



پژوهش‌نفت

سال بیستم  
شماره ۶۱  
صفحه ۷۶-۶۷، ۱۳۸۹

\*

maryam.taghavi84@gmail.com

چکیده

( / )

:

RMS

$$NZ=32 \cdot NY=23 \cdot NX=50$$

[ ]

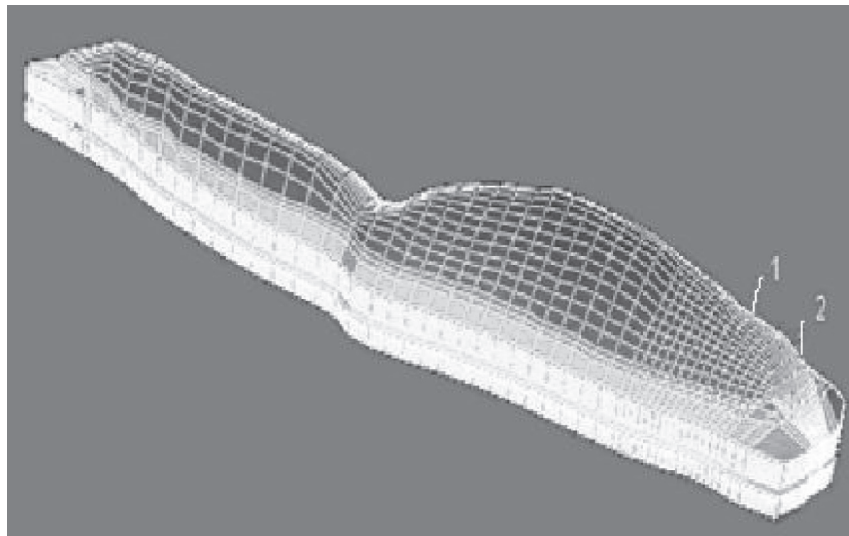
[ ]

( )

( )

[ ]

RMS



- 1 .Cantarell
- 2 .Zama (Alberta)

(rb/STB)	(%)	(%)		
/	/	/	/	
/	/	/	/	
/	/	/	/	
/	/	/	/	
/	/	/	/	

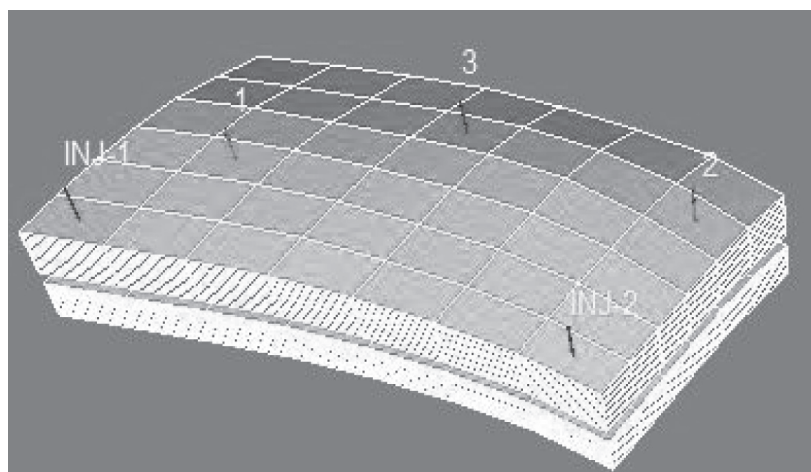
(rb/STB)	(%)	(%)		
/	/	/	/	
/	/	/	/	
/	/	/	/	
/	/	/	/	
/	/	/	/	

(md)	(%)			
	/		-	
	/		-	
	/		-	
	/		-	
	/		-	
	/		-	

1. Net To Gross
2. Water Saturation
3. Porosity
4. Oil Flormation Valume Factor
5. Permeability (Mili Darcy)

Eclipse

. :  
 -  
 DL -  
 CCE -  
 -  
 -  
 -  
 /  
 / z  
 . [ ]  
 X ) /  
 (z Y /  
 /  
 /  
 Y X  
 . ( ) z / /  
 /  
 /  
 /



- |                                   |                   |
|-----------------------------------|-------------------|
| 1. PVTi Model                     | 6. Dual Porosity  |
| 2. Bubble Point Pressure          | 7. Fully Implicit |
| 3. Differential Libration         | 8. Corner Point   |
| 4. Constant Composition Expansion | 9. Sigma          |
| 5. Separator Test                 | 10. Sector        |

/	(%)
/	(MMm <sup>3</sup> )
	(MMm <sup>3</sup> )

/	(m <sup>3</sup> /D)
/	(%)
/	(atm)

[ - ]

/	(%)
/	(MMm <sup>3</sup> )
	(MMm <sup>3</sup> )

/	(%)
/	*(MMm <sup>3</sup> )
	(MMm <sup>3</sup> )

= MM\*

1. Oil Production (Cubic Meter /Day)
2. Maximum Water Cut
3. Recovery Factor .
4. Field Oil Production Total
5. Field Gas Production Rate

