



**FW: requesting a meeting**  
**Whitney McDonald** to: Ramona Hedges  
Cc: John McKenzie

10/12/2015 05:18 PM

Ramona,

Please post this as additional correspondence for this item .

Thanks!

Whitney

Sent with Good (www.good.com)

----- Forwarded by Whitney McDonald/Counsel/COSLO on 10/12/2015 05:18:56 PM-----

----- Original Message -----

From : kentopping@aol.com  
To : natalie.beller@gmail.com  
Cc : wmcDonald@co.slo.ca.us  
Sent on : 10/12 05:11:09 PM PDT  
Subject : Re: requesting a meeting

Hi Natalie,

I try to make myself available for citizen requests such as yours.

I could possibly meet with you late morning on Tuesday, Oct. 20 at a mutually convenient location (I am in Cambria). Let me know if this might work and we can go from there .

Best wishes,

Ken Topping

-----Original Message-----

From: Natalie Beller <natalie.beller@gmail.com>  
To: kentopping <kentopping@aol.com>  
Sent: Fri, Oct 9, 2015 2:00 pm  
Subject: requesting a meeting

Hi Commissioner Topping,

On behalf of interested residents in the Price Canyon/Oak Park neighborhoods, I am requesting a meeting with you before October 22.

I would like to discuss the Price Canyon oil field expansion extension with you. I want to better understand your goals for the county, be heard on mine and my neighbors' goals, and explore working together on this issue.

I am requesting 30 minutes for this meeting.

Thank you and have a great weekend,  
Natalie Beller  
[\(805\) 458-0220](tel:(805)458-0220)



Freeport-McMoRan Oil & Gas  
201 S. Broadway  
Orcutt, CA 93455

Telephone: 805-739-9111

October 14, 2015

Mr. James Bergman  
Director, Department of Planning and Building  
San Luis Obispo County  
Attn: Planning Commission Secretary  
976 Osos Street, Room 200  
San Luis Obispo, CA 93408

Re: Extension of time limit for Conditional Use Permit (CUP) #D010386D

Dear Mr. Bergman:

Freeport-McMoRan Oil & Gas (FM O&G), has pending before the Planning Commission an application to extend by three years the term of CUP D010386D. A three year extension is necessary to allow FM O&G to complete the Phase 4 development program that was previously approved. Completion of the development program was delayed due to unexpected specific regulatory program updates the US Environmental Protection Agency (USEPA) requested the California Division of Oil, Gas, and Geothermal Resources (DOGGR) undertake related to the Underground Injection Control Program (UIC). The activity contemplated as part of this application was fully analyzed as part of the original Phase 4 EIR and would be conducted in accordance with the mitigation conditions originally approved by the county. There are no new or increased impacts associated with this extension request.

Over the past 10 years FM O&G has maintained a strong track record of compliance with the 43 different conditions contained in the Conditions of Approval for this CUP. The County Compliance Monitor for Phase 3 and Phase 4, Firma Consultants, has been monitoring CUP compliance at the Arroyo Grande Oil Field for 20 years. At the request of county Planning staff, Firma has gradually increased the number of hours spent monitoring FM O&Gs CUP related compliance. Over the last 32 months a total of 2,875 monitoring hours have been logged equating to approximately 20 hours per week, with 10 to 14 of those hours each week consisting of direct field monitoring activities. In the last 10 years and approximately 889 site visits Firma has noted two incidents of noncompliance, both of which were fully corrected and mitigated to the fullest extent possible. One of these issues involved some minor oak tree trimming, and the other was an administrative issue involving the stockpiling of soil. Follow-up evaluations by Firma identified practices that were implemented to avoid similar issues in the future.

In addition to the CUP conditions, FM O&Gs operations are also subject to multiple other regulatory regimes. The San Luis Obispo County Air Pollution Control District (APCD)

Mr. Bergman  
October 14, 2015  
Page 2 of 2

conducts its own inspection and monitoring program for dust, hydrogen sulfide (H<sub>2</sub>S), and other fugitive emissions at the Arroyo Grande Oil Field. Since adoption of the CUP, operations at the Arroyo Grande Oil Field have been the subject of 146 site inspections conducted by the APCD with only one minor notice of violation issued. This involved a lack of proper notification regarding asbestos removal in a building demolition. All appropriate safety controls were in place.

The California Department of Forestry and Fire Protection, also known as Cal Fire, operating under contract with San Luis Obispo County as the County Fire Department, also conducts regular inspections of the Arroyo Grande Oil Field. These inspections cover compliance with the California Fire Code, vegetation management, emergency response planning, and hazardous materials management. There have been no violations related to these matters of any practice or procedure associated with the Conditions of Approval in the 10 years since the CUP was first approved.

According to county records, the Arroyo Grande Oil Field is the third largest source of property tax revenue in San Luis Obispo County. Completion of the Phase 4 development program as originally designed and approved is essential to facilitating the efficient development of the Arroyo Grande Oil Field at a measured pace and to allow FM O&G to maintain and grow production levels.

FM O&G respectfully requests the Commission's approval of the application to extend the term of CUP D010386D by three years.

Sincerely,



David Rose  
Manager  
Environmental, Health & Safety

cc: The Honorable Adam Hill, Supervisor District 3  
The Honorable Lynn Compton, Supervisor District 4  
Mr. John McKenzie, Senior Planner, SLO County Planning & Building  
Department



ATTENTION: HEARING OCT 22 AGENDA ITEM- FREEPORT-  
MCMORAN OIL & GAS

Jeanne Reeves

to:

RHedges@co.slo.ca.us, Planning@co.slo.ca.us

10/19/2015 04:06 PM

Hide Details

From: Jeanne Reeves <jeanreeves2003@yahoo.com>

To: "RHedges@co.slo.ca.us" <RHedges@co.slo.ca.us>,  
"Planning@co.slo.ca.us" <Planning@co.slo.ca.us>

Please respond to Jeanne Reeves <jeanreeves2003@yahoo.com>

Security:

To ensure privacy, images from remote sites were prevented from  
downloading. Show Images

1 Attachment



Dear Planning Commissioners,

Timeline of Events at Arroyo Grande Oil Field 10-12-15-3.pdf

Please deny the request by FREEPORT-MCMORAN OIL & GAS for a Conditional Use Permit to amend the previous CUP to extend the amount of time allowed to drill previously approved Phase IV oil wells (D010386D).

The previously verified FEIR (dated September 23, 2004) is not adequate for purposes of compliance with CEQA because;

1. Substantial changes have occurred with respect to the circumstance under which the project is undertaken which will require major revision of the previously certified FEIR, and new information of substantial importance has been identified which was not know at the time that the previous FEIR was certified. **Some** of the changes are the following;

a. The Safe Drinking Water Act (SDWA) establishes requirements and provisions for the Underground Injection Control Program which DOGGR has failed to implement.

Therefore the oil project in the Arroyo Grande Oil field in in violation of the Save Drinking Water Act and should not be expanded even with 31 more wells in phase IV.

[http://www3.epa.gov/region09/mediacenter/uic-review/#\\_ga=1.206555600.23479502.1445289663](http://www3.epa.gov/region09/mediacenter/uic-review/#_ga=1.206555600.23479502.1445289663)

<http://www.cleanwateraction.org/page/underground-injection-enhanced-oil-recovery-and-disposal-injection>

b. New information on Waste Water Injection induced earthquakes. **We have a Nuclear Power Plant in this County. Please think about the risks we are taking by approving an increase in water intensive Enhance Oil Recovery wells.**

**Earthquakes induced by fluid-injection activities are not always located close to the point of injection.**

<http://www.usgs.gov/faq/node/3419>

**Is it possible to anticipate whether a planned wastewater disposal activity will trigger earthquakes that are large enough to be of concern? Answer: NO**

<http://www.usgs.gov/faq/categories/9833/3417>

**How does the injection of wastewater at depth cause earthquakes?**

<http://www.usgs.gov/faq/categories/9833/3426>

#### **Myths and Misconceptions**

<http://earthquake.usgs.gov/research/induced/myths.php>

Fact 5: Induced seismicity can occur at significant distances from injection wells and at different depths. **Seismicity can be induced at distances of 10 miles or more away from the injection point and at significantly greater depths than the injection point.**

Fact 6: Wells not requiring surface pressure to inject wastewater can still induce earthquakes. Wells where you can pour fluid down the well without added pressure at the wellhead still increase the fluid pressure within the formation and thus can induce earthquakes.

New Insight on Ground Shaking from Man-Made Earthquakes

<http://www.usgs.gov/faq/categories/9833/3425>

c. There was not a mandatory emergency drought in effect 11 years ago. **Cyclic Steam Injection and Steam Flooding is a water intensive Enhanced Oil Recovery technique.** The view point that Freeport is producing the water is not relevant in light of it is still using massive amounts of water from the aquifer. Currently approximately 430

million gallons a year, and over 1million gallons a day, when doing the math from Water Board timeline of events presentation at Sept. 21, 2015 hearing & aquifer exemption application. See attachment below.

d. The 2004 FEIR does not address Subsidence.

[California's sinking terrain is costly – just ask San Luis Obispo](#)



### California's sinking terrain is costly – just ask San Lu...

Not too long ago in that idyllic Central Coast city, an overdependence on groundwater became a destructive and expensive problem that today could serve as a warning...

View on [www.revealnews.org](http://www.revealnews.org)

Preview by Yahoo

e. Worsening of Climate Change in last 11 years. Effect of climate change in "**Southwest**. Increased heat, drought, and insect outbreaks, all linked to climate change, have increased wildfires. Declining water supplies, reduced agricultural yields, health impacts in cities due to heat, and flooding and erosion in coastal areas are additional concerns".

<http://climate.nasa.gov/effects>

Scientists agree that climate change is real and "On Earth, human activities are changing the natural greenhouse".

<http://climate.nasa.gov/scientific-consensus/>

it is extremely likely that human activities have been the dominant cause of that warming." [Causes of Climate Change | Climate Change | US EPA](#)



### Causes of Climate Change | Climate Change | US EPA

On This Page Earth's temperature is a balancing act. The Greenhouse Effect causes the atmosphere to retain heat. Changes in the sun's energy affect how much energy r...

View on [www3.epa.gov](http://www3.epa.gov)

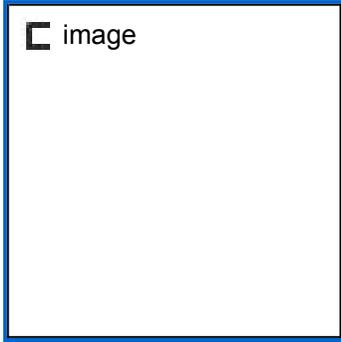
Preview by Yahoo

2. Substantial changes are proposed in the project in that it is expanding. 450 new wells in phase V, which will double production, will require a new EIR. The applicant has requested to postpone the draft EIR until the completion of the State Aquifer Exemption process per SLO Planning Department ongoing status report. **This may take a while in light of DOGGR is in litigation.**

[Lawsuit Seeks to Halt Illegal Dumping of Toxic Oil Waste Into California's Imperiled Water Supplies](#)

### Lawsuit Seeks to Halt Illegal Dumping of Toxic Oil Waste...

A lawsuit filed today by environmental organizations seeks to halt illegal oil industry operations that are



dumping millions of gallons of toxic oil waste a day  
int...

View on [earthjustice.org](http://earthjustice.org)

Preview by Yahoo



Department of Conservation  
Division of Oil, Gas, and Geothermal Resources



October 15, 2015

Mr. Michael Montgomery  
United States Environmental Protection Agency – Region IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Dear Mr. Montgomery:

As part of the approved plan to address the compliance issues related to the State's program to regulate Class II injection, the Division of Oil, Gas, and Geothermal Resources (DOGGR) and the State Water Resources Control Board (State Water Board) have completed their review of the Category 1 wells. Category 1 wells are those Class II water disposal wells that were permitted for injection into non-exempt, non-hydrocarbon-bearing aquifers or the 11 aquifers historically treated as exempt.

