

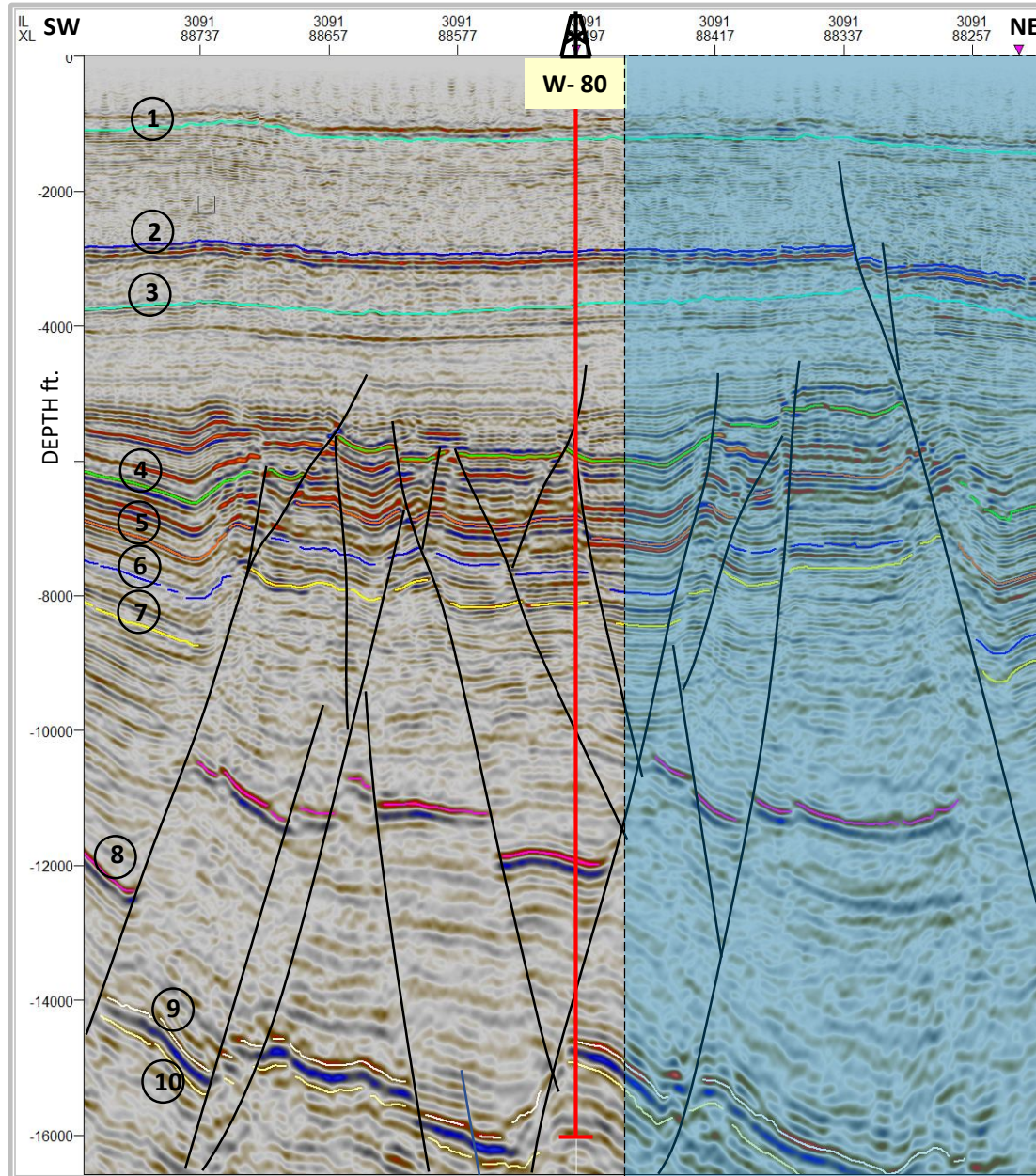
Very accurate cube resulting in a Depth error around 4 ft. @ target level.

Inline orientation

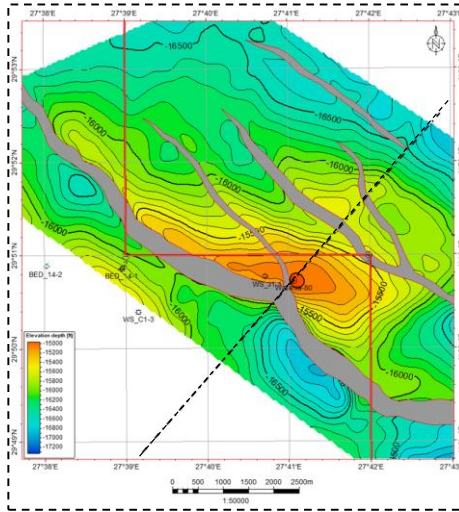
WATANIA-80 GENERAL SEISMIC INLINE (DIP)



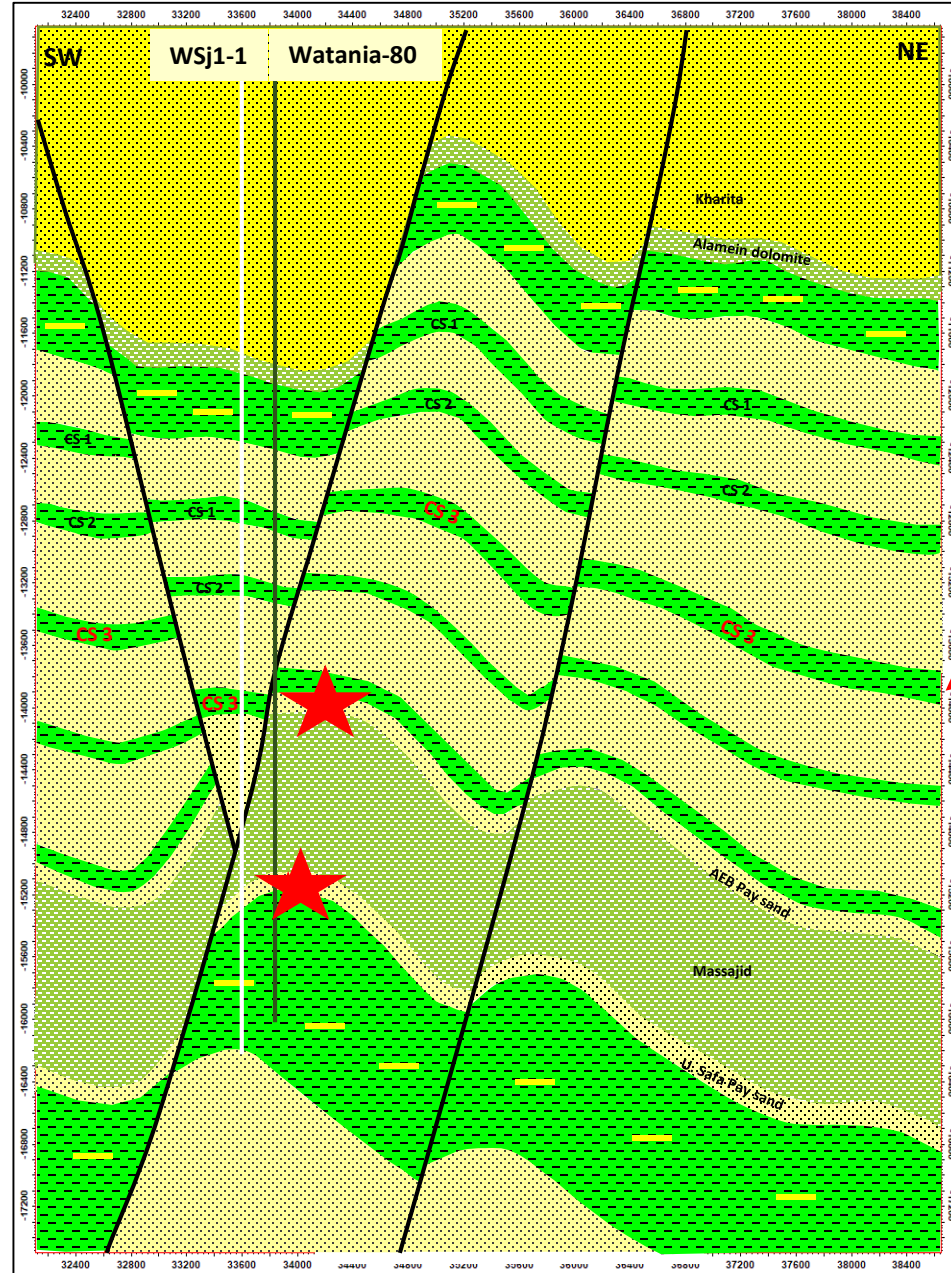
- 1 Top Dabaa
- 2 Top Apollonia
- 3 Top khoman
- 4 Top A/R A
- 5 Top A/R C
- 6 Top Bahariya
- 7 Top Kharita
- 8 Top Alam Dol
- 9 Top Jurassic
- 10 Top Upper Safa



