Scan Code: 04

Reviewer **bh** Permit # **06SOKP1P9108**
Date 9/30/08 Company **Taylor International, Inc.**
Well # **Marco #4**
Location: **NE** /4; Sec **18**, T **19**N, R**06** E; **610'** F **S** L **840'** F **E** L

TECHNICAL REVIEW

Type of Injection Well: SWD/Conversion/Active

Injection: Continuous

Approximate # Days operating/year **365**
Rate (B/M): Average _ Maximum **3000**
Wellhead Pressure (psi): Average _ Maximum
Fluid: TDS _ SP.GR. _ Analysis Included: [Yes/No]
Source (Formation Name): **Skinner**

Geologic Data (All references to depths are below land surface)

Base of Historical Usable Water:
Base of USDW and How Determined: **400'-well Ceasar #4, OK0163, NE/4, 18-19N-06E**
Injection Interval: Top **2756'-2800'**
Effective Thickness **49'**
Formation Name **Oswego** Lithology
Porosity (%) **6.8** Initial Reservoir Pressure _ Date
Permeability (md) **2.7**
Confining Zones: Thickness between injection zone & USDW **2356'**
Lithology
Cumulative Shale _ Thickest Shale Zone _ (Interval)

Well Data: (All references to depths are below land surface)

Surface Elevation GL **862'** Total Depth **3482'**
Date Drilled or to be Drilled **2/16/82** Plugged Back Depth **2900**
Date Converted
Type Logs Available (this well/offset well): (By reference/included)

Test Data (By reference/included)

Construction:	Size (In.)	Depth Interval	Sacks of Cement	Hole Size	Cement Interval	How Determined
Surface Csg.	**8 5/8"**	**0-530'**	**400**	**12 1/4"**	**0-530'**	**Calculated**
Intermediate Csg.	_	_ _	_ _			
Long String Csg.	**4 1/2"**	**0-3480'**	**300** _	**7 7/8"**	**3480'-1926'**	**Calculated**
Liner Csg.						
Tubing					Packer type & depth **Tension – 2706'**	

Type Cement =	ft^3/ Sx.	X	# of Sx.	Total ft^3 of Cement	X	Lin ft / ft^3 from tables	=	Lin. ft. of Cement
	1.18		**400**	**472**		**2.4229**		**1143'**
	1.18		**300**	**354**		**4.3899**		**1554'**

Area of Review (AOR) (1/4 mile - Osage; 2 mile - O.I.L.)

Map Submitted: Yes Tabulation of Wells Submitted: Yes
Faults Located: None Present
Number of Wells in AOR: Abandoned **4** Production **5** SWD_ EOR **0**
Number of Wells in Zone of Endangering Influence
Number of Wells Requiring Corrective Action: SWD _ EOR

Well	Well Type	Problem	Corrective Action Required
_	_	_	

Maximum Injection Pressure Calculation: Pm=(Frac Gradient - (.433 X SP.GR.)) X Depth
Pm = (.75 - (.433 X _)) X _ = _ (Psi) **(Used 400 psig.)**

Well **Passes** Technical Review
Date **9/30/08** Reviewer **BH**