The State's analysis initially determined that 176 wells were permitted to inject into non-hydrocarbon-bearing aquifers with a concentration of total dissolved solids (TDS) of less than 3,000 mg/l (Attachment A) that are either not exempt or are one of the 11 aquifers historically treated as exempt. Of these 176 wells, 83 were permitted to inject into one of the 11 aquifers historically treated as exempt. However, several of these wells are also injecting into zones not considered historically treated as exempt, and as such, are subject to shut in by October 15, 2015. The State has determined that there are 33 wells (Attachment B) that will no longer be allowed to inject after October 15, 2015, unless the state applies for and receives an aquifer exemption from US EPA.

The remaining wells on the list of 176 wells described above will not be required to cease injection by October 15, 2015 for one of the following reasons:

- Upon review, the well is properly categorized as a Category 3, not Category 1 well;
- The operator has relinquished approval to inject;
- The well was converted to an oil and gas production well;
- The well was plugged and abandoned;
- DOGGR has already issued an order to cease injection;
- Upon review, the State has determined that the injected fluid is going into an exempt zone.

In order to determine which of these explanations apply to a specific well, please refer to Attachment A.

In addition to the list of 176 wells that were identified as Category 1 wells, two wells were originally identified as having a TDS above 3,000 mg/l, but have now been determined to have a TDS less than 3,000 mg/l. As such, they will also be required to cease injection by October 15, 2015. These wells are listed on Attachment C. We have been in communication with the operators of these wells to ensure that injection ceases in accordance with the deadline and regulations.

We are committed to continuing to meet the agreed upon schedule to bringing the Underground Injection Control (UIC) program into compliance with the Safe Drinking Water Act, and we are also committed to revising the State's UIC program with public safety as the first priority. Please let us know if you have any questions regarding the data attached with this letter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Steve Bohlen".

Steve Bohlen  
State Oil and Gas Supervisor  
Division of Oil, Gas, and Geothermal Resources

Sincerely,

A handwritten signature in blue ink, appearing to read "Jonathan Bishop".

Jonathan Bishop  
Chief Deputy Director  
State Water Resources Control Board

Attachments

cc: Cliff Rechtschaffen, Senior Advisor, Governor's Office  
John Laird, Secretary, California Natural Resources Agency  
Matthew Rodriguez, Secretary, California Environmental Protection Agency  
David Bunn, Director, California Department of Conservation

District Number	FieldName	AreaName	OperatorName	APINumber	LeaseName	WellNumber	Zone TDS Data	Elevation	Top Perf	InjectionZone	Current Status (Oct. 13, 2015 Update)	Permitted into 11 Historically Exempt Aquifers?	Identified as Potentially Impacting Water Supply Wells (PIWSW)	Identified as one of the 53 (Page 2 and Attachment I, 5/15/2015 letter)	Action required by DOGR (Enclosure D, part 1, b, i)	Action required by Water Board (Enclosure D, part 1, b, i and ii)	DOGGR Action taken 1) Issued Cease Injection Order, 2) Operator voluntarily relinquished permit, 3) Provide rationale (see Current Status), or 4) No action necessary	Additional Comments
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920419	Signal E.T.S.	135	1820	410	780	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920426	Signal E.T.S.	140	1820	420	705	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920436	Signal E.T.S.	161	1820	359	540	Dollie Zone	WD (idle) Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920498	Signal E.T.S.	169	1820	427	500	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920639	Hyla	17H	1820	175	930	Dollie Zone	No longer WD, converted to OG (October 2014)		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920659	Hyla	19H-1	1820	210	970	Dollie Zone	No longer WD, converted to OG (October 2013)		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920773	Pulas	2	1820	461	1750	Dollie Zone	No longer WD, converted to OG (November 2013)				no	YES	3 - evaluating AE package	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07920794	Pulas	3	1820	423	1349	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07921105	Pulas	4	1820	389	734	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07921154	Pulas	6	1820	408.29	596	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	4	Issued Information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07921202	Pulas	7	1820	369	550	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	3 - evaluating AE package	Issued information Order 5/14/2015
3	Arroyo Grande	Tiber	Freeport-McMoRan Oil & Gas LLC	07921203	Pulas	8	1820	421	460	Dollie Zone	WD, Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.		X	X	YES	YES	3 - evaluating AE package	Issued Information Order 5/14/2015
3	Cat Canyon	West	Greka Oil & Gas Inc.	06301242	Los Flores	3-21	2870	1067	3689	Sisquoc	WD - Idle since January 1980, TDS is 22,000 mg/l				no	YES	4	No order issued - TDS of injection zone greater than 10,000
4	Chico-Martinez	Any Area	CMO, Inc.	03039980	Mitchel	35-401	710	936 KB	248	TULARE	Shut-in order issued		X	X	YES	YES	1 (Order No. 1054)	Issued Information Order 7/2/2014
4	Chico-Martinez	Any Area	CMO, Inc.	03044445	Mitchel	35-408	710	938 KB		TULARE	Shut-in order issued		X	X	YES	YES	1 (Order No. 1054)	Issued Information Order 7/2/2014
4	Deer Creek	Any Area	Modus, Inc.	10720109	Flippi	107-2	300	454 KB	690	SANTA MARGARITA	Order issued		X	X	YES	YES	1 (Order No. 1066)	Issued Information Order 3/3/2015
4	Deer Creek	Any Area	Longbow, LLC	10720136	Community	11	740	463 KB	856	SANTA MARGARITA	No longer WD, converted to OG September 2013		X	X	no	YES	4	Issued Information Order 5/15/2015
4	Edison	Edison Groves	R&R Resources, LLC	02975558	Lehr	13	444		1400	KERN RIVER	Order issued		X	X	YES	YES	1 (Order No. 1058)	Issued Information Order 7/2/2014
4	Edison	Portals-Fairfax	Redbank Oil Co.	02906644	Porter	1	566	459 KB	3365	SANTA MARGARITA	Order issued				no	YES	1 (Order No. 1059)	Issued Information Order 7/2/2014
4	Fruitvale	Main	Gordon Dole	02950233	State	1	904	443 KB	2835	ETCHEGOIN (FAIRHAVEN)	WD				no	YES	3 - evaluating AE package	Issued Information Order 5/15/2015
4	Jasmin	Any Area	Hathaway LLC	02947687	Quinn	14-10	380	578 RT	2797	CANTLEBERRY	WD - Idle since May 2013, seeking aquifer exemption. Injection within HC zone, Feb. 2017 deadline applies.				no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	02908942	Movius	3	1600	890 DF	2500	SANTA MARGARITA	WD - Idle since June 2007	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	02908945		2	1600		2405	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Western States International, Inc.	02948128	Mitchel	75	390	719 KB	1444	CHANAC	Order issued		X	X	YES	YES	1 (Order No. 1065)	Issued Information Order 3/3/2015
4	Kern Front	Any Area	Longbow, LLC	02948513	Judkins	1-7	390	768 KB	1468	CHANAC	No longer WD, converted to OG November 2014		X	X	no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Western States International, Inc.	02949825	Mitchel	76	390	747 KB	1474	CHANAC	No longer WD, converted to OG January 1997		X	X	no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Western States International, Inc.	02949915	Mitchel	65	480	724 KB	1477	ETCHEGOIN/CHANAC	WD Cancelled, SF Idle, Category 2		X	X	no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Western States International, Inc.	02949916	Mitchel	67	480	739 KB		ETCHEGOIN/CHANAC	WD Cancelled, SF Idle, Category 2				no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Longbow, LLC	02950363	Judkins	2-7	390	753 KB	1441	CHANAC	No longer WD, converted to OG November 2014		X	X	no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	02951043	Kern	WWD 1	2318	805 KB	2539	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	02961469		D-11	1600	890 KB	2330	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Belaire Oil Company	02962979		4-4W	890	664 DF	2840	SANTA MARGARITA	WD - Idle since March 1993				no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	02973065	Movius A	18	1600	883 KB	2470	SANTA MARGARITA	WD Idle since April 2006	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Badger Creek Ltd.	02986511		WD 1	1500		2310	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	03018994	Robinson	B-WD1	1300	838 KB	2774	SANTA MARGARITA	WD Idle since September 2009	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	03019413	Young Fee	WD1	1600	820 KB	2322	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	03019563		WD1	1600	793 KB	2456	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	03032871		WD2	1600	804 KB	2374	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	03044524	Young Fee	WD2	1600	848 KB	2775	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern Front	Any Area	Vintage Production California LLC	03050047	Young Fee	WD3	1600	820 KB	2743	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02926346	Overland	31D	1120	707 DF	756	CHANAC/SANTA MARGARITA	WD - Idle since January 2001	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02940729	Government 3	3	750	1059 KB	790	KERN RIVER	WD - Operator sent letter relinquishing injection approval		X	X	YES	YES	2	Issued Information Order 3/4/2015