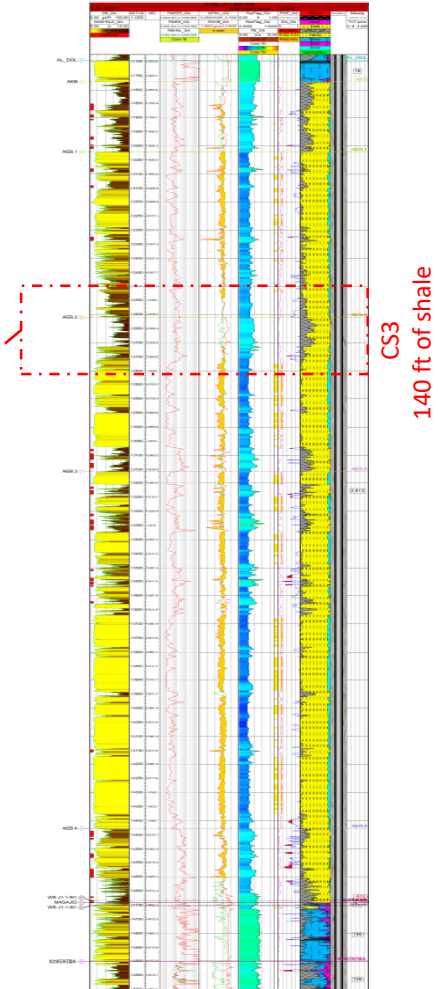
WATANIA-80 GEO-SEISMIC INLINE (DIP)



- Following interpretation of Top AEB and Top Jurassic
- Interpretation of correlated shales (CS) with regional extension and presence was carried (most unlikely to be performed by interpreters)
- Checking and optimizing best juxtapositions into leads portfolio.
- CS3 thickness is about 140'.



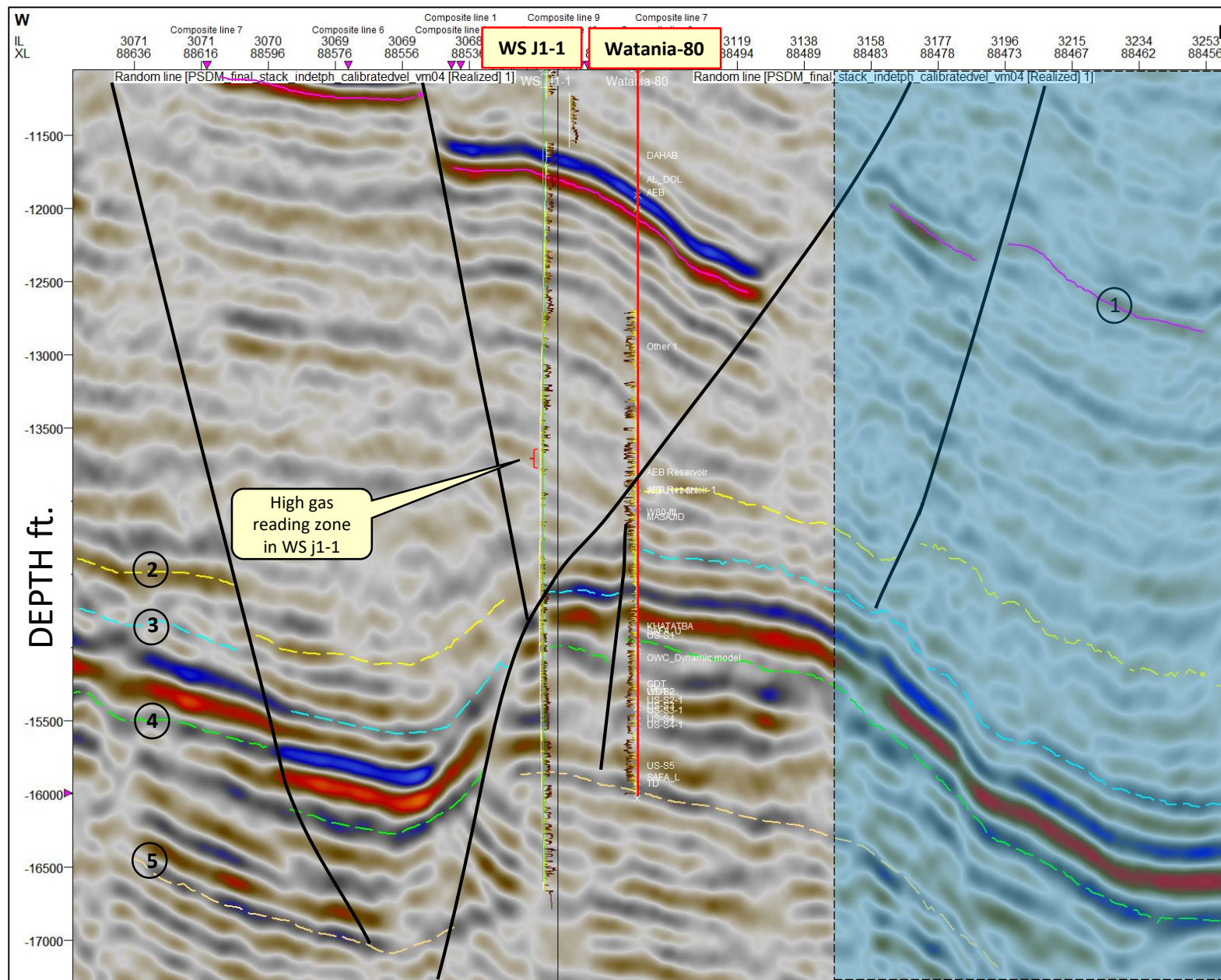
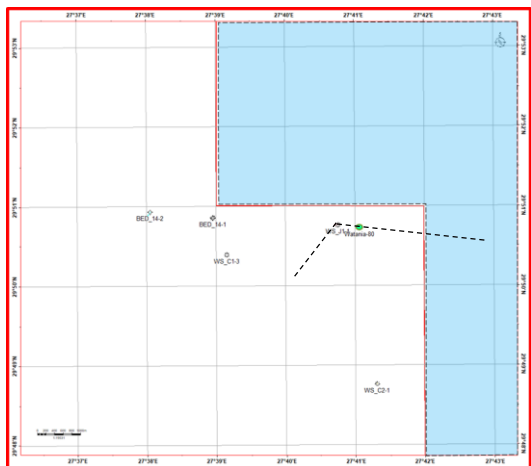
WSj1-1 well







