

**BAKER
HUGHES**

MAGNETIC RESONANCE EXPLORER LOG

2D ANALYSIS VS CORE DATA

COMPANY

MGM ENERGY CORP

WELL

MGM SHELL EAST MACKAY 1-78

FIELD

EAST MACKAY

PROVINCE

NORTHWEST TERRITORIES

LOCATION:

UID 3001786450125 30

LAT 64.785 N

LONG 125.722 W

ELEVATIONS:

KB 161.20 M

DF

GL 155.00 M

DATE

19-FEB-2013

ECC CA215446

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD

BIT SIZE	FROM	TO
<u>311.0 MM</u>	<u>0.0 M</u>	<u>401.8 M</u>
<u>222.0 MM</u>	<u>401.8 M</u>	<u>2001.0 M</u>

CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
<u>244.5 MM</u>	<u>59.5 KG/M</u>	<u>NA</u>	<u>0.0 M</u>	<u>401.8 M</u>

REMARKS

TIME STOPPED CIRCULATION: 18-FEB-2013 01:30 PM.

CORRELATED TO BAKER HUGHES WIRELINE 29-JAN-2013.

MREX DATA RECORDED IN POROPERM + LIGHT OIL ACQUISITION MODE.

MUD TYPE WATER BASED GELCHEM 1130 G/L.

T2 CUTOFFS USED CBW: 1.3MS, BVI 3.5 MSEC, HC 3.5MS - 100MS
BASIC PROCESSING IS ALSO DONE WITH CBW 3.5MS AND BVI 33MS.

2D HC SATURATION ANALYSIS:

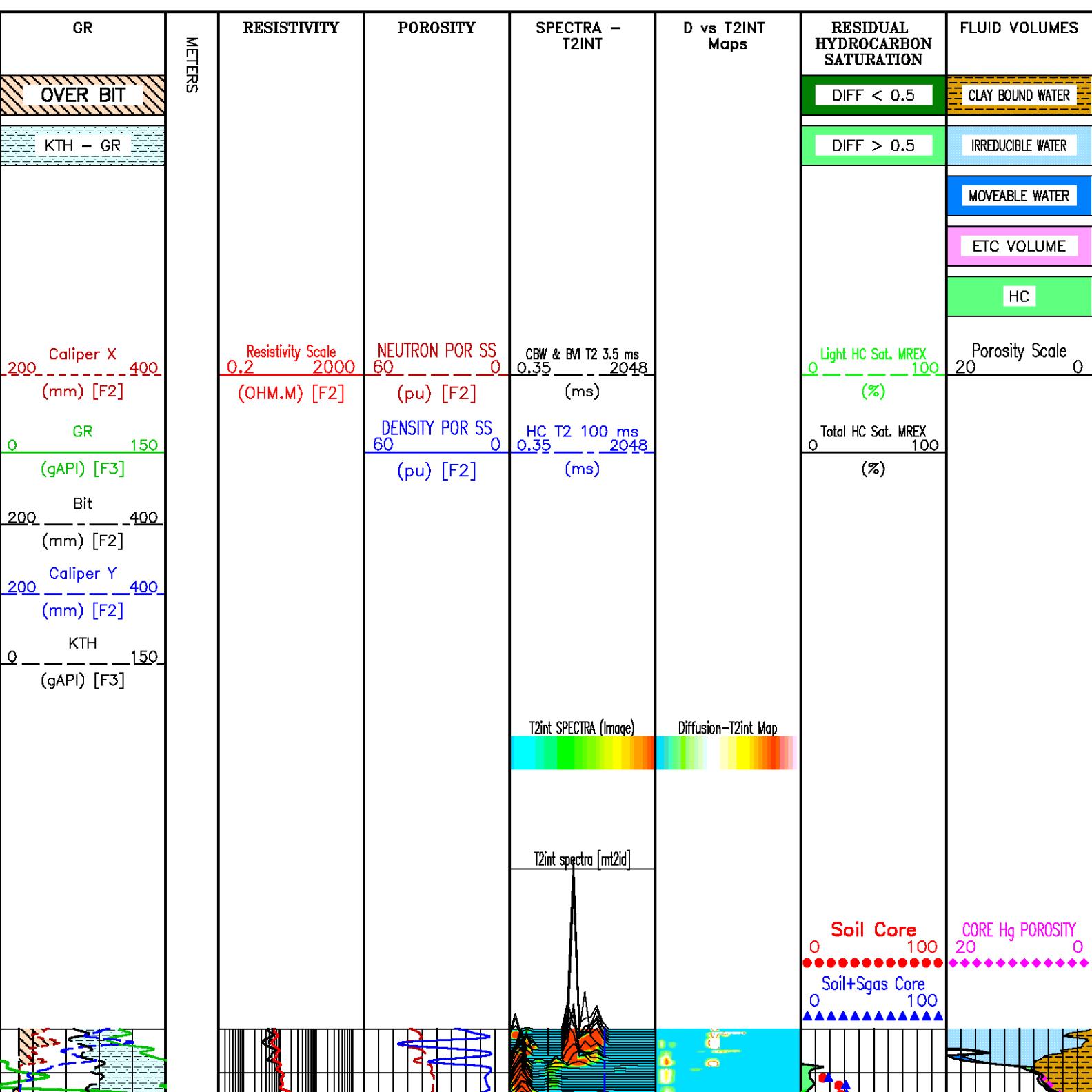
HYDROCARBON IS MARKED BETWEEN T2INTR RANGE 3.5MS - 100MS.
THIS RANGE IS FURTHER SUBDIVIDED INTO DIFFUSIVITY > 0.5 (LIGHT OIL)
AND D < 0.5 (HEAVIER OIL).