4	Kern River	Any Area	Chevron U.S.A. Inc.	02944305	Luck	508	701	836 MAT	627	Kern River	No longer disposal - OG and SC since April 2006 - Previous injection occurred in an exempted zone (hydrocarbon)		X		no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Kern River	Any Area	Chevron U.S.A. Inc.	02951179	Monte Cristo No. 1	10-12B	701	565 DF	564	KERN RIVER	No longer disposal - OG and SC since April 1998 - Previous injection occurred in an exempted zone (hydrocarbon)		X		no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Kern River	Any Area	Chevron U.S.A. Inc.	02955750	H.H. & F.	2D	1400	488 DF	1130	CHANAC/SANTA MARGARITA	WD - Idle since December 2004	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Kern River Holdings Inc.	02962003	Ferne	SWD 1	960	570 KB	624	SANTA MARGARITA/VEDDER	WD - S.M. injection only	S.M. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02967907	Overland	34WD	1120	797 DF	624	CHANAC/SANTA MARGARITA	WD - Idle since November 2000	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02970045	San Joaquin	WD 3	946		1400	CHANAC/SANTA MARGARITA	WD	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02970046	San Joaquin	WD 4	1018	502 GL	2043	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02970047	San Joaquin	WD 5	1018	489 GL	2112	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02970048	San Joaquin	WD 6	1018	523 GL	1960	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02970049	San Joaquin	WD 7	946		1620	CHANAC/SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02971717	Overland	35WD	1018		818	CHANAC/SANTA MARGARITA	WD - Idle since November 2000	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02972050	KCL-10	2X	694		699	CHANAC/SANTA MARGARITA	WD - Idle since September 2000	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02973218	Government 3		557		1177	RIVER,CHANAC,SANTA MARGARITA	WD - Idle, into Kern River only, operator relinquished injection approval	Ch., S.M. - Yes	X	X	YES	YES	2	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02975045	American Naphtha	D1-31	1400		1458	CHANAC/SANTA MARGARITA	No longer WD (idle since January 2003, converted to OG July 2014)	Yes	X	X	no	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02975049		D3-3	1400		965	CHANAC/SANTA MARGARITA	WD	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02975053	Monte Cristo No. 1	D3-5	1400	585 DF	1412	CHANAC/SANTA MARGARITA	No longer WD (idle since April 2004).	Yes	X	X	no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02976134	Gold Standard	WD-1	1018		1773	SANTA MARGARITA	WD - Idle since December 2009	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02976158	San Joaquin	WD 9	946		1510	CHANAC/SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02976159	May	WD-1	946		1450	CHANAC/SANTA MARGARITA	WD - Idle since February 1990	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02977807	KCL-10	212	1018		1259	SANTA MARGARITA	WD - Idle since July 2001	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02979468	Davis Fee	D1-8	1400		1617	CHANAC/SANTA MARGARITA	No longer WD, converted to OG (December 2013)	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02980256		25-WD 1	1018	845 MAT	2182	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02980421	Orient	WD 1	1018		1912	SANTA MARGARITA	WD - Idle since June 1999	Yes			no	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Chevron U.S.A. Inc.	02983024	Fee A	WDW 3	1018		2075	SANTA MARGARITA	WD - Idle since June 1999	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02983025	Fee B	WDW 2	1018		1998	SANTA MARGARITA	WS - Ch.	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02983163	Queen Esther	WD 1	1018		2128	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02983164	Sterling	WD 1	1018		1807	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02983235	Fee A	WDW 4	1018		2078	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	02984592	Pearl E. Berry	WD-1	1018		1486	SANTA MARGARITA	WD - Operator sent letter relinquishing injection approval	Yes	X	X	YES	YES	2	Issued Information Order 8/11/2014
4	Kern River	Any Area	Kern River Holdings Inc.	03000162	Nukem	WD-1	1135	555 KB	2085	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	03006705	Fee B	WDW 3	1018	595 KB	2015	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Chevron U.S.A. Inc.	03010793	Hotchkiss	14D-10	1018	462 KB	991	SANTA MARGARITA	WD	Yes	X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Kern River	Any Area	Vintage Production California LLC	03010794		WD-1	1000	924 KB	333	KERN RIVER	WD, operator sent letter relinquishing injection approval		X	X	YES	YES	2	Issued Information Order 3/4/2015
4	Kern River	Any Area	Vintage Production California LLC	03010795		WD-2	1000	946 KB	563	KERN RIVER	WD, operator sent letter relinquishing injection approval		X	X	YES	YES	2	Issued Information Order 3/4/2015
4	Kern River	Any Area	Kern River Holdings Inc.	03044985	Nukem	WD-2	1135	559 KB	2163	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Kern River Holdings Inc.	03044986	Nukem	WD-3	1135	559 kb	2125	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Gray Development Co. LLC	03046344	Gray	WD-1	500	536 KB	772	SANTA MARGARITA	Order issued	Yes	X	X	YES	YES	1 (Order No. 1063)	Issued Information Order 5/11/2014
4	Kern River	Any Area	Kern River Holdings Inc.	03050678	Ferne	SWD-2	1135	578 KB	2195	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Kern River	Any Area	Kern River Holdings Inc.	03050753	Orloff	SWD-1	1135	537 KB	2233	SANTA MARGARITA	WD	Yes			no	YES	4	Issued Information Order 5/15/2015
4	McKittrick	Northeast	Linn Operating, Inc.	02958657		9-2	1975	1058 DF	420	TULARE (UPPER AIR SANDS)	WD - operator sent letter relinquishing injection approval		X	X	YES	YES	2	Issued Information Order 3/4/2015
4	McKittrick	Northeast	Chevron U.S.A. Inc.	02979339	Giant	10-WW	2740		160	TULARE	Well has been plugged and abandoned (February 2015)		X	X	no	YES	4	Issued Information Order 3/4/2015
4	McKittrick	Northeast	Chevron U.S.A. Inc.	02979439	Del Monte	3-WW	2740	1085 KB	273	TULARE	Well has been plugged and abandoned (February 2015)		X	X	no	YES	4	Issued Information Order 3/4/2015
4	McKittrick	Northeast	Linn Operating, Inc.	03001169		BW 5	1975	1035 KB	350	TULARE (UPPER AIR SANDS)	WD - operator sent letter relinquishing injection approval		X	X	YES	YES	2	Issued Information Order 3/4/2015
4	McKittrick	Northeast	Linn Operating, Inc.	03042399		WD 3	1975	1052 KB	310	TULARE (UPPER AIR SANDS)	WD - operator sent letter relinquishing injection approval		X	X	YES	YES	2	Issued Information Order 3/4/2015
4	Midway-Sunset	Any Area	Linn Operating, Inc.	02963183	Fairfield	85	2800	1430	1374	POTTER	WD - Directional well into HC zone, TDS is 4.630		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Midway-Sunset	Any Area	Linn Operating, Inc.	02982689	Fairfield	166	2800		1410	POTTER	WD - Directional well into HC zone, shut-in since January 2015, TDS is 4.630 mg/l		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Mount Poso	Baker-Grover	Pace Diversified Corporation	02958273	Tribe-B	65WD-28	1200	1065 KB	559	OLCESE	Order issued		X	X	YES	YES	1 (Order No. 1057)	Issued Information Order 7/15/2014
4	Mount Poso	Dominion	Vintage Production California LLC	02942966	Kelley-Knapp	8	539	1096 KB	1494	OLCESE	Order issued		X	X	YES	YES	1 (Order No. 1060)	Issued Information Order 7/2/2014
4	Mount Poso	Main	Vintage Production California LLC	02947370	Vedder-Rail	W.D. 314	2900	1223 DF	2365	PYRAMID HILL/VEDDER	WD - Idle since June 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02947371	Vedder-Rail	W.D. 316	2900	1201 DF	2368	PYRAMID HILL/VEDDER	WD - Idle since June 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02950412	Shapiro	234	1069	1014 DF	1760	VEDDER/WALKER	WD, For possible shut-in on Oct. 15.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Pace Diversified Corporation	02950650	Tribe A	10	916	838 KB	233	OLCESE	Order issued		X	X	YES	YES	1 (Order No. 1057)	Issued Information Order 7/15/2014
4	Mount Poso	Main	Vintage Production California LLC	02950738	Shapiro	222	1069	1063 KB	1860	VEDDER/WALKER	WD, For possible shut-in on Oct. 15.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02957201	Renzh	WD 346	2900	877 DF	1656	PYRAMID HILL/VEDDER	WD, Idle since March 2002				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02965841	Vedder-Rail	WD 325	2900	1218 KB	2340	PYRAMID HILL/VEDDER	WD, For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02967085	Shapiro	365 WD	1069	1034 DF	1840	VEDDER/WALKER	WD, For possible shut-in on Oct. 15.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02967509	B.N.B.	256	619	1050 DF	1751	PYRAMID HILL	No longer WD, converted to OG February 1996				no	YES	4	Issued Information Order 5/15/2015

4	Mount Poso	Main	Vintage Production California LLC	02968645	Vedder-Rail	WD 143	2900	1365 DF	2069	PYRAMID HILL/VEDDER	WD - Idle since June 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02968733	Mathew Fee	232WD	2900	1177 DF	2000	PYRAMID HILL/VEDDER	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02968734	Mathew Fee	263WD	2900	1160 DF	1881	PYRAMID HILL/VEDDER	WD - Idle since May 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02968909	Vedder-Rail	WD 131R	2900	1342 DF	1970	PYRAMID HILL/VEDDER	WD - Idle since April 1999				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02969364	Vedder	WD 881	2900	1215 DF	1492	PYRAMID HILL/VEDDER	WD Idle, operator sent letter relinquishing injection approval		X	X	YES	YES	2	Issued Information Order 3/4/2015
4	Mount Poso	Main	Vintage Production California LLC	02973976	Mathew Fee	272WD	2900	1136 DF	1829	PYRAMID HILL/VEDDER	WD - Idle since May 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02974055	Mathew Fee	276WD	2900	1136 DF	1878	PYRAMID HILL/VEDDER	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Pace Diversified Corporation	02974716	Tribe A	14	1652	840 KB	2092	VEDDER	WD - Idle since July 1995				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02976530	Sarrett Fee	445WD	2900		1934	PYRAMID HILL/VEDDER	WD - Idle since September 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02976604	Shapiro	132	1069	1051 DF	1734	VEDDER/WALKER	WD New. Never injected. For Cat. 3 review of the Vedder zone.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02976605	Shapiro	134	1069	1067 DF	1764	VEDDER/WALKER	WD. For Cat. 3 review of the Vedder zone.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02982922	Vedder-Rail	WD 155R	2900	1314 DF	1987	PYRAMID HILL/VEDDER	WD - Idle since September 2000				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	West	Macpherson Operating Company, L.P.	02914048	Ring 18	9	2199	1041 GL	600	VEDDER	WD into exempted zone		X		no	YES	4	No order issued - injection into exempted zone (hydrocarbon)
4	Mount Poso	West	Macpherson Operating Company, L.P.	02914064	Ring 20	3	2328	949 KB	920	OLCESE	Order issued		X	X	YES	YES	1 (Order No. 1056)	Issued Information Order 7/2/2014
4	Mount Poso	West	Macpherson Operating Company, L.P.	02987404	Ring 18	21	2199	993 KB	2380	VEDDER	WD into exempted zone				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	West	Macpherson Operating Company, L.P.	03042925	Ring 18	WD-1	2199	1042 KB	2430	VEDDER	WD. Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.				no	YES	4	Issued Information Order 5/15/2015
4	Mountain View	Arvin	Sunray Petroleum, Inc.	02914595	George	19	964	479 KB	2928	KERN RIVER	WD Idle, exempt zone				no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Mountain View	Main	Bennett Petroleum, Inc.	02914276	Mott	1	1232	450 GL	3890	KERN RIVER/CHANAC	WD - Idle (exempt zone). For Cat. 3 review of the Chanac zone.				no	YES	4	Issued Information Order 5/15/2015
4	Poso Creek	Enas	E & B Natural Resources Management Corporation	02916041	Cuccia-U.S.L.	76	1105	660 KB	1942	ETCHEGOIN/CHANAC	WD - Idle since Jan. 2007		X	X	YES	YES	4	Issued Information Order 3/4/2015
4	Poso Creek	McVan	Linn Operating, Inc.	02958126	USL	14-16SWD	2060	853 KB	1478	SANTA MARGARITA	WD into exempted zone		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Poso Creek	McVan	E & B Natural Resources Management Corporation	02960214	Clafin	10	262	961 KB	1322	ETCHEGOIN	WD.		X	X	YES	YES	4	Issued Information Order 3/4/2015
4	Poso Creek	McVan	Linn Operating, Inc.	03027059	USL	17-3WD	2060	919 KB	1628	SANTA MARGARITA	WD into exempted zone		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Poso Creek	McVan	Linn Operating, Inc.	03027060	USL	10-1WD	2060	968 KB	1529	SANTA MARGARITA	WD into exempted zone		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Poso Creek	McVan	Linn Operating, Inc.	03032463	McVan	WDW 3	2060	786 KB	1510	SANTA MARGARITA	WD into exempted zone		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Poso Creek	McVan	Linn Operating, Inc.	03038897	McVan	WDW4	2060	799 KB	1466	SANTA MARGARITA	WD into exempted zone		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Poso Creek	McVan	Linn Operating, Inc.	03040214	Poso	WDW 5	2060	809 KB	1483	SANTA MARGARITA	WD into exempted zone		X		no	YES	4	No order issued - injection into exempted zone (non-hydrocarbon)
4	Poso Creek	McVan	E & B Natural Resources Management Corporation	03052514	Enas Fee	WD1	480		3537	SANTA MARGARITA	Exempt zone				no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	02914764	New Hope	SWD1	1486	567 DF	2287	SANTA MARGARITA	WD into exempted zone				no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	02958585	USL	12-4	570	605 KB	2200	BASAL CHANAC/SANTA MARGARITA	WD into exempted zone				no	YES	4	Issued Information Order 5/15/2015
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	02959841	Federal	8-1	2734	622 KB	2916	CHANAC/SANTA MARGARITA	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	02975129	Midway Premier	62	1486	674 DF	2880	SANTA MARGARITA	WD into exempted zone				no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	02984583	USL	2-6	570	714 GL	2660	BASAL CHANAC/SANTA MARGARITA	WD - Ch.-S.M., shut-in as of March 2015. Only open to SM - exempt zone				no	YES	4	Issued Information Order 5/15/2015
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	03033614	New Hope	21WD	1486	463 KB	2295	SANTA MARGARITA	WD into exempted zone				no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	03033616	New Hope	23WD	1486	496 KB	2295	SANTA MARGARITA	WD into exempted zone				no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	03034634	New Hope	24WD	1486	607 KB	2330	SANTA MARGARITA	WD into exempted zone				no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	03034900	New Hope	12WD	1486	432 KB	2640	SANTA MARGARITA	WD into exempted zone				no	YES	4	No order issued - Previous injection in exempted zone (hydrocarbon)
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	03050777	Section 21	WD5	1486	650 KB	2756	ETCHEGOIN/SANTA MARGARITA	WD New - Et. Active				no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Coffee Canyon	Macpherson Oil Company	02942612	Parce	7-1	1265	799 KB	1567	PYRAMID HILL/VEDDER	WD				no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Coffee Canyon	Arthur McAdams	02976603	Caldwell	13	1980	1010 KB	2070	PYRAMID HILL/VEDDER	WD				no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Coffee Canyon	Macpherson Oil Company	03049700	West Signal	WD-8R	1265	774 DF	1891	WALKER	WD. Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.	Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Pace Diversified Corporation	02918136	Newby-Gibson	8	2000	815 KB	2450	VEDDER/WALKER	WD. The Walker is exempt. For Cat. 3 review of the Vedder zone.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02946951		WD-1	1967	1210 KB	2256	VEDDER/WALKER	WD. Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02947362		WD-2	1967	1158 GL	2349	VEDDER/WALKER	WD. Pursuing AE. Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02947441	Olcese	WD-342	2835		2170	OLCESE/FREEMAN-JEWETT/EDWALK	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02947543	Jewett	WD-227	2835	820 DF	1983	OLCESE/FREEMAN-JEWETT/EDWALK	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02969119		WD 1	1967	1239 KB	2095	VEDDER/WALKER	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02969120		WD 2	1967	1405 KB	2503	VEDDER/WALKER	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03009336		WD-4	1967	1010 GL	2144	VEDDER/WALKER	No longer WD, converted to OG July 2011	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015