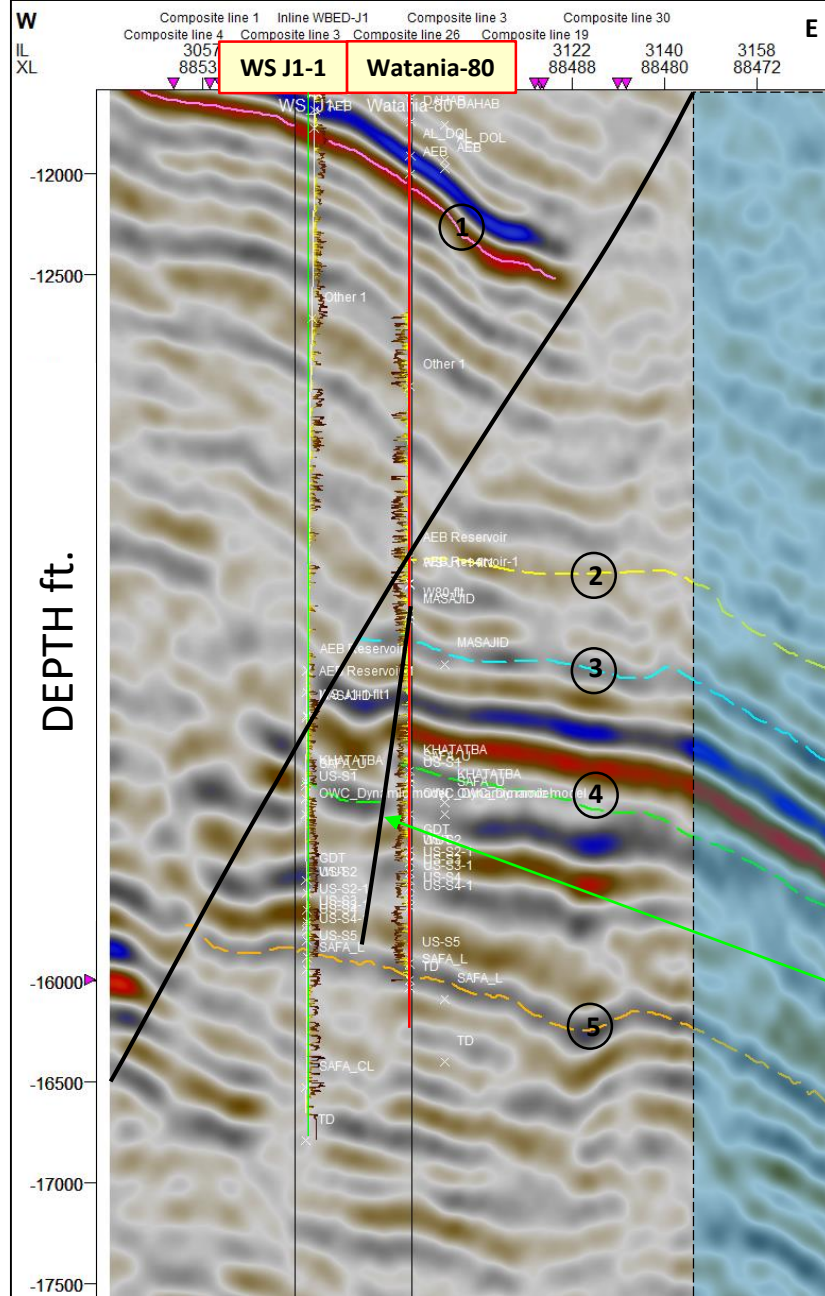
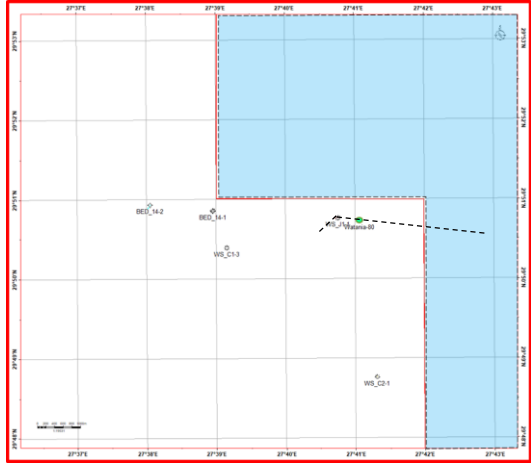
WATANIA-80 ARBITRARY SEISMIC LINE



- ① Near Top AEB
- ② Top AEB reservoir
- ③ Top Jur. Massajid
- ④ Top Upper Safa
- ⑤ Top Lower Safa

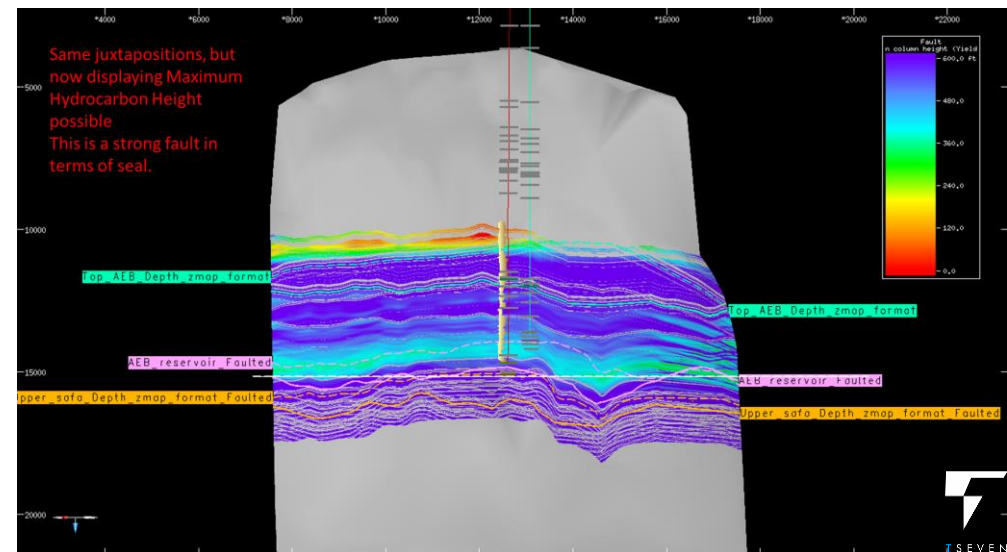
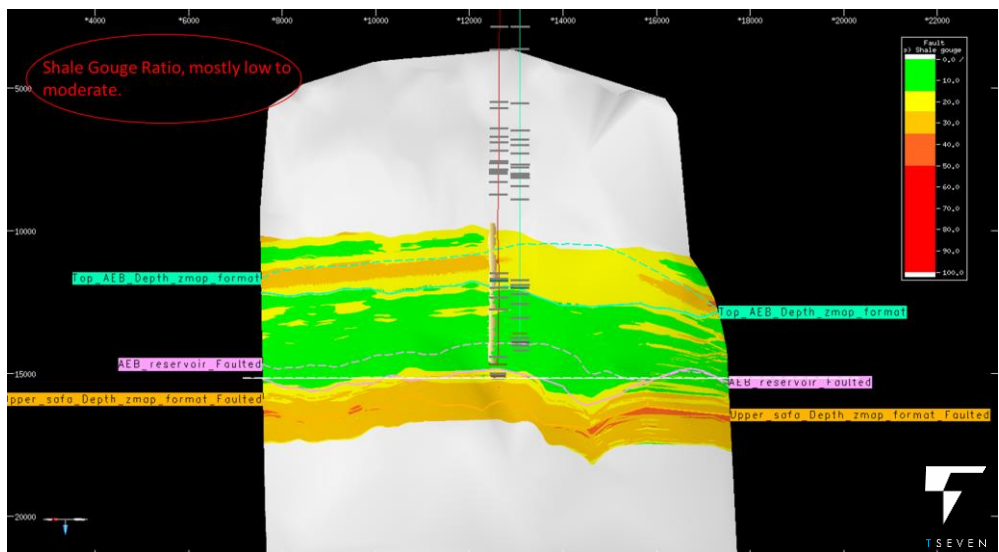
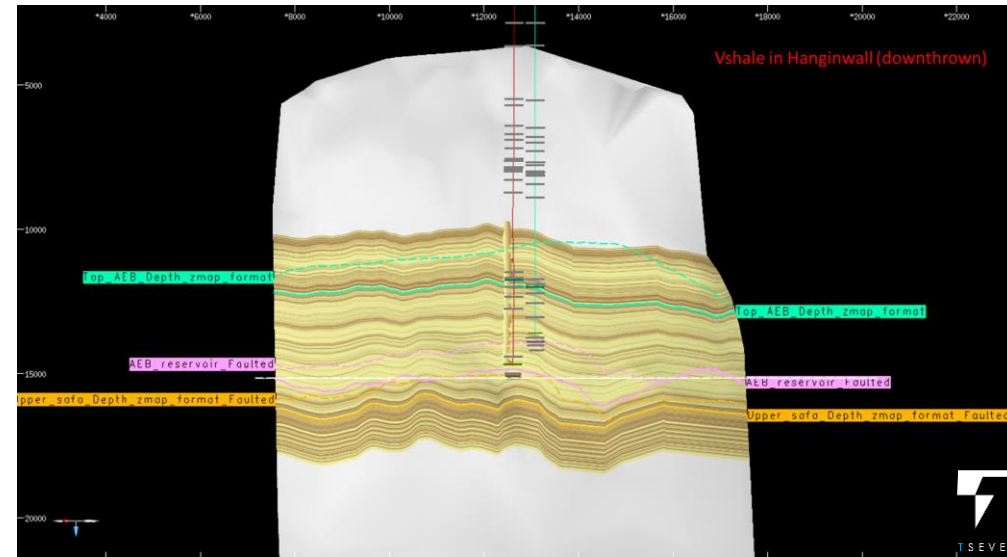
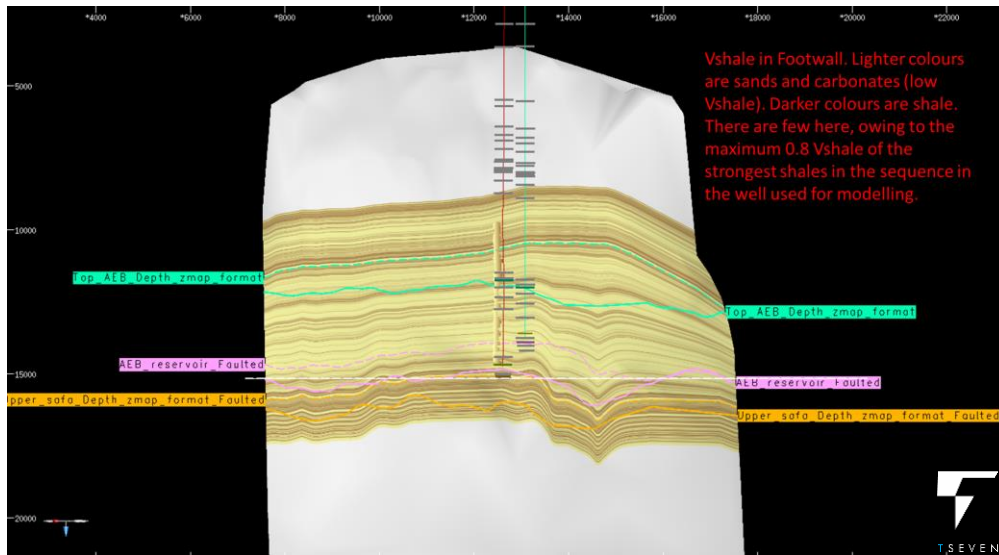
500 m