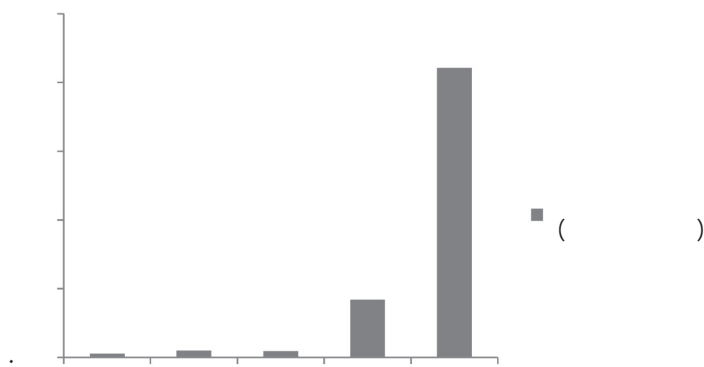
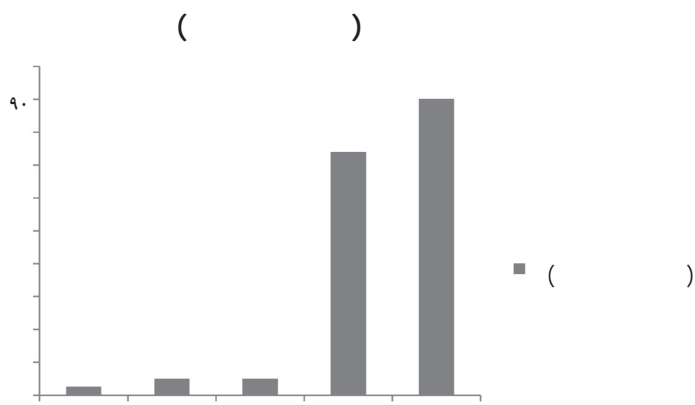
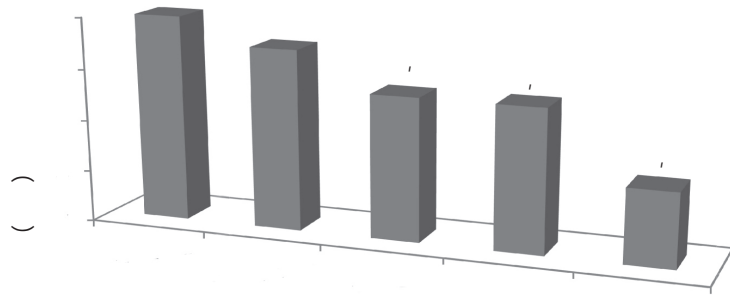
/

[ ]

	(%)
/	(MMm <sup>3</sup> )
	(MMm <sup>3</sup> )

	(%)
/	(MMm <sup>3</sup> )
	(MMm <sup>3</sup> )

1. Gravity Drainage
2. Cryogenic Air Separation



(NPV)

)

(

/

/

=

$$NPV = \sum_{i=1}^N Pi - I$$

( )

( )

: NPV

i ) i

: Pi

( i

: I

( )

: N

:

Pi

$$Pi = Fi / (1+K)^{ni}$$

( )

:

i

: Fi

: K

i

(

)

: n

:

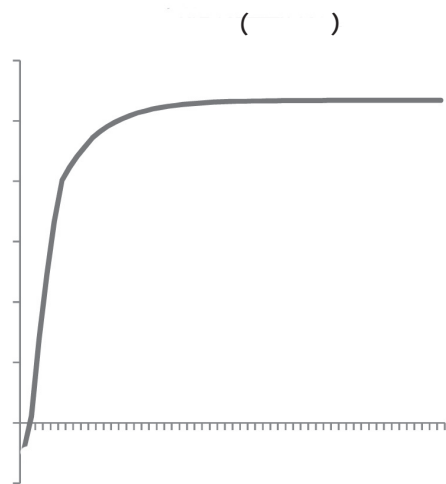
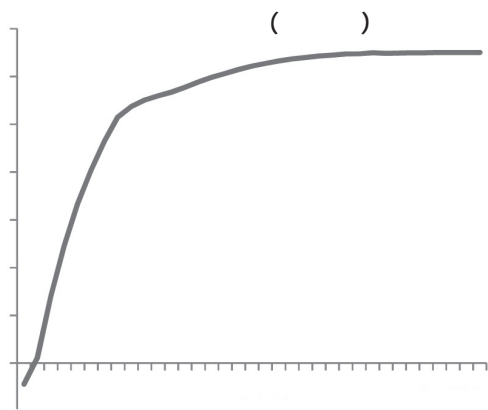
$$NPV = (\sum_{i=1}^N \frac{Fi}{(1+K)^{ni}} - I)$$

( )



/	
/	

%	
/	
/	
/	
/	



- [1] Rodriguez F., Sanchez J.L. & Nava G., "Mechanisms and main parameters affecting nitrogen distribution in the gas cap of the supergiant akal reservoir in the cantarell complex", SPE 90288, 2004.
- [2] Smith A.S. et al, "Geomechanical testing and modeling of reservoir and cap rock integrity in an acid gas EOR/sequestration project", Zama, Alberta, Canada, ScienceDirect, Vol. 1, pp. 2169-2176, 2009.
- [4] Kazemi H., *Naturally fractured reservoirs*, Lecture, Third International Forum on Reservoir Simulation, Baden, Austria, 53P, 1990.
- [5] Arevalo V. & F. Samaniego V., Pemex and UNAM; F.F. Lopez C. and E. Urquica S., "IMP, On the Exploitation Conditions of the Akal Reservoir Considering Gas Cap Nitrogen Injection", SPE 35319, 1996.
- [6] Rodriguez F., Sanchez J.L. & Nava G., "Mechanisms and main parameters affecting nitrogen distribution in the gas cap of the supergiant akal reservoir in the cantarell complex", SPE 90288, 2004.
- [7] Sepehrnoori K. & Vicencio O.A., "Simulation of nitrogen into naturally fractured reservoirs based on uncertain properties and proper matrix grid resolution", SPE 104038, 2006.
- [8] Sepehrnoori K. & Vicencio O.A., "Simulation of nitro. gen injection into naturally fractured reservoirs", SPE 92110, 2004.
- [9] Sanchez J.L. & Rodriguez F., "Nitrogen injection in the cantarell complex: results after four years of oeration", SPE 97385, 2005.