4	Round Mountain	Main	Macpherson Oil Company	03022157		WD-6	1967	1237 KB	2359	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03031655	KCL	WD-1	1967	1158 KB	2428	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03031656	Thomas	WD-1	1967	1164 KB	2354	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03033731		WD-7	1967	1477 KB	2554	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03035699	KCL	WD-2	1967	1226 KB	2480	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03037954		WD-3	1967	1073 KB	1953	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03040869	Thomas	WD-2	1967	1038 KB	2208	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03041397		WD-8	1967	1115 KB	2196	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03042188		WD-9	1967	1314 KB	2388	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03043514	Thomas	TOW-2	1967	1174 KB	2466	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03043896		WD-10	1967	1243 KB	2067	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03044556	KCL	WD-3	1967	1112 KB	2400	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03046642	USL 18	WD-12	1967	1176 KB	2368	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03046643	USL 18	WD-13	1967	1176 DF	2390	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03046653	KCL	WD-4	1967	1208 KB	2469	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03051196		WD-16	1967	1295	2408	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03051197		WD-17	1967	1295	2416	VEDDERWALKER	WD Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03051959	Olcose 1	WD-343R	2835	1133 df	2644	OLCESE/FREEMAN-JEWETT/VEDWALK	WD -Ve -Wa.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03051960	Olcose 1	WD-344	2835	1143 DF	2173	OLCESE/FREEMAN-JEWETT/VEDWALK	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03054306		WD 4H	1967	1173KB	3058	VEDDERWALKER	WD new Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Sharktooth	Macpherson Oil Company	02918114	Bishop	6	2693	1100 GL	840	OLCESE	Order issued		X	X	YES	YES	1 (Order No. 1064)	Issued Information Order 8/11/2014
4	Round Mountain	Sharktooth	Macpherson Oil Company	02918119	Malta	3	2693	987 GL	740	OLCESE	Well plugged on June 4, 2015		X	X	YES	YES	4	Issued Information Order 8/11/2014
4	Tejon	Western	Vintage Production California LLC	02969623		330-32	2500	1088 KB	3000	TRANSITION/SANTA MARGARITA	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Tejon	Western	Vintage Production California LLC	03026630		WWD3-32	2255	1034 KB	3075	TRANSITION	WF -Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.				no	YES	4	Issued Information Order 5/15/2015
4	Tejon	Western	Vintage Production California LLC	03053049	J.V.	WWD7-32	2255	1085 KB	3358	TRANSITION	WF -Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.				no	YES	4	Issued Information Order 5/15/2015
4	Tejon	Western	Vintage Production California LLC	03053050	J.V.	WWD8-32	2400	1045 KB	3557 top of slotted liner 3587 csg Shoe	TRANSITION	No injection - WF - Pursuing AE Injection within HC zone, Feb. 2017 deadline applies.				no	YES	4	No order issued - injection well never permitted (no injection)
4	Union Avenue	Any Area	Trio Petroleum LLC	02920701	Roberts	1	1845	403 GL	3738	CHANAC/SANTA MARGARITA	No longer WD (since June 1996), converted to OG March 2006				no	YES	4	Issued Information Order 5/15/2015
4	Union Avenue	Any Area	Trio Petroleum LLC	02942258	Pon	1	1845	414 KB	4330	CHANAC/SANTA MARGARITA	WD - S.M. exempt zone. Injecting into Chanac which is H.C. exempt in the area.				no	YES	4	Issued Information Order 5/15/2015
4	Union Avenue	Any Area	Trio Petroleum LLC	03007190	Unit	1	1845	414 KB	4410	CHANAC/SANTA MARGARITA	WD - idle, shut-in since May 2013				no	YES	4	Issued Information Order 5/15/2015

Wells that have been identified as needing to cease injection on October 15, 2015 and will require an aquifer exemption before injection is allowed to continue.

District Number	FieldName	AreaName	OperatorName	APINumber	LeaseName	WellNumber	Zone TDS Data	Elevation	Top Perf	InjectionZone	Current Status (Oct. 13, 2015 Update)	Permitted into 11 Historically Exempt Aquifers?	Identified as Potentially Impacting Water Supply Wells (PIWSW)	Identified as one of the 53 (Page 2 and Attachment I, 5/15/2015 letter)	Action required by DOGGR (Enclosure D, part 1, b, i)	Action required by Water Board (Enclosure D, part 1, b, i and ii)	DOGGR Action taken 1) Issued Cease Injection Order, 2) Operator voluntarily relinquished permit, 3) Provide rationale (see Current Status), or 4) No action necessary	Additional Comments
4	Fruitvale	Main	Gordon Dale	02950233	State	1	904	443 KB	2835	ETCHEGOIN (FAIRHAVEN)	WD				no	YES	3 - evaluating AE package	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02947370	Vedder-Rall	W.D. 314	2900	1223 DF	2365	PYRAMID HILL/VEDDER	WD - Idle since June 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02947371	Vedder-Rall	W.D. 316	2900	1201 DF	2368	PYRAMID HILL/VEDDER	WD - Idle since June 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02950412	Shapiro	234	1069	1014 DF	1760	VEDDER/WALKER	WD. For possible shut-in on Oct. 15.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02950738	Shapiro	222	1069	1063 KB	1860	VEDDER/WALKER	WD. For possible shut-in on Oct. 15.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02957201	Rench	WD 346	2900	877 DF	1656	PYRAMID HILL/VEDDER	WD. Idle since March 2002				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02965841	Vedder-Rall	WD 325	2900	1218 KB	2340	PYRAMID HILL/VEDDER	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02967085	Shapiro	365 WD	1069	1034 DF	1840	VEDDER/WALKER	WD. For possible shut-in on Oct. 15.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02968645	Vedder-Rall	WD 143	2900	1365 DF	2069	PYRAMID HILL/VEDDER	WD - Idle since June 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02968733	Matthew Fee	232WD	2900	1177 DF	2000	PYRAMID HILL/VEDDER	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02968734	Matthew Fee	263WD	2900	1160 DF	1881	PYRAMID HILL/VEDDER	WD - Idle since May 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02968909	Vedder-Rall	WD 131R	2900	1342 DF	1970	PYRAMID HILL/VEDDER	WD - Idle since April 1999				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02973976	Matthew Fee	272WD	2900	1136 DF	1829	PYRAMID HILL/VEDDER	WD - Idle since May 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02974055	Matthew Fee	276WD	2900	1136 DF	1878	PYRAMID HILL/VEDDER	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Pace Diversified Corporation	02974716	Tribe A	14	1652	840 KB	2092	VEDDER	WD - Idle since July 1995				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02976530	Sarrett Fee	445WD	2900		1934	PYRAMID HILL/VEDDER	WD - Idle since September 1998				no	YES	4	Issued Information Order 5/15/2015
4	Mount Poso	Main	Vintage Production California LLC	02982922	Vedder-Rall	WD 155R	2900	1314 DF	1987	PYRAMID HILL/VEDDER	WD - Idle since September 2000				no	YES	4	Issued Information Order 5/15/2015
4	Poso Creek	Enas	E & B Natural Resources Management Corporation	02916041	Cucca-U.S.L.	76	1105	660 KB	1942	ETCHEGOIN/CHANAC	WD - Idle since Jan. 2007		X	X	YES	YES	4	Issued Information Order 3/4/2015
4	Poso Creek	McVan	E & B Natural Resources Management Corporation	02960214	Claffin	10	262	961 KB	1322	ETCHEGOIN	WD.		X	X	YES	YES	4	Issued Information Order 3/4/2015
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	02959841	Federal	8-1	2734	622 KB	2916	CHANAC/SANTA MARGARITA	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Poso Creek	Premier	E & B Natural Resources Management Corporation	03050777	Section 21	WD5	1486	650 KB	2756	ETCHEGOIN/SANTA MARGARITA	WD New - Et. Active				no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Coffee Canyon	Macpherson Oil Company	02942612	Pearce	7-1	1265	799 KB	1567	PYRAMID HILL/VEDDER	WD				no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Coffee Canyon	Arthur McAdams	02976603	Caldwell	13	1980	1010 KB	2070	PYRAMID HILL/VEDDER	WD				no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02947441	Olcose	WD-342	2835		2170	OLCSE/FREEMAN-JEWETT/VEDWALK	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02947543	Jewett	WD-227	2835	820 DF	1983	OLCSE/FREEMAN-JEWETT/VEDWALK	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02969119		WD 1	1967	1239 KB	2095	VEDDER/WALKER	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	02969120		WD 2	1967	1405 KB	2503	VEDDER/WALKER	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03051959	Olcose 1	WD-343R	2835	1133 df	2644	OLCSE/FREEMAN-JEWETT/VEDWALK	WD - Va.-Wa.	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Round Mountain	Main	Macpherson Oil Company	03051960	Olcose 1	WD-344	2835	1143 DF	2173	OLCSE/FREEMAN-JEWETT/VEDWALK	WD	Wa. - Yes			no	YES	4	Issued Information Order 5/15/2015
4	Tejon	Western	Vintage Production California LLC	02969623		330-32	2500	1088 KB	3000	TRANSITION/SANTA MARGARITA	WD. For possible shut-in on Oct. 15.				no	YES	4	Issued Information Order 5/15/2015
4	Union Avenue	Any Area	Trio Petroleum LLC	03007190	Unit	1	1845	414 KB	4410	CHANAC/SANTA MARGARITA	WD - idle, shut-in since May 2013				no	YES	4	Issued Information Order 5/15/2015

District	Field	Area	Operator	API	Lease Name	Well Number	Date of Previous Info Order	Historically treated as exempt	Zone TDS Data	Injection Zone	Top Perf	Elevation	SWB Data - Number of Water Supply Wells Identified within One Mile Radius	DOGGR Action	Well Status	Well Type	Well Type Status
2	Newhall	Whitney Canyon Area	Watt Mineral Holdings LLC	03713052	Phillips	1	na	no	6000 1161	"Lower Kraft" Zone - Pico (Pliocene) Formation	475		5	For shut-in on October 15, 2015	A	WD	A
2	Sespe	Tar Creek-Topatopa Area	Seneca Resources Corporation	11102615	Twilight	2	na	no	4600 900	Rincon-Vaqueros (Miocene) and Upper Sespe (Oligocene)	930		0	For shut-in on October 15, 2015	A	WD	A

District	Field	Area	Operator	API	Lease Name	Well Number	Date of Previous Info Order	Historically treated as exempt	Zone TDS Data	Injection Zone	Top Perf	Elevation	SWB Data - Number of Water Supply Wells Identified within One Mile Radius	DOGGR Action	Well Status	Well Type	Well Status
2	Newhall	Whitney Canyon Area	Watt Mineral Holdings LLC	03713052	Phillips	1	na	no	<del>6000-</del> 1161	"Lower Kraft" Zone - Pico (Pliocene) Formation	475		5	For shut-in on October 15, 2015	A	WD	A
2	Sespe	Tar Creek-Topatopa Area	Seneca Resources Corporation	11102615	Twilight	2	na	no	<del>4600-</del> 900	Rincon-Vaqueros (Miocene) and Upper Sespe (Oligocene)	930		0	For shut-in on October 15, 2015	A	WD	A

## NATALIE SMITH-RISNER

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115 & 125 TOLOSA PLACE, SAN LUIS OBISPO, CALIFORNIA

September 21, 2015

Department of Conservation  
801 K Street, MS 24-02  
Sacramento, California 95814

### **Attention: Aquifer Exemption**

To Department of Conservation:

This letter is in response to the proposed expansion of the current aquifer exemption designation for the Dollie sands of the Pismo formation in the Arroyo Grande oil field, located in unincorporated San Luis Obispo County near the intersection of Ormonde Road and Price Canyon Road. The purpose of this letter is to document our concerns and request additional information associated with the aquifer exemption request by Freeport-McMoRan Oil & Gas LLC (FM O&G). We appreciate the opportunity to express our concerns associated with this aquifer exemption request by FM O&G. We have reviewed the available public documentation associated with this request and associated regulatory guidance documents made available by the U.S. Environmental Protection Agency (EPA) and the State of California. Whenever possible we have cited the information and regulations discussed in this letter. Please realize that we understand the historical significance of this oil field and recognize that FM O&G has been a good neighbor and we generally support the oil production in the region and recognize its importance for economic viability for the County. However, being so close to the vicinity of the proposed exemption areas we feel it is necessary, on behalf of our family and our neighbors, to provide public comments and submit requests for additional information as allowed by Public Resources Code section 3131 Part (a).3.b.