WATANIA-80 ARBITRARY SEISMIC LINE



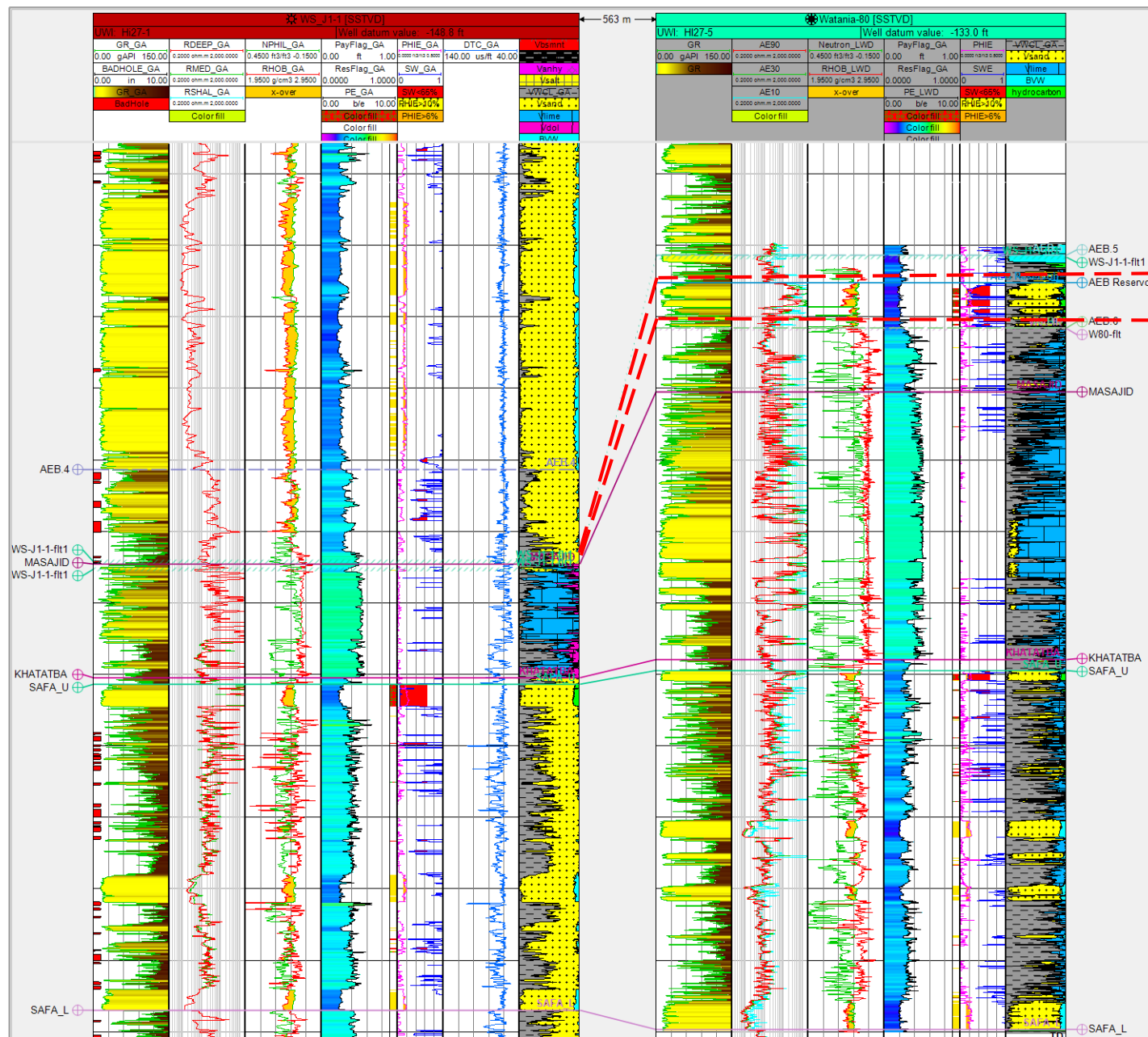
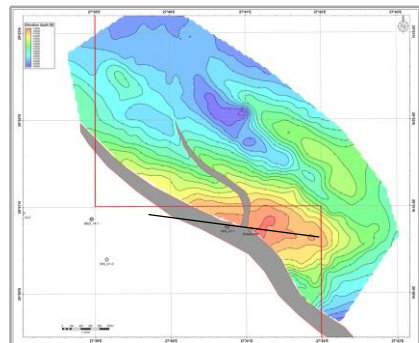
Non sealing fault
At Upper Safa reservoir
Communication across fault proven
by pressure

WATANIA-80 FAULT SEAL



460 ' of column were given as a result of the analysis

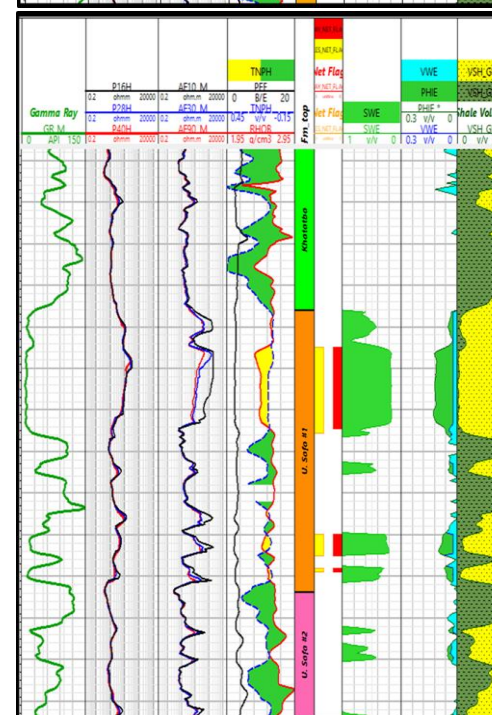
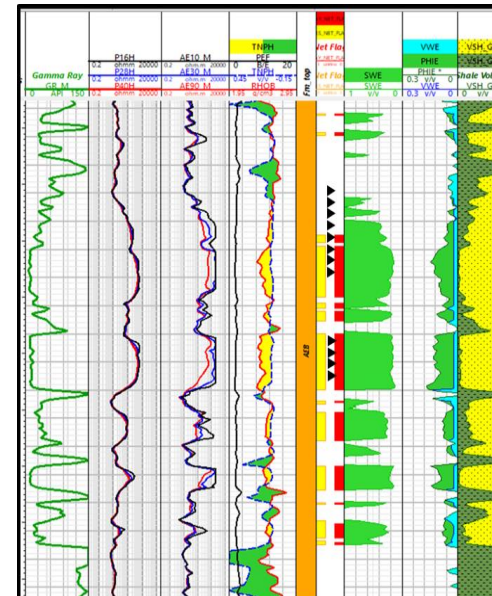
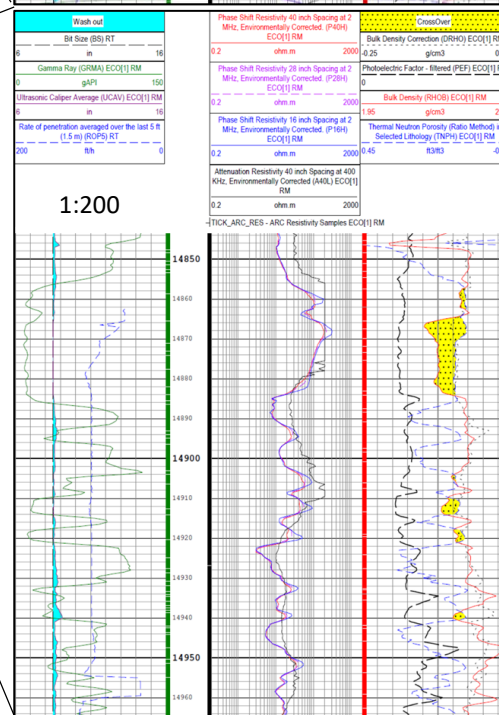
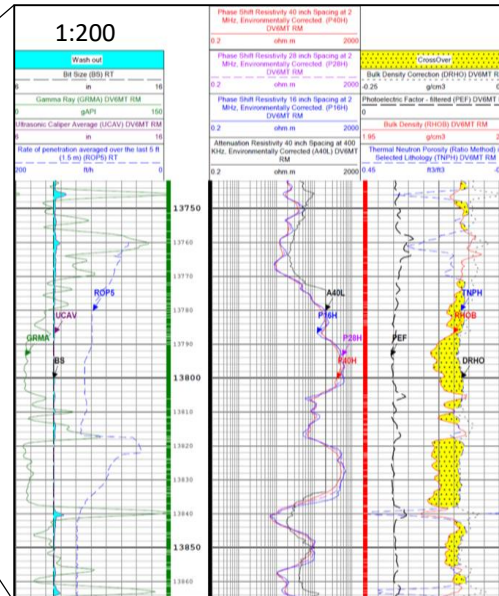
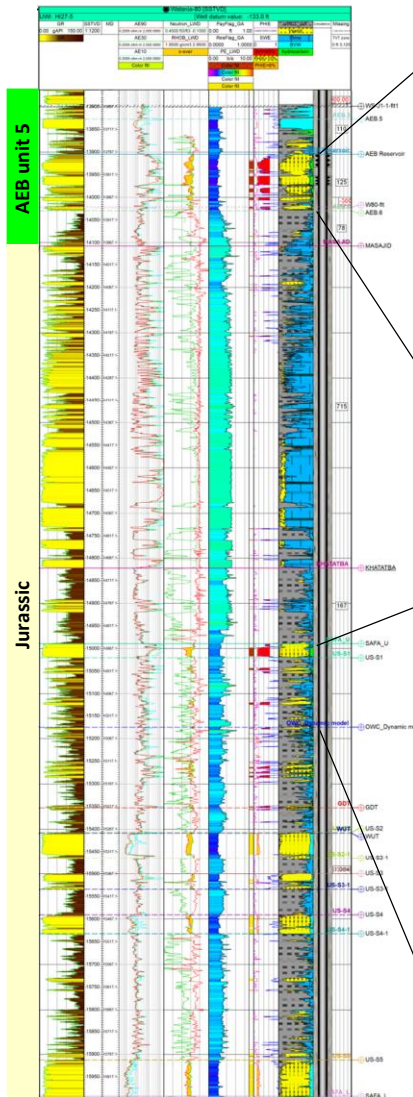
WATANIA-80 WELL STRUC. CORRELATION