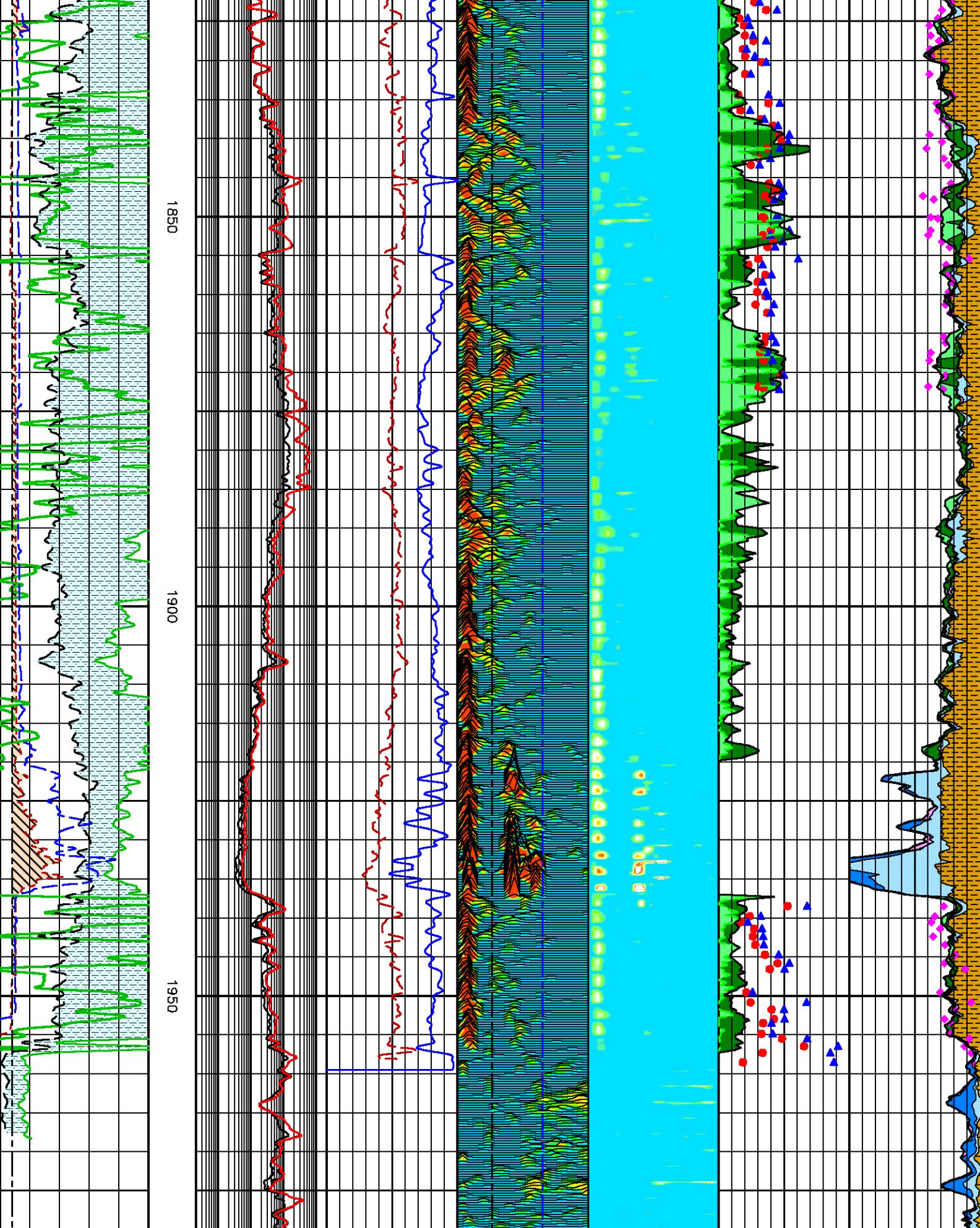
** THE T2 AND DIFFUSIVITY RANGES FOR UNCONVENTIONAL SHALE-OIL IS STILL AN AREA OF RESEARCH. THESE VALUES MAY NEED REVISION AS INTERPRETATION MODELS ARE DEVELOPED.

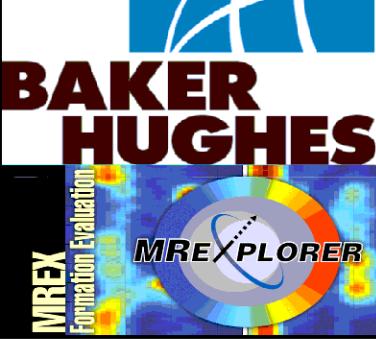
MREX DATA PRESENTED WITH CORE DATA ON THE LOGS.

THE PRESENT MODEL SHOWS A REASONABLE AGREEMENT BETWEEN CORE DATA AND MREX DATA.

MREX 2D SATURATION ANALYSIS VS CORE SATURATION







COMPANY	MGM ENERGY CORP	FILE NO:
WELL	MGM SHELL EAST MACKAY I-78	
FIELD	EAST MACKAY	
PROVINCE	NORTHWEST TERRITORIES	
LOCATION:	ELEVATIONS:	
UID 3001786450125 30	KB 161.20 M	LICENSE
LAT 64.795 N	DF	1202
LONG 125.722 W	GL 155.00 M	
	DATE 19-FEB-2013	