The proposed aquifer exemption request is being considered by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources ("Division"), in consultation with the State Water Resources Control Board and the Central Coast Regional Water Quality Control Board (herein referred to as "the Water Boards") as presented in the *Notice of Proposed Aquifer Exemption* published August 20, 2015 (Division, 2015). It is anticipated that this letter and the disposition of all comments will be included within the aquifer exemption proposal to the EPA (if approved). It is also our understanding both the Division and the Water Boards preliminarily concur that the proposed aquifer exemption area

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ADDRESS 125 Tolosa Place | San Luis Obispo, CA 93401

meets the criteria for exemption under Code of Federal Regulations (CFR), title 40, section 146.4 [40 CFR 146.4] because it does not currently serve as a source of drinking water, and it will not serve as a source of drinking water in the future because this area is currently hydrocarbon producing or is capable of hydrocarbon production (Division, 2015). Additionally, the Division and the Water Boards also preliminarily concur that the injected fluid associated with the proposed Class II injection wells would be exempted and are not expected to affect the water quality that is, or may reasonably be, used for any beneficial use, due to geologic conditions and hydraulic controls (Division, 2015).

In light of recent developments in California and new understanding of how the program is implemented, scrutiny of the Aquifer Exemption program has been warranted (CWA, 2015). The underground Injection Control (UIC) program is included in the nation's landmark drinking water law because its purpose is to prevent endangerment of underground sources of drinking water. While Safe Water Drinking Act (SDWA) mandated that UIC program activities shall not "interfere with or impede" injection associated with oil and gas production, it also notes that this is true "unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection" (CWA, 2015). The Division is currently reviewing its entire UIC program and has acknowledged that the aquifer exemption program needs to be updated, we hope this specific aquifer exemption request is carefully reevaluated after the public comment phase of this project and before approval of the exemption. While modeling the behavior of the injected fluids is not required, we highly recommend that migration modeling for exemptions pertaining to the aquifer be performed to ensure that the injected fluid does not migrate outside the injection zone.

My name is Natalie Smith-Risner and my family owns properties at 115 and 125 Tolosa Place, San Luis Obispo, California, 93401. Our property is located approximately 6,300 feet to the northeast of Ormonde Road and Price Canyon Road intersection. Our parcels are located adjacent to the Arroyo Grande Oilfield (AROF) boundary as can be shown on a vicinity map in Figure 1 of Attachment 1. My family has owned this ranch property since 1979 and we utilize the land for livestock and residential purposes. We currently have a water well used for beneficial purposes on our property (e.g. livestock, water supply, drinking water, etc.) on our property and our primary concern is that the proposed activities will compromise the integrity, quality, and/or quantity of our existing underground source of drinking water (USDW) system. As of 2012, the water quality in our USDW is safe to drink, Attachment 2 provides water quality and well development information for our specific USDW. The applicant nor the Division has contacted us to perform baseline groundwater quality sampling. It should also be noted that in 1981 we experienced oil bubbling onto our property that was associated with steam injection from the AROF (also referred to as the Price Canyon oilfield)- which at the time, the Price Canyon operations were being operated by Grace

Petroleum. Please refer to Attachment 3 that provides the newspaper article from Saturday, July 11, 1981 from the local newspaper (now referred to as "The Tribune"). As you can see, our past experience with hydrocarbon contamination on our property greatly concerns us with the future potential of the proposed expanded operation by FM O&G's aquifer exemption request. This also contradicts the statements from the Division and the Water Boards that the AROF is not hydraulically connected to our properties and potentially a large number of other properties within the region that also rely on beneficial uses of water as defined by the state. We are also concerned the addition of new Class II wells within our vicinity will have the potential to exacerbate any potential hydraulic connectivity that may exist between our USDW and the oilfield.

The comments and request for information provided in this letter are based on our concerns for our family and other potentially affected individuals within the region, in addition to concerns associated with protection of human health and the environment. We understand that more than 4,000 aquifer exemptions have been approved over the history of the UIC program and that the vast majority of these have been straightforward actions that were completed in a timely manner (EPA, 2014). However, in our opinion, this specific aquifer exemption request is considerably more complex due to specific site conditions associated with the proposed request, which we intend to highlight in this letter. We believe the specific site conditions and lack of critical elements within FG O&M's application will and *should* lead to protracted discussions between the public, the EPA, and local and state authorities. Based on our review of pertinent regulatory and site specific documentation, the aquifer exemption request by FM O&G should be denied by the local and state authorities, and the EPA based on lack of adequate and sufficient technical, scientific, environmental monitoring, and legal information presented by FM O&G. We strongly believe that the aquifer exemption request falls under the category of a *substantial program revision* as discussed in EPA (2014); therefore, the Administrator shall ultimately be responsible for approving or denying the request if it makes it to that level.

Contrary to typical requests under the UIC program, and the preliminary concurrence of the Division and the Water Boards that this aquifer exemption meets regulatory criteria, we do not believe that the FG O&G aquifer exemption request and aquifer exemption application clearly meets 40 CFR 146.4. This aquifer exemption request is a *substantial program revision* and therefore requires a considerably more complex review process. One reason for this, is because the proposed exempted area is located adjacent to a large number of USDWs that are currently in use, and where the potential future use of the USDW is unclear. Additionally, as evidenced in our comments and requests for additional information, FM O&G's application lacks sufficient factual, technical, and legal basis for determination or approval of the request. Based on these findings, we are surprised that the EPA Region 9 and the state UIC program managers

have not scheduled a discussion, as recommended in EPA (2014), prior to submittal of the aquifer exemption application by FM O&G. There are numerous technical issues that require additional attention that should have been addressed prior to submittal of the FM O&G aquifer exemption application. If such discussions between the EPA and UIC program managers have occurred, then clearly there lacks robust recordkeeping available to the public. *Please let us know if such discussions have occurred to date prior to the public meeting on September 21, 2015.* We highly recommend that the significant disagreement presented in this public response document is elevated to a senior primacy program manager rather than allowing this to persist at the staff level.

One particular area of concern for this aquifer exemption request is the lack of statistically sound environmental monitoring data collected in the proposed aquifer exemption area and in surrounding areas where USDWs might be affected. Essentially there are no monitoring studies currently being conducted to quantify the amount of pollutants entering the environment and to monitor ambient levels for trends and potential problems. Specifically there is not enough water quality information to adequately characterize the existing groundwater quality conditions within the proposed exemption area or within the regional wells being used for beneficial use that can be potentially affected hydraulically, as evidenced on our property in 1981 from the AROF (see Attachment 3). Based on our review, there has been only one groundwater sample analyzed (W-1) [URS, 2014] within the northern area of the AROF located north of the Edna fault line but outside of the proposed aquifer exemption area. This is not significant enough to show the water quality on the north side of the AROF or within the proposed aquifer exemption area meets 40 CFR 146.4. In 2015, FM O&G installed four fiber optic temperature monitoring wells; however, there appears to be no planned water quality monitoring program for these wells.

The SDWA directed the EPA to establish an UIC program to prevent endangerment of USDWs [Section 1421(b)(1)], and without aquifer exemptions certain types of energy production (e.g. oil and gas), solution mining (e.g. uranium ISL facilities), or waste disposal would be severely limited in this country and restrict economic growth. However, it is important that the expansion of this particular project does not threaten or endanger the health and lives of the community and the environment for short-term economic gain of one company. Please carefully consider that the applicant has not demonstrated that exemption of this aquifer will not negatively impact the surrounding USDWs. There is general lack of qualified flow modeling, lack of baseline monitoring, and lack of overall knowledge of the complex dynamics of the groundwater system. The oil bubbling on our property in 1981 demonstrates the possibility that a hydraulic connection exists between the AROF and aqueous subsurface areas outside of this “invisible” surficial AROF boundary to the north. If this hydraulic connectivity does exist between the AROF and our

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property, there is potential for other areas not known to also be affected. We do not believe the applicant has adequately proven this. While the areas within the proposed exemption area may not be suitable for drinking water, this has not been proven in the application with sufficient monitoring data.

We believe that the approval of this aquifer exemption request will violate provisions of the UIC program and will potentially fail to protect potential sources of drinking water for a large number of people outside of the proposed exemption area boundary. We believe that FM O&G's current aquifer exemption application has not shown with sufficient technical evidence that the proposed operational maintenance of the environmental quality of the proposed aquifer exemption area in the face of seasonal variability and the occurrence of accidents, failures, and extreme events. Similarly, there lacks sufficient studies on earthquake or seismic activity known within the region and the potential effects on the existing groundwater system or the potential for climate change including droughts or extreme storm events and the effects on existing groundwater system. Since preliminary approval has been given without these scientific elements or other elements such as sufficient monitoring and flow modeling, it appears there is an overall lack of understanding by the Division and the Water Boards for the importance that system identification and analysis and interpretation of field data are integral to the development of scientific theories about the behavior of complex environmental systems. Until additional information is provided to substantiate our findings, we strongly recommend that the Division provides a *notice of incomplete submittal* to the application and specify substantially more information and studies be required by FM O&G. We recommend that modeling software would be beneficial in predicting subsurface fluid (both groundwater and injection) migration and Zone of Endangering Influence (ZEI) calculations for the permit that has not been done thus far. Additionally, there is a lack of environmental monitoring data within the actual proposed aquifer exemption area to determine existing groundwater quality conditions nor is there any environmental monitoring data from any of the regional USDWs to determine baseline groundwater conditions of potentially affected wells being used for beneficial sources.

We appreciate your time and effort on reviewing and responding to our comments which you will find after the references and prior to the attachments of this letter. We request that the Division and the Water Boards deny this application request until further information is made available and a detailed monitoring program is in place to assure the public that our existing USDWs will remain safe for consumption for future generations.