AEB unit 5 sand faulted out in WS J1-1

U. Safa higher 50 ft. than WS J1-1

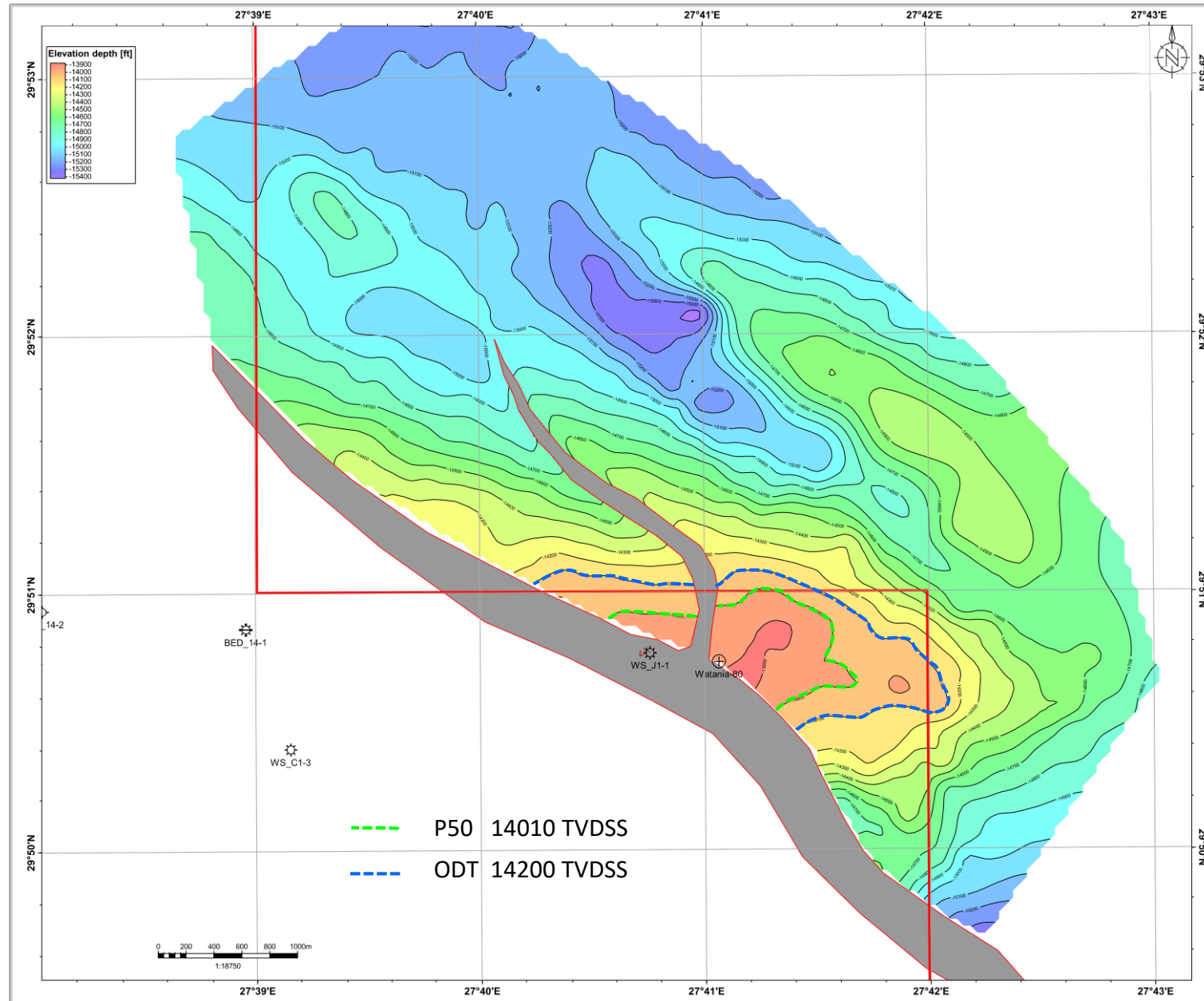
WATANIA-80 WELL RESULTS



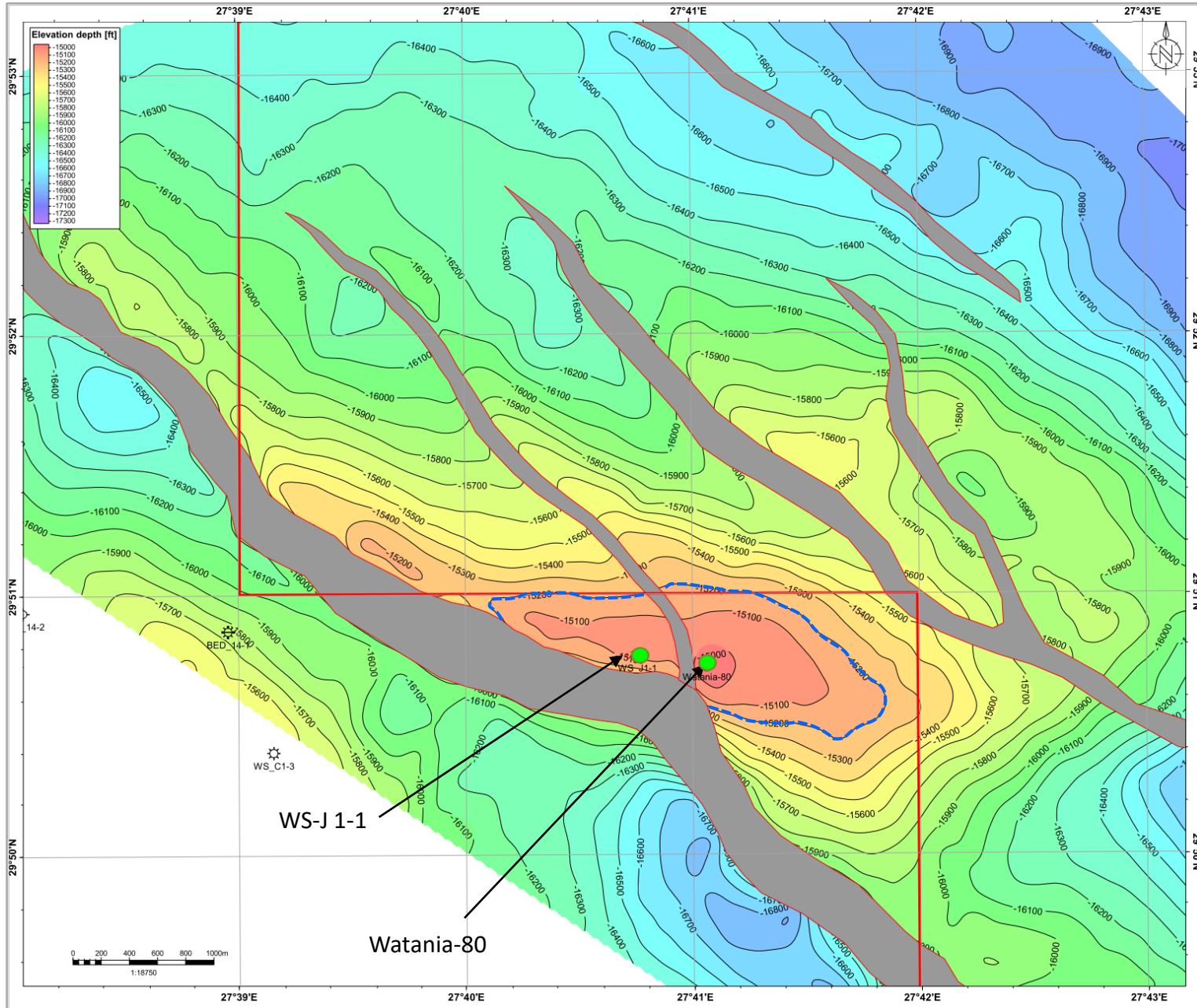
13780` md
77 Ft net pay,
50 Ft perforated,
10 % average porosity,
22% water saturation

14860` md
25 Ft net pay
11 % porosity
19% water saturation.

WATANIA-80 TOP AEB RES. DEPTH MAP



WATANIA-80 TOP U. SAFA RESERVOIR



Well showed communication with WS J1-1 and sharing ODT @ 15200 TVDSS

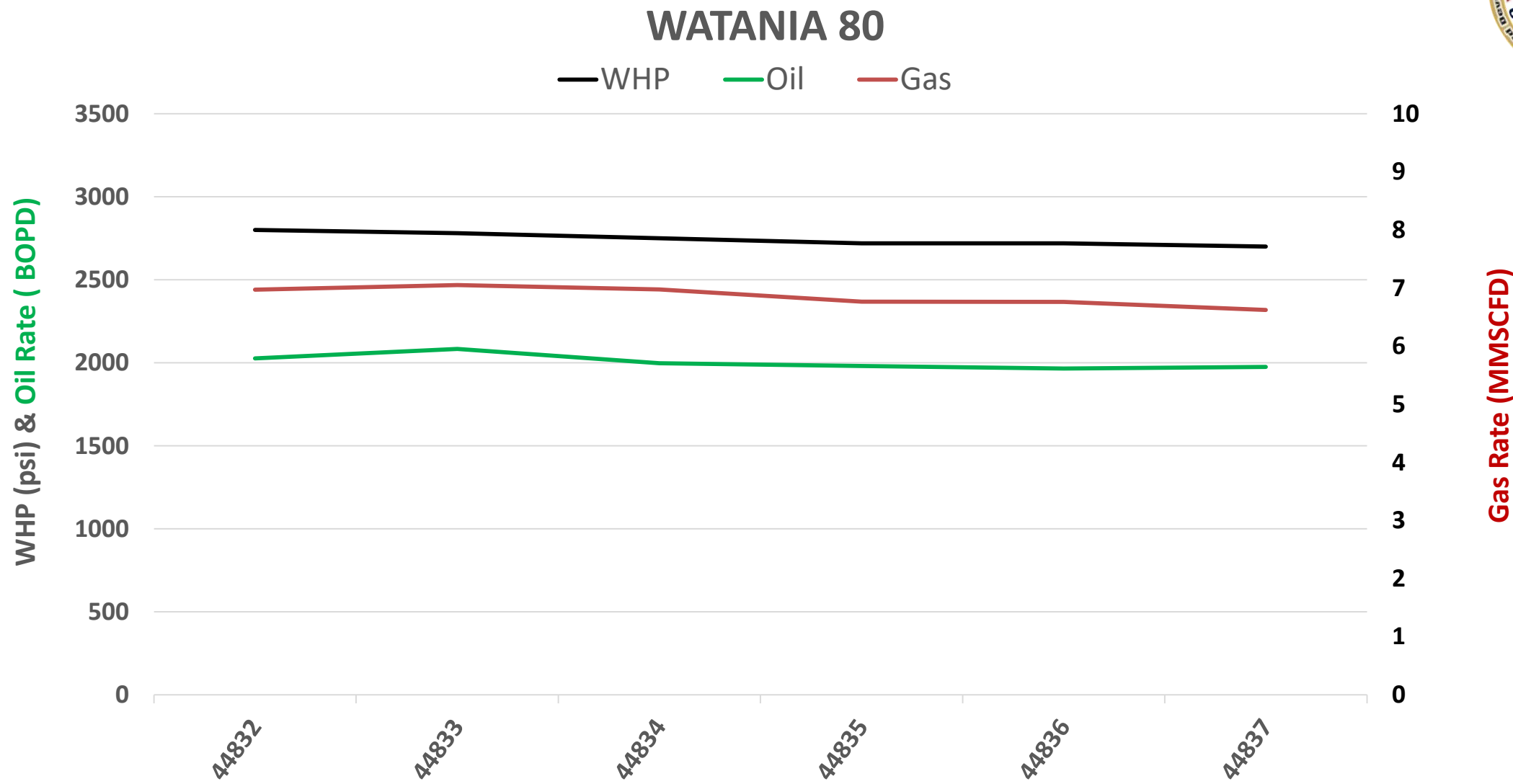
WATANIA-80 (AEB) INITIAL RESULTS



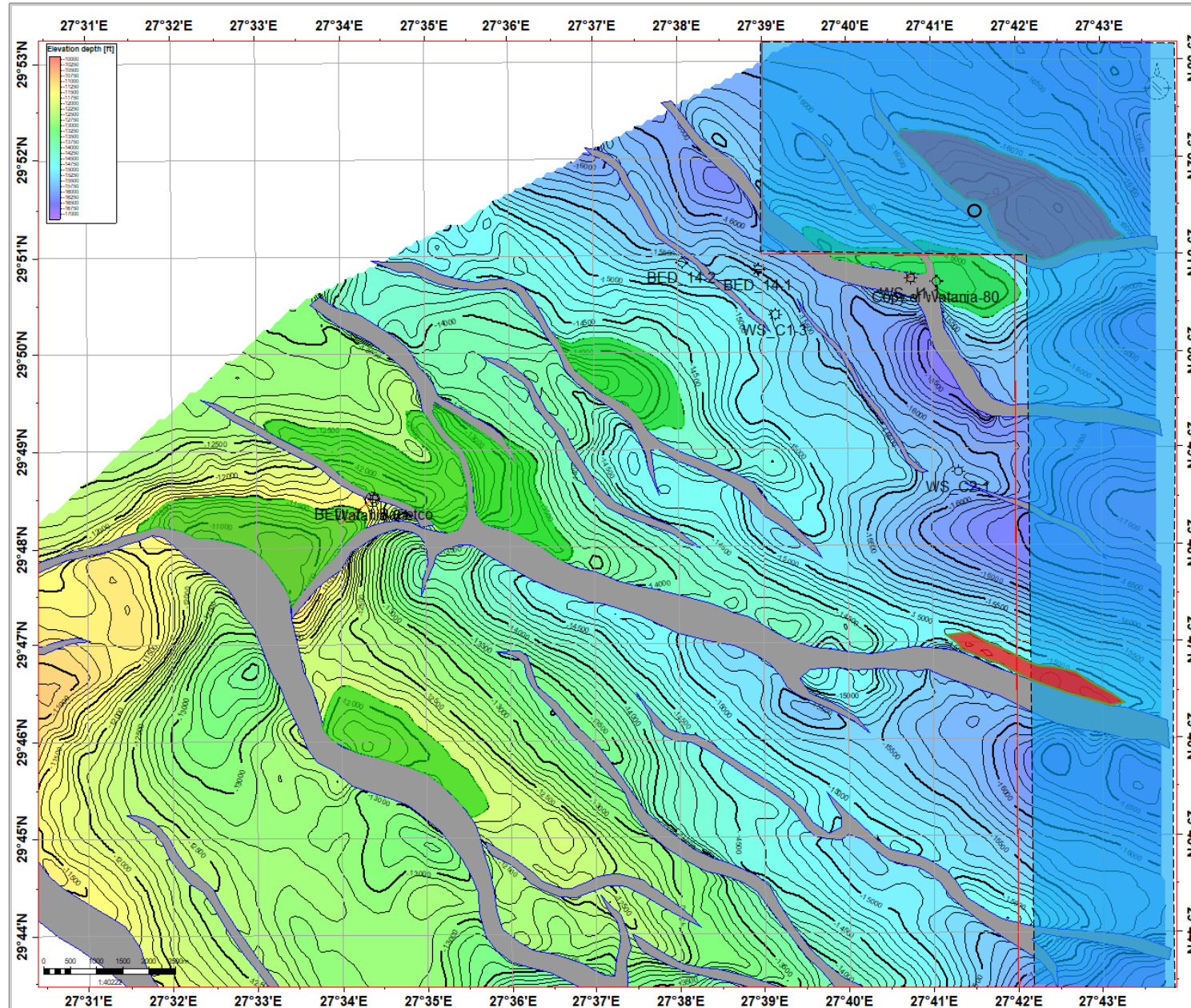
CHOCK	WHP	OIL	GAS	BOE
32/64	3200	1000	2.5 mm	1500
56/64	3000	2300	5 mm	3150
64/64	2500	3700	10 mm	5400
128/64	500	6500	16 mm	9200

- Initial results during cleaning the well for few hours.
- API 46°
- Reservoir pressure 6480 PSI.

WATANIA-80: PRODUCTION PROFILE



AEB W-80 AEB RESERVOIR LEADS



WATANIA-80 SUMMARY



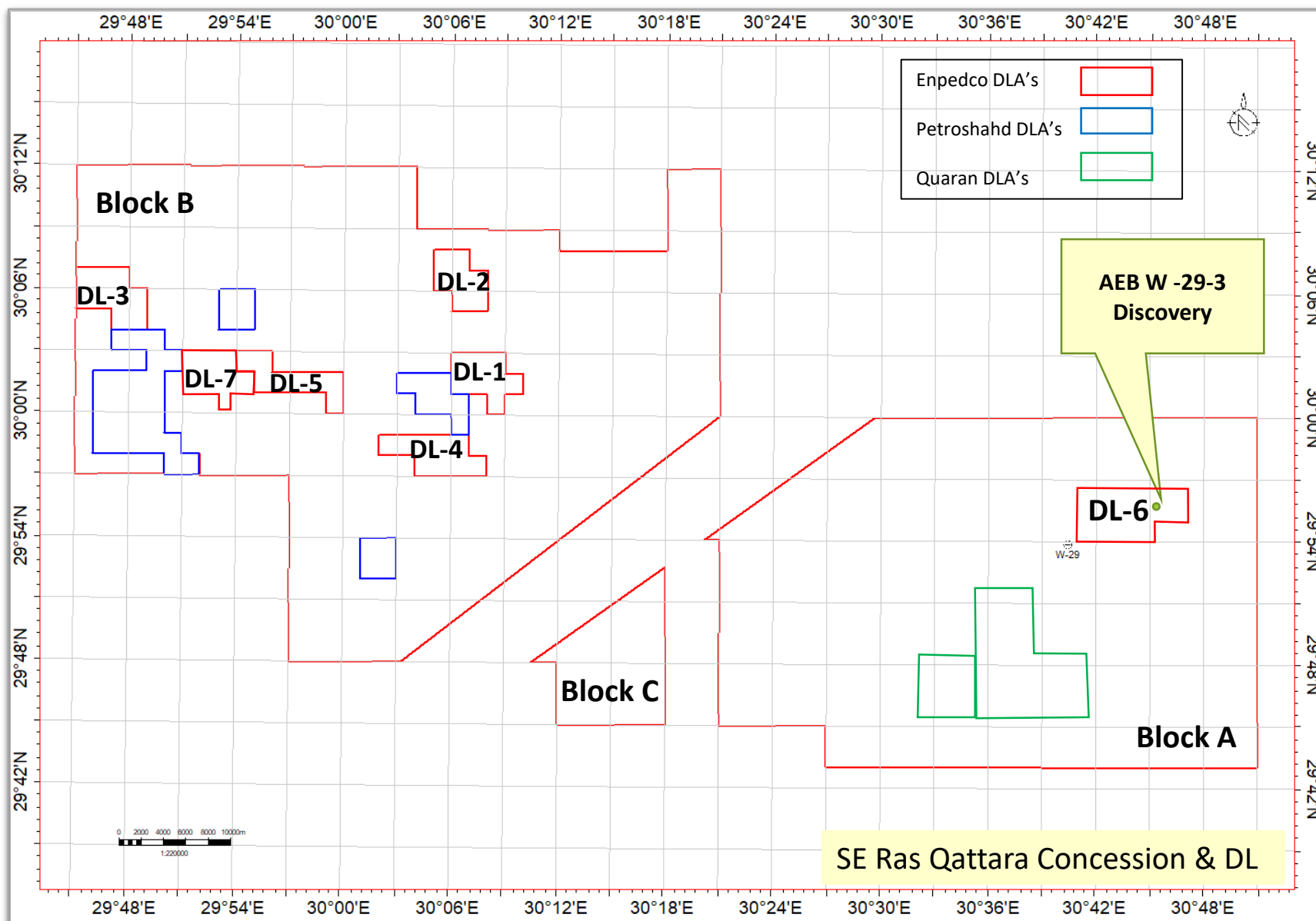
- Watania-80 well drilled and bottomed in Jurassic Lower Safa formation.
- Well cost almost **3.5** MMUS\$ compared to offset well costed around **9** MMUS\$
Well drilled in **38** days (TD) compared to offset well in **99** days (TD).
- Well proven hydrocarbons in two different formations:
 - ✓ Jurassic Upper Safa (Gas condensate)
 - ✓ Bottom AEB (Oil with high 2500 GOR)
- Jurassic is showing communication with WS J1-1, but higher with 50 ft.
- AEB reservoir pay sands are not penetrated in WS J1-1 well and proves virgin pressure.
- Jurassic Upper Safa is not showing any extension outside block boundaries.
- AEB reservoir is showing a very minor extension outside block boundaries ?
- Analogue structures with similar **fault throw (500-1000 feet)** and drags outside concession should be investigated both inside and outside concession boundary.
- **Unlocking AEB in Abu El Gharadig requires :**
 - Good seismic data quality / re-processing for vintage seismic data.
 - Detailed interpretation and well correlations.
 - Unconventional interpretation looking for shales.
 - Advanced fault seal analysis interpretation.



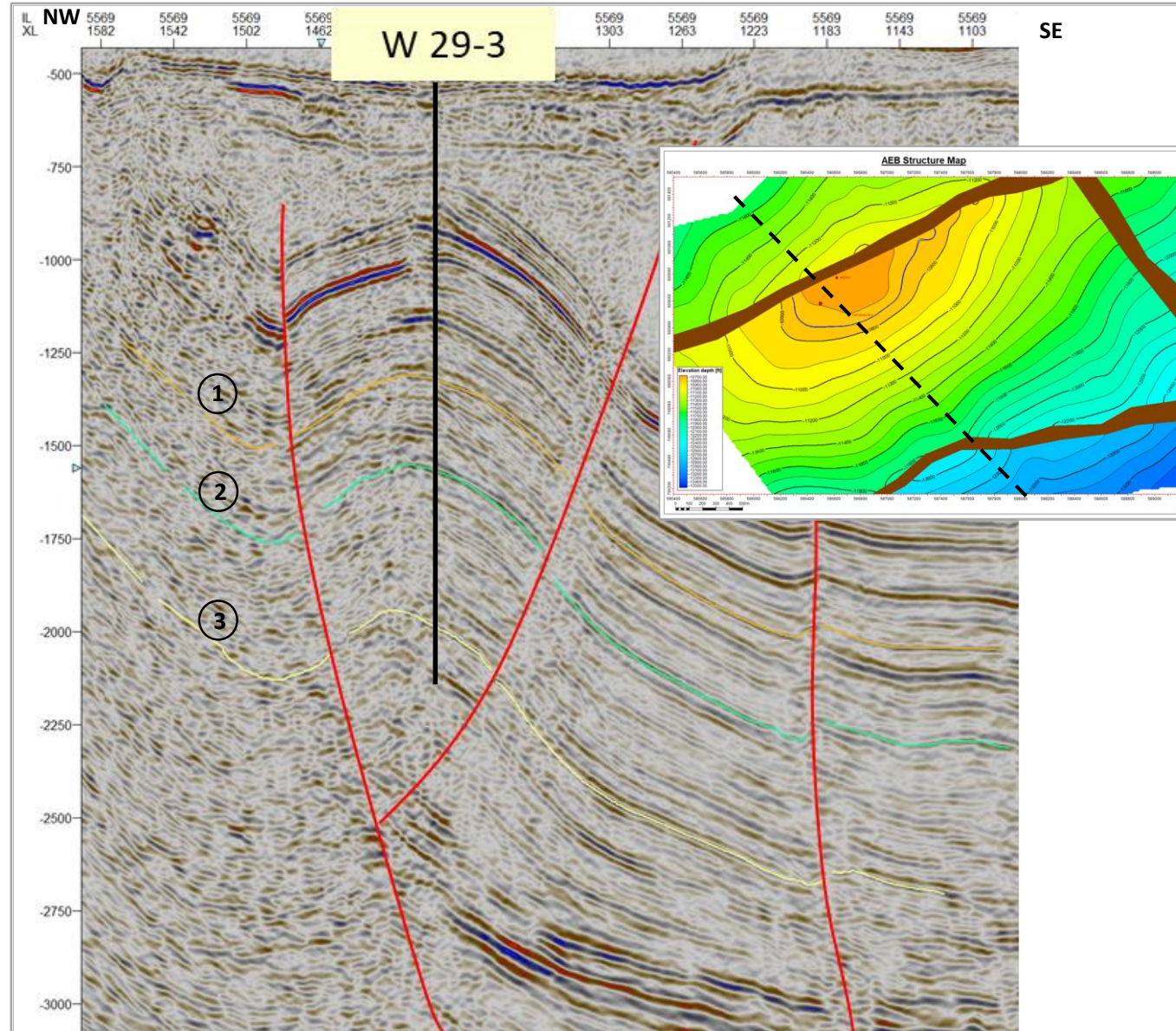
UNLOCKING THE POTENTIAL OF ALAM EL-BUIEB KATTANIYA INVERTED BASIN, WESTERN DESERT EGYPT

09/10/2022

WATANIA-29-3 LOCATION MAP



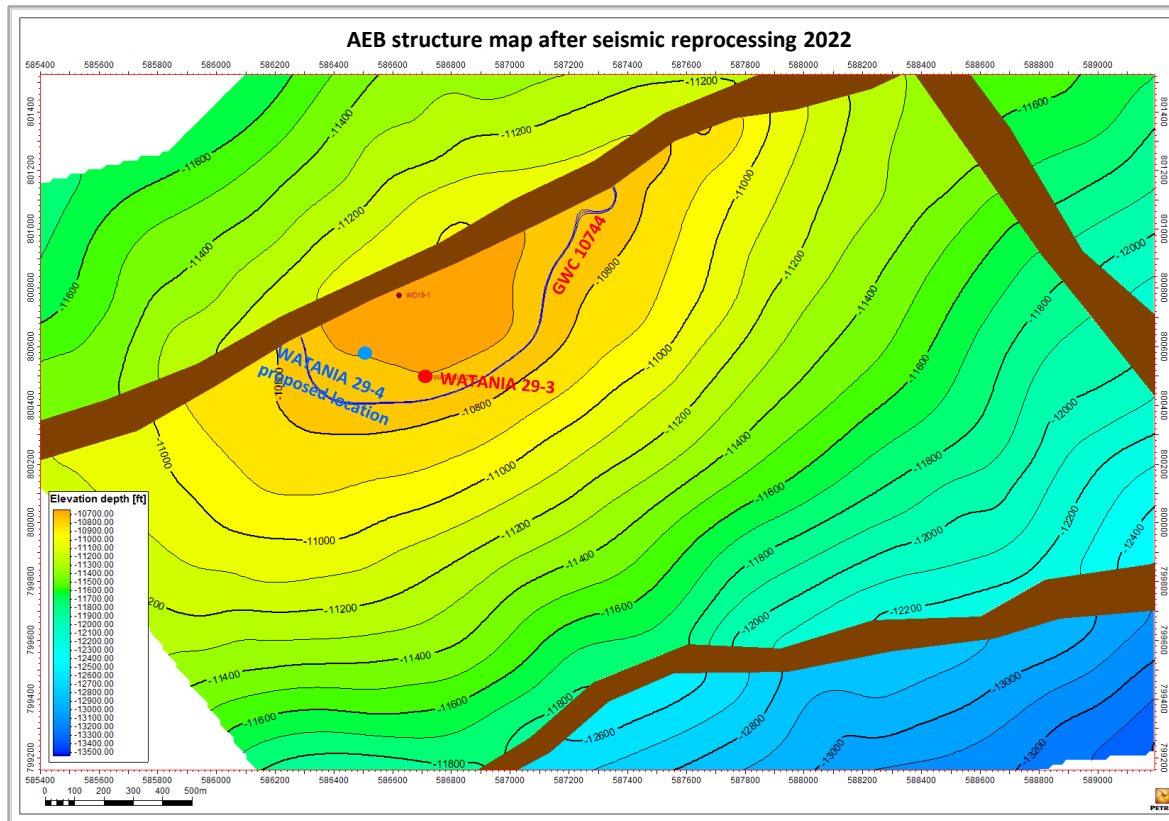
WATANIA-29-3 SEISMIC INLINE (DIP)



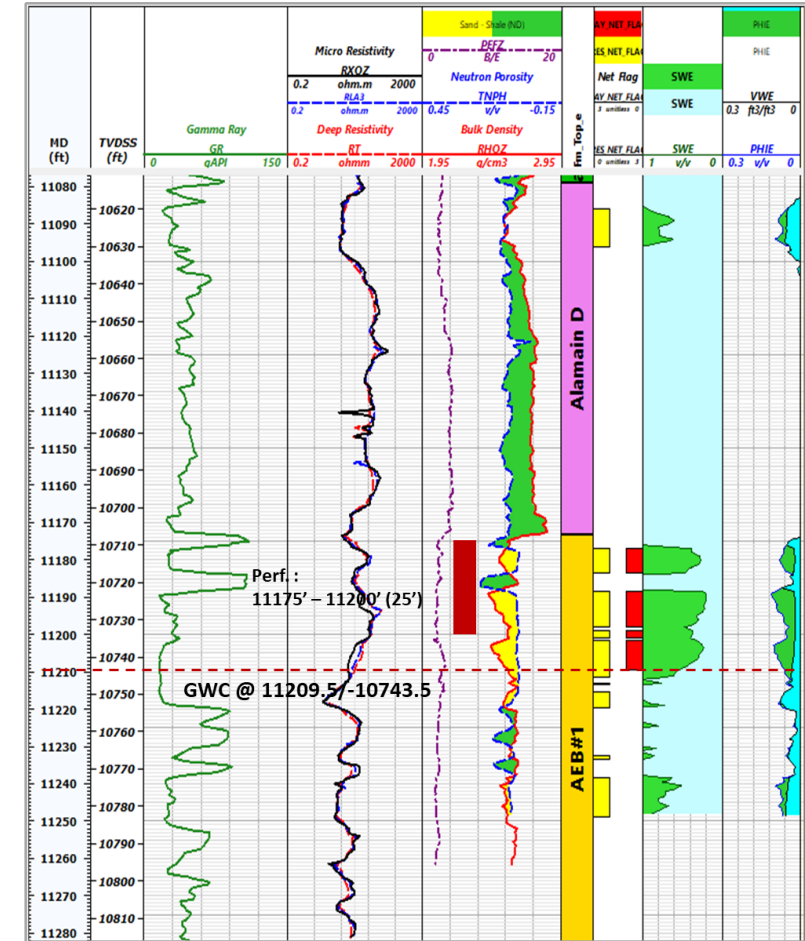
- ① Top ARC
- ② Top Bahariya
- ③ Top AEB

WATANIA-29-3 AEB RESERVOIR

- Watania 29-3 well drilled in October 2021.
- Watania 29-3 well encountered successive oil bearing zones all over the Cretaceous section from Bahariya (Upper & lower) , Kharita down to AEB.
- Watania 29-3 is considered a play opener in the area unlocking gas potential presence in this area.
- Initial testing of AEB formation is 3.26 MMSCF/D with 60 STB/D condensate from 26' sand with average porosity 8 % and initial water saturation 29 % .
- Proposed new well after seismic reprocessing 2022, slightly deviated to achieve multi-stacked targets well.



Watania-29-3 Petrophysical analysis



26 Ft net pay ,
50 Ft perforated,
PHIE = 8% , SW = 29%



THANK YOU