

## Volumetric Calculation

Targa Midstream Services, LP

Monument AGI #1

30-025-40002

S36 T19S R36E

### Sensitivity Case 2

CALCULATION ASSUMES RADIAL FLOW & HOMOGENEOUS INJECTION ZONE

Injection Volume	6400	bpd	(from applicant 5000 bwpd + 3.38 mmcfd)
Days	365	days	
Years	30	years	
Cumulative Injection Volume	70,080,000	bbls	(bpd x days x years)
Cumulative Injection Volume	393,471,168	cu ft	(5.6146 cu ft/bbl)
Reservoir Porosity Thickness	50	ft	sensitivity case
Average Reservoir Porosity	0.15		sensitivity case
Reservoir Porosity Feet	7.5	poro-ft	(thick x poro)
Cumulative Injection Plume Area (sq-ft)	52,462,822	sq ft	(cu ft/poro-ft)
Cumulative Injection Plume Area (ac)	1204	ac	(sq ft/43560 sqft/ac)
Cumulative Injection Plume Radius (ft)	4088	ft	(sq rt(sq ft/3.14))

### with 100% Safety Factor

Cumulative Injection Plume Area (sq-ft)	104,925,645	sq ft	(2 x cu ft/poro-ft)
Cumulative Injection Plume Area (ac)	2409	ac	(sq ft/43560 sqft/ac)
Cumulative Injection Plume Radius (ft)	5781	ft	(sq rt(sq ft/3.14))

3.38 mmcfd estimated at equivalent 1400 bpd

Prepared By

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9/15/2011

Oil Conservation Commission

Case No. \_\_\_\_\_

Exhibit No. 3

*Monument*