Sincerely,

Natalie Smith-Risner

## REFERENCES

- California Department of Conservation, Division of Oil, Gas, and Geothermal Resources [Division] (2015) "Notice of Proposed Aquifer Exemption" Published August 20, 2015, link:  
[ftp://ftp.consrv.ca.gov/pub/oil/Aquifer\\_Exemptions/County/San\\_Luis\\_Obispo/Arroyo\\_Grande\\_Oilfield/Dollie\\_Sands\\_Pismo\\_Formation/Arroyo%20Grande%20AE%20Hearing%20Notice.pdf](ftp://ftp.consrv.ca.gov/pub/oil/Aquifer_Exemptions/County/San_Luis_Obispo/Arroyo_Grande_Oilfield/Dollie_Sands_Pismo_Formation/Arroyo%20Grande%20AE%20Hearing%20Notice.pdf)
- Clean Water Action [CWA] (2015) "Aquifer Exemption Program" Website Link :  
<http://www.cleanwateraction.org/publication/aquifer-exemption-program> Accessed 9/20/15
- Cleath-Harris Geologists, Inc. [CHG] (2009) *Stream Characterization and Impact Studies and Well Testing Program Pismo Creek Alluvial Aquifers, Price Canyon*. October 23, 2009
- CHG (2015) *Review of DWR Well Completion Reports for Wells Within One-Mile Radius of the Freeport-McMoRan Arroyo Grande Oil Field*. June 25, 2015
- Freeport- Environmental Protection Agency [FM OP&G] (2015). *Arroyo Grande Oilfield, San Luis Obispo County, California (Application Request for Aquifer Exemption-not stated in document)*. Link:  
[ftp://ftp.consrv.ca.gov/pub/oil/Aquifer\\_Exemptions/County/San\\_Luis\\_Obispo/Arroyo\\_Grande\\_Oilfield/Dollie\\_Sands\\_Pismo\\_Formation/Arroyo%20Grande%20Oilfield%20Edna%20Member%20Dollie%20Sands%20Pismo%20Formation%20Aquifer%20Exemption%20Application%20Complete.pdf](ftp://ftp.consrv.ca.gov/pub/oil/Aquifer_Exemptions/County/San_Luis_Obispo/Arroyo_Grande_Oilfield/Dollie_Sands_Pismo_Formation/Arroyo%20Grande%20Oilfield%20Edna%20Member%20Dollie%20Sands%20Pismo%20Formation%20Aquifer%20Exemption%20Application%20Complete.pdf)
- URS (2014) *FM O&G- Aquifer Water Quality Sampling Results Phase V Development of the Arroyo Grande Oil Field San Luis Obispo County, California*. March 12, 2015
- U.S Environmental Protection Agency [EPA] (2014). *Enhancing Coordination and Communication with States on Review and Approval of Aquifer Exemption Requests Under SDWA*. Technical Memorandum. Office of Ground Water and Drinking Water (OGSDW). Published July 21, 2014.  
Link:  
[http://www.conservation.ca.gov/dog/general\\_information/Documents/EPA%20Aquifer%20Exemption%20Guidance%20and%20Checklist%20July%202014.pdf](http://www.conservation.ca.gov/dog/general_information/Documents/EPA%20Aquifer%20Exemption%20Guidance%20and%20Checklist%20July%202014.pdf)

**Comment Section A: General Comments about the Proposed Aquifer Exemption:**

**Comment #1A:** *The information provided in the aquifer exemption application provides geospatial information that has not been made available to the public. This makes it particularly difficult to fully ascertain the geographic locations of proposed boundaries, geologic features, and monitoring information. Based on the documentation provided in the FEIR (Padre, 2004), USGS website GIS data for faults, the SLO County website, and the aquifer exemption application documentation made available to the public, none of this information is available for our review. Please make all geospatial information available to the public for use in Geographic Information Systems (GIS) format (e.g. shapefiles). This includes but is not limited to geologic features (e.g. Edna fault line), Phase V boundaries, proposed aquifer exemption boundary, and any other relevant project GIS information that is presented in the FM O&G aquifer exemption application or EIR (Padre, 2004).*

**Comment #2A:** *The inventoried water well locations (DWR Well Review) provided by CHG (2015) in Appendix G 1-1 lacks owner name, contact information, and name of aquifer for specific water wells. Please provide these in the form of tables in the application. Section C.1 of the Aquifer Exemption Checklist (EPA, 2014) requires that these elements are included.*

**Comment #3A:** *There is no map in the application showing the areal extent of the exemption boundary with all the domestic wells considered potentially down gradient of the exemption boundary. There is no map showing domestic wells with hydraulic connection to the exemption boundary. Both of these are required in Section C.1 of the Aquifer Exemption Checklist (EPA, 2014). Please provide maps of both of these in the resubmitted application.*

**Comment #4A:** *The map provided in Appendix I 1-2 (Figure 5-7) does not provide well identifiers anywhere on the map. This makes it difficult to interpret. Please label the figure accordingly.*

**Comment #5A:** *There appears to be no map indicating direction and speed of groundwater in the aquifer of proposed exemption. Section C.1 of the Aquifer Exemption Checklist (EPA, 2014) requires that these elements are included. Please provide these maps and indicate how the information was obtained.*

**Comment #6A:** *How does the applicant plan to demonstrate that the proposed injection and oil and gas operations will not significantly affect the long term water quality and quantity outside of the proposed aquifer exemption area? It is the responsibility of the Division and the Water Boards to make sure the applicant shows that the aquifer is isolated from other sources of groundwater outside of the proposed aquifer exemption area, that it will not affect the water quality of groundwater outside of the proposed exemption zone, and that the water within the exemption zone is not and will never be used as a drinking water source. Based on the available site documents, this has not been demonstrated. Our family and neighbors are concerned with the water quality and/or water quantity of our USDWs being negatively affected by the future operations within the proposed aquifer exemption area. In fact, there was oil bubbling up on our pasture land in the past that was in the local newspaper (See photos in Attachment 3). This is an indication that our property may in fact be hydraulically connected to the AROF. How can we be certain that this will not occur again, just based on the assurance from the Division that the geology will not allow for this to happen? To our knowledge, there have been no substantial studies prepared for FM O&G with respect to groundwater flow modeling performed by a third party. The report provided in Appendix A7f (CHG, 2009) focused on the Pismo Creek stream flow and Pismo Creek Valley alluvial groundwater as it relates to supply for agriculture on the King Ventures Spanish Springs North and South Ranches. This information was intended to assist with determining a protocol for a future water management program. Has this information been used to develop a more detailed groundwater flow modeling analysis? Has there been a detailed water management program developed from this information? It is the responsibility of the applicant to assure the public that the proposed expanded operations will not negatively affect the surrounding communities and their drinking water supplies. There are significant drinking water sources within the project vicinity. Please refer to Figure 2 in Attachment 1 for the locations of the concerned parties and USDW locations, there are many more not shown on this map. In fact, CHG (2015) indicates there are 53 water supply wells within a one mile radius of the Arroyo Grande Oilfield. It is indicated in CHG (2015) that the subsurface hydraulic connection between the Edna sub basin and Price Canyon water-bearing zones is restricted by faulting and folding, which act as barriers to groundwater flow. However, it also states that when aquifers of the Edna Valley are fully saturated, subsurface flow into Price Canyon may occur through alluvial deposits. Has there been a groundwater flow model for the region, specifically for the properties with USDWs? Has this model been validated with real time data? We understand that the Division feels that given the current geologic stratification that we will not be affected; however, there is not enough information on our specific properties to give us the feeling that we will be safe. We request that additional comprehensive groundwater studies be performed by a qualified hydrogeologist or groundwater engineer on the*

*proposed aquifer exemption area, within the AROF, our specific properties, and our neighboring properties which include the following (See Figure 2, Attachment 1):*

- *115 Tolosa Place, San Luis Obispo, CA 93401*
- *125 Tolosa Place, San Luis Obispo, CA 93401*
- *150 Tolosa Place, San Luis Obispo, CA 93401*
- *170 Tolosa Place, San Luis Obispo, CA 93401*
- *1620 Old Oak Park Road, Arroyo Grande, CA 93420*
- *1606 Old Oak Park Road, Arroyo Grande, CA 93420*
- *365 W. Ormonde Road, San Luis Obispo, CA 93420*
- *777 Erhart Road, Arroyo Grande, CA 93420*
- *1470 Paseo Ladera, Arroyo Grande, CA 93420*
- *98 Moore Lane, Arroyo Grande, CA 93420*

**Comment #7A:** *It is the responsibility of the applicant to demonstrate the baseline water quality conditions in drinking water wells surrounding the proposed aquifer exemption area and subsequently monitor these wells for the life of the project into the foreseeable future. In the FM O&G aquifer exemption application, there is no water quality data for any wells within the 1-mile radius. Appendix G 1-1 presents a review of DWR Well Completion Reports for wells within one-mile radius of the Freeport-McMoRan Arroyo Grande Oil Field (CHG, 2015). There is no water quality data for any of these wells. The only water quality data made available in the application is from the URS (2014) memo analyzing Well No. 1 (W-1) located on the northern portion of the Freeport-McMoRan property on the east side of Price Canyon Road. This well is located approximately 3,500 feet to the northwest of our property as shown in Figure 2. One static data point of groundwater quality data is not a statistically sufficient data (nor is it spatially acceptable) to provide an indication or demonstrate the water quality for the region. Similarly, there are no groundwater quality data provided within the proposed aquifer exemption area to show that the aquifer does not meet the drinking water standard criteria required for an aquifer exemption as stated in 40 CFR 146.4.*

*To our knowledge, there have been no comprehensive monitoring programs, setup to determine baseline concentrations for the existing USDWs within the northern portion of the AROF project limits or general vicinity of the proposed aquifer exemption area. Appendix I 1-2 provides the Monitoring Wells Map showing three wells to the North near our parcel and more monitoring wells to the south. However, there has been no comprehensive monitoring program on any of the residential water supply wells or USDWs.*

*It is the responsibility of the applicant to perform sufficient monitoring on all USDW wells within the vicinity in order to assure the public that no existing drinking water wells (like ours) are being compromised with the proposed actions. Without a sufficient groundwater model for the region of all potentially affected parties with existing USDWs, there is no way to be certain what the effects of the proposed operations will be, and there are no baseline data available. We understand that the Division feels that given the current geologic stratification that we will not be affected; however, there is not enough information on our specific properties to give us the feeling that we will be safe. In fact, our water was tested in 2012 and was determined to be safe for drinking. Please see Attachment 2 for the water quality and well completion results conducted on our USDW. We request a more comprehensive groundwater monitoring program needs to be in place prior to approval of this application by the Division and the Water Boards. Specifically, we request that additional studies be performed on our properties and our neighboring properties which include the following:*

- *115 Tolosa Place, San Luis Obispo, CA 93401*
- *125 Tolosa Place, San Luis Obispo, CA 93401*
- *150 Tolosa Place, San Luis Obispo, CA 93401*
- *170 Tolosa Place, San Luis Obispo, CA 93401*
- *1620 Old Oak Park Road, Arroyo Grande, CA 93420*
- *1606 Old Oak Park Road, Arroyo Grande, CA 93420*
- *365 W. Ormonde Road, San Luis Obispo, CA 93420*
- *777 Erhart Road, Arroyo Grande, CA 93420*
- *1470 Paseo Ladera, Arroyo Grande, CA 93420*
- *98 Moore Lane, Arroyo Grande, CA 93420*

**Comment #8A:** *In the event that our USDW system is compromised by the proposed operations, what type of financial surety is in place to compensate us or other landowners? Additionally, having the proposed aquifer exemption area so close to our property boundary will likely lower the real estate value of our property- what type of compensation is proposed by FM O&G to us and other landowners that are directly affected by this application request? Have there been any socio-economic studies associated with the proposed application request?*

**Comment #9A:** *We request that a 1,250 foot radius buffer zone be applied to our property where the Aquifer Exemption Area may not be located. If this cannot be provided, we request some form of compensation for loss in real estate prices and/or other socioeconomic hardship associated with the*

*stigma of having an Aquifer Exemption Area that close to our property boundary. Please see Figure 3 in Attachment 1 for the proposed buffer area around our property.*

**Comment #10A:** *Title Page of Application. The actual title page does not provide the date published nor does it even specify that this is an aquifer exemption request application. We recommend revising the document to reflect what it actually is (e.g. an aquifer exemption request application).*

**Comment #11A:** *Figure 1 & Figure 1.1 of Application (Page 6 & 7) is difficult to read and is of poor quality and is not professionally prepared. The small font on the important descriptors of map features is pixilated and difficult to read. Please revise this map to be legible with large font and clearer.*

**Comment #12A:** *There appear to a number of errors provided in the Core Data tables for porosity, grain density, max hydraulic conductivity, water saturation, and oil saturation where a value of -999.25 is indicated. Please fix this or explain why these errors occur.*

**Comment #13A:** *The only water quality data made available in the application is from the URS (2014) memo analyzing Well No. 1 (W-1) located on the northern portion of the Freeport-McMoRan property on the east side of Price Canyon Road. Please revise Figure 2 of URS (2014) to include the proposed aquifer exemption boundary with respect to the well sampled. Additionally, there is no mention of a field quality assurance/quality control (QA/QC) program for the environmental groundwater monitoring of the one well. Please revise and provide information on the data validation and QC (i.e. rinsate collection, field duplicate samples, etc.). There is no mention of the methods and results of the QC analysis in the technical memorandum itself.*

**Comment #14A:** *Appendix I 1a provides the current monitoring well network; however, this section is poorly presented and lacks any credible presentation of the existing monitoring results (i.e. no graphs, tables, or statistical analysis). Additionally, there are no labels of monitoring locations provided in Appendix I 1-2. We request that this appendix is revised to better represent the existing data and clearly label all monitoring locations.*

**Comment #15A:** *Page 232 of the Appendices (only) section of the application. It is difficult to read the tables because of poor formatting.*

**Comment #16A:** *It has been documented that water wells inside and outside the oil field limits are naturally contaminated with hydrocarbons because of the prevalence of the tar accumulations (Freeport-McMoRan, 2015). This is a broad statement because there was no data collected prior to the initial development of the oil fields in the early 1900s. Please comment on how you can conclude that these are*

---

naturally contaminated when the actual oilfield production began in 1906 when no baseline data was available prior to this time period.

**Comment #17A:** *We recommend that further information is collected on the physical environment within the AROF and the proposed aquifer exemption area in order to adequately model the rate and direction of groundwater movement in order to develop a comprehensive environmental monitoring sampling plan. It is critical that expert knowledge plays an important role when selecting future groundwater monitoring well locations. A monitoring well in the wrong location is useless for detecting leaks in the system. Based on available monitoring data, the applicant has not shown that sufficient information is available to warrant no further monitoring. Please indicate how this will be achieved and by whom (e.g. by the applicant, the Division, or the EPA.). Please discuss how the target population unit will be defined and explain how the sampled population will equal the target population. Since there is available information on the geology a cost-effective sampling plan can be devised. Please describe the proposed sampling frequency and locations.*

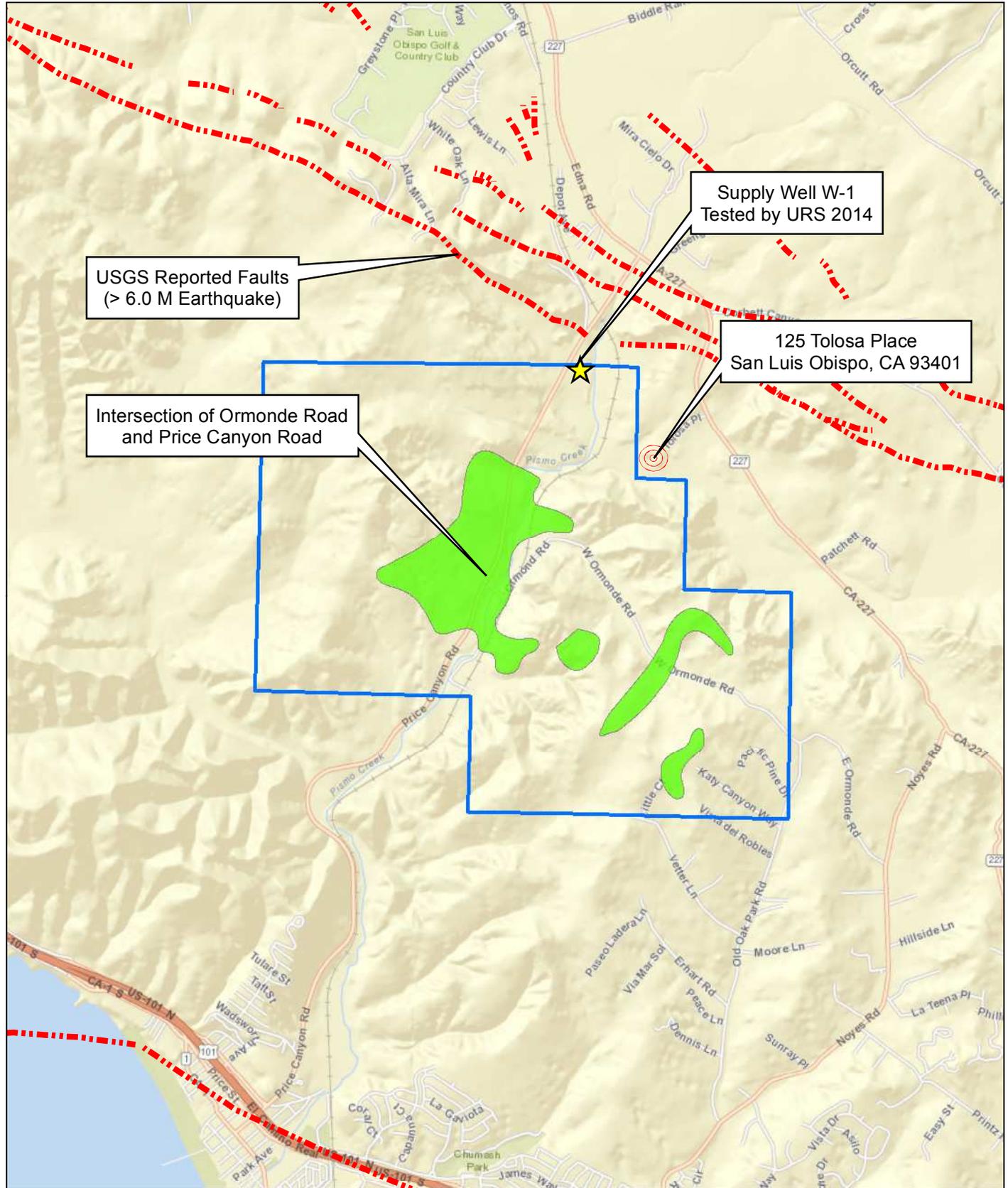
**Comment #18A:** *The proposed aquifer exemption application lacks sufficient studies on earthquake or seismic activity known within the region and the potential effects on the existing groundwater system. Please explain how this will be achieved.*

**Comment #19A:** *The proposed aquifer exemption application lacks sufficient information of the potential effects of climate change in the region including continued drought or extreme storm events and the subsequent effects on existing groundwater system*

**Comment #20A:** *The EPA suggests specific information for exempting an aquifer under 40 CFR 146.4(b), including production history of wells in the vicinity of the aquifer, availability of alternative water supplies, ability of current supplies in the area to meet future needs, costs of treatment, and cost of developing the water supply from the proposed exemption area. There does not appear to be a Statement of Basis which is essential to approving any exemption. Please explain why this is not included, and explain how the applicant will be required to provide this information and resubmit the application.*

# **ATTACHMENT 1**

## **FIGURES**

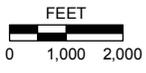


USGS Reported Faults (> 6.0 M Earthquake)

Supply Well W-1  
Tested by URS 2014

125 Tolosa Place  
San Luis Obispo, CA 93401

Intersection of Ormonde Road  
and Price Canyon Road



- Arroyo Grande Oil Field Boundary
- Existing Aquifer Exemption Area

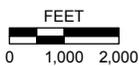
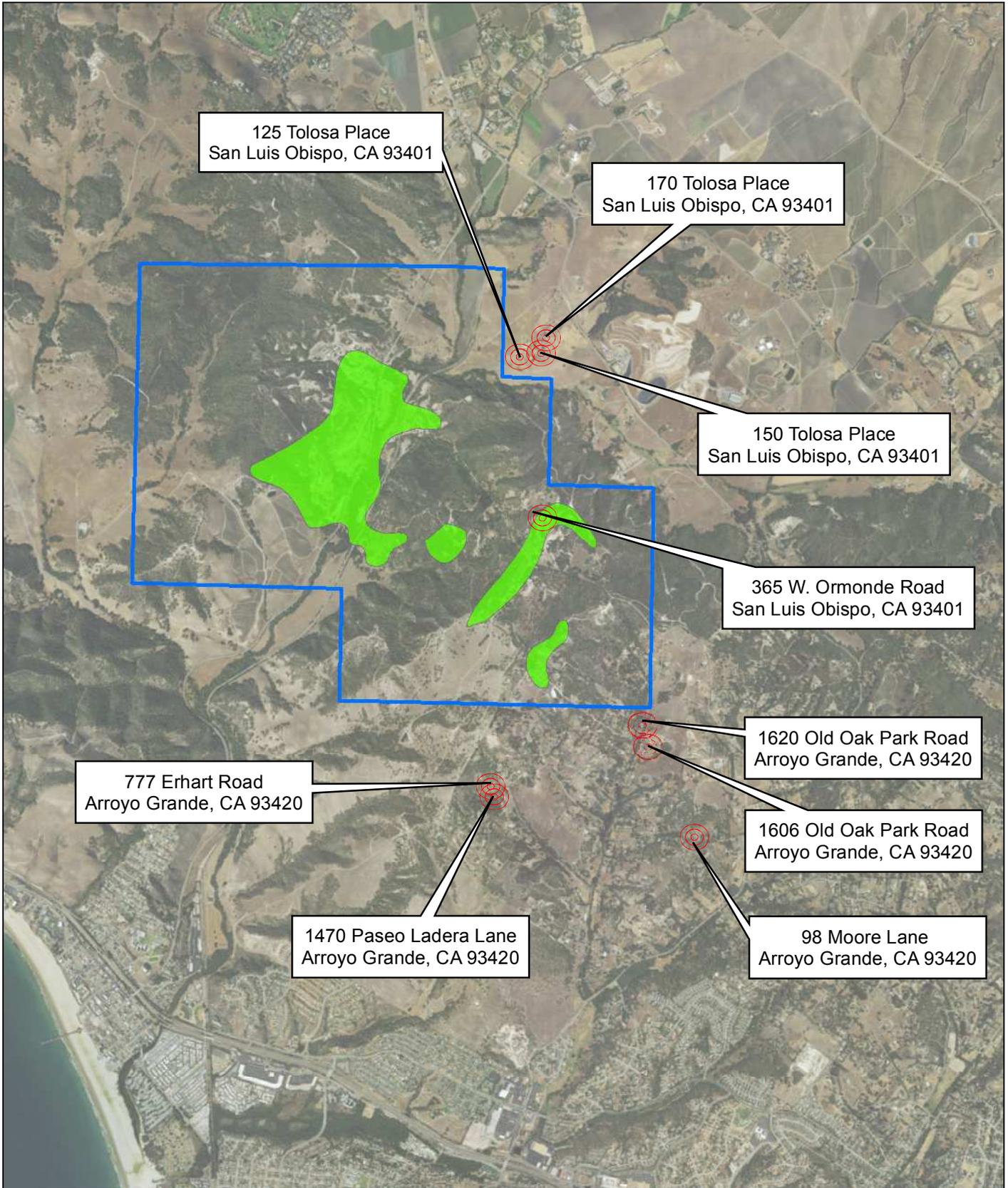
**VICINITY MAP**

Prepared for:  


Prepared by:  
 NATALIE RISNER

Location:  
 SAN LUIS OBISPO COUNTY  
 Project no.: ARROYO  
 Date: SEP 2015

Figure:  
**Figure 1**



- Arroyo Grande Oil Field Boundary
- Existing Aquifer Exemption Area

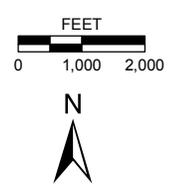
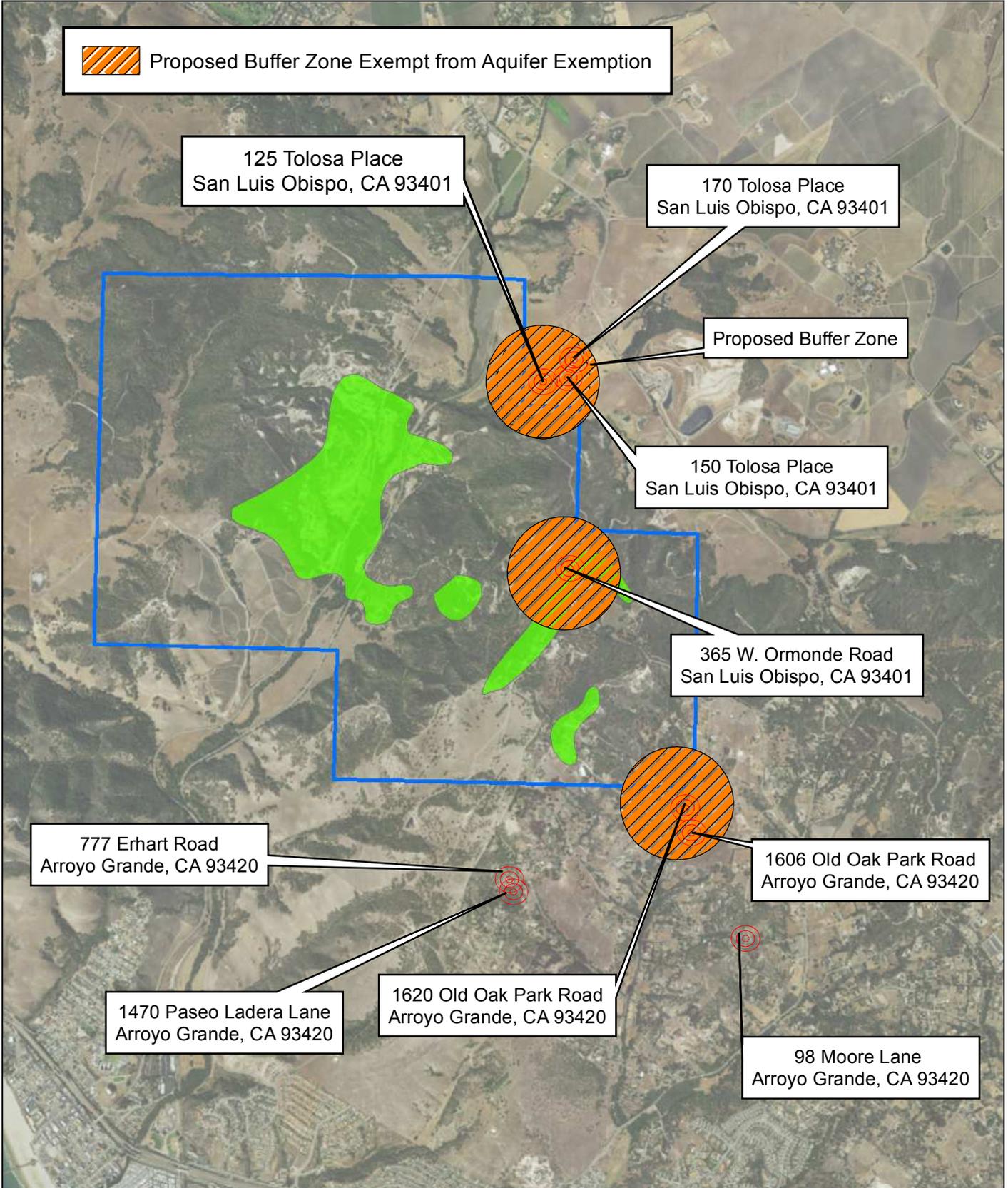
**PROPOSED GROUNDWATER MONITORING LOCATIONS**

Prepared for:  


Prepared by:  
 NATALIE RISNER

Title:  
**SAN LUIS OBISPO COUNTY**  
 Project no.: ARROYO Date: SEP 2015

Figure:  
**Figure 2**



 Arroyo Grande Oil Field Boundary  
 Existing Aquifer Exemption Area

**PROPOSED BUFFER ZONES  
 EXEMPT FROM  
 AQUIFER EXEMPTION**

Prepared for:  


Prepared by:  
 NATALIE RISNER

Location:  
 SAN LUIS OBISPO COUNTY  
 Project no.:  
 ARROYO

Date:  
 SEP 2015  
 Figure:  
**Figure 3**

**ATTACHMENT 2**

**USDW WELL INFORMATION  
FOR 115 & 125 TOLOSA PLACE**

# DRINKING WATER EVALUATION

"MCL" is Maximum Contaminant Level, the highest acceptable concentration of analyte. Compare these MCL's to your results. Acceptable RESULTS are less than the MCL's for each analyte. The MCL's are determined by California Department of Health Services. They are listed in the Code of Regulations, Title 22, Sections 64431 & 64449.

"ANALYTE" is the chemical that is measured.

"UNITS" are in mg/L (ppm). mg/L = milligrams per liter, ppm = parts-per-million. To convert mg/L to ug/L (ppb): 1 mg/L = 1,000 ug/L. 1 ug/L = 0.001 mg/L.

## PRIMARY STANDARDS - INORGANIC CHEMICALS

Primary standards analytes have potential toxic effects when above the MCL.

ANALYTE	MCL	UNITS	ANALYTE	MCL	UNITS
Aluminum	1	mg/L	Fluoride	2	mg/L
Antimony	0.006	mg/L	Mercury	0.002	mg/L
Arsenic	0.01	mg/L	Nickel	0.1	mg/L
Barium	1	mg/L	Nitrate as NO3	45	mg/L
Beryllium	0.004	mg/L	Nitrite	1	mg/L
Cadmium	0.005	mg/L	Selenium	0.05	mg/L
Chromium	0.05	mg/L	Thallium	0.002	mg/L
Cyanide	0.15	mg/L			
Asbestos	7	MFL (usually waived in local Counties)			
Lead	0.015	mg/L (Federal Action Level at distribution points)			

## SECONDARY STANDARDS/Consumer Acceptance Limits

ANALYTE	MCL	UNITS	ANALYTE	MCL	UNITS
<del>Aluminum</del>	<del>0.05</del>	<del>mg/L</del>	Manganese	0.05	mg/L
Color	15	Units	MBAS	0.5	mg/L
Copper	1	mg/L	Odor	3	Units
Corrosivity	Non-corrosive		Silver	0.1	mg/L
Iron	0.3	mg/L	Turbidity	5	Units
MTBE (VOC)	0.005	mg/L	Zinc	5	mg/L
Thiobencarb	0.001	mg/L (usually required only in Monterey County)			

	MCL: RECOMMENDED	UPPER	SHORT TERM	UNITS
Total Dissolved Solids	500	1000	1500	mg/L
Electrical Conductance	900	1600	2200	µmhos/cm
Chloride	250	500	600	mg/L
Sulfate	250	500	600	mg/L

Analytes not listed above have no MCL established, so any level is acceptable (like Sodium).  
NOTE: Organic chemicals, solvents, pesticides, herbicides, radioactivity or bacteria are not included in above tests.

part of second standards

Xylene (Sum) CA Primary MCL: 1750 ug/L  
Naphthalene: DHS DW Action level: 170 ug/L  
Methanol, USEPA IRIS reference dose: 3500 ug/L



Amanda Smith  
Abalone Coast Analytical, Inc.  
141 Suburban, Suite C-1  
San Luis Obispo, CA 93401

30 May 2012

RE: Drinking Water Testing

Work Order: 1202568

Dear Client:

Enclosed is an analytical report for the above referenced project. The samples included in this report were received on 18-May-12 14:50 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script, appearing to read "Meredith Sprister".

Meredith Sprister

Project Manager



Oilfield Environmental and Compliance, INC.

Abalone Coast Analytical, Inc. 141 Suburban, Suite C-1 San Luis Obispo CA, 93401	Project: Drinking Water Testing Project Number: 12-2879 Tobin Risner Project Manager: Amanda Smith	Reported: 30-May-12 16:18
--	--	------------------------------

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Well	1202568-01	Drinking Water	17-May-12 14:15	18-May-12 14:50

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

[www.oecusa.com](http://www.oecusa.com)

TEL: (805) 922-4772  
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

Abalone Coast Analytical, Inc. 141 Suburban, Suite C-1 San Luis Obispo CA, 93401	Project: Drinking Water Testing Project Number: 12-2879 Tobin Risner Project Manager: Amanda Smith	Reported: 30-May-12 16:18
--	--	------------------------------

**Well  
1202568-01 (Drinking Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**Oilfield Environmental and Compliance**

**Wet Chemistry by EPA or APHA Standard Methods**

Cyanide (total)	ND	0.040	mg/L	1	A205493	21-May-12	22-May-12	SM4500CN-C/E	
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**Anions by EPA Method 300.0**

Fluoride	ND	0.40	mg/L	1	A205454	18-May-12	18-May-12	EPA 300.0	
Nitrate as NO3	ND	1.8	"	"	"	"	"	"	
Nitrite as N	ND	0.40	"	"	"	"	"	"	

**Metals (Drinking Water) by EPA 200 Series Methods**

Aluminum	ND	0.050	mg/L	1	A205655	29-May-12	30-May-12	EPA 200.8	
Antimony	ND	0.0050	"	"	"	"	"	"	
Arsenic	ND	0.0020	"	"	"	"	"	"	
<b>Barium</b>	<b>0.055</b>	0.0010	"	"	"	"	"	"	
Beryllium	ND	0.0010	"	"	"	"	"	"	
Cadmium	ND	0.0010	"	"	"	"	"	"	
<b>Chromium</b>	<b>0.0031</b>	0.0020	"	"	"	"	"	"	
Lead	ND	0.0010	"	"	"	"	"	"	
Mercury	ND	0.00020	"	"	A205681	30-May-12	30-May-12	EPA 245.1	
<b>Nickel</b>	<b>0.0052</b>	0.0010	"	"	A205655	29-May-12	30-May-12	EPA 200.8	
<b>Selenium</b>	<b>0.0028</b>	0.0020	"	"	"	"	"	"	
<b>Thallium</b>	<b>0.0011</b>	0.0010	"	"	"	"	"	"	

Oilfield Environmental and Compliance

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

307 Roemer Way, Suite 300, Santa Maria, CA 93454

[www.oecusa.com](http://www.oecusa.com)

TEL: (805) 922-4772  
FAX: (805) 925-3376



Abalone Coast Analytical, Inc  
141 Suburban Road, Ste C-1  
San Luis Obispo, CA 93401  
[www.abalonecoastanalytical.com](http://www.abalonecoastanalytical.com)  
[info@abalonecoastanalytical.com](mailto:info@abalonecoastanalytical.com)

May 17<sup>th</sup>, 2012

To Whom it May Concern,

On behalf of Mr. Tobin Risner, Abalone Coast would like to certify that the water at address 125 Tolosa Place in San Luis Obispo passed with a result of ND. or Non Detect, for both Coliform and E. Coli bacteria.

Thank you for your time,

A handwritten signature in cursive script, appearing to read "Amanda Smith".

Laboratory Director  
(805)595-1080

**Abalone Coast Analytical, Inc.**

141 Suburban Road, Suite C-1 San Luis Obispo CA, 93401  
 Phone: 595-1080 Fax: 595-1080

Order #: 12-2861  
 Date/Time Rec'd: 5/16/12 1600

**Tobin Risner**  
 125 Tolosa Place  
 SLO CA 93401

**Contact:**  
 Phone: 801-5144  
 Sampler:

Project:

Sample #	Sample Description	Date / Time	Analysis	Method	Result	Units	RL	Completed
-1	Well 1	5/16/12 1500	MPN Total Coliform MPN E-coli	SM 9223 B. IDEXX	ND. ND.	/100mL /100mL	1 1	05/17/12 05/17/12

Report Completion date: 5/17/12

Reviewed:   
 Amanda Smith, Lab Director

ND = Analyte NOT DETECTED at or above RL

\* Result detected below the RL are estimated concentration

**Abalone Coast Analytical, Inc.**

141 Suburban Road, Suite C-1 San Luis Obispo CA, 93401  
Phone: 595-1080 Fax: 595-1080

Order #: 12-2862  
Date/Time Rec'd: 5/16/12 1600

**Tobin Risner**  
125 Tolosa Place  
Slo CA 93401

**Contact:**  
Phone: 801-5144  
Sampler:

Project:

Sample #	Sample Description	Date / Time	Analysis	Method	Result	Units	RL	Completed
-1	Well 2	5/16/12 1500	MPN Total Coliform MPN E-coli	SM 9223 B. IDEXX	ND. ND.	/100mL /100mL	1 1	05/17/12 05/17/12

Report Completion date: 5/17/12

Reviewed:   
Amanda Smith, Lab Director

ND = Analyte NOT DETECTED at or above RL

\* Result detected below the RL are estimated concentration

**RICHETTI COMPLETE SOLUTIONS**  
**147 BRISCO RD**  
**ARROYO GRANDE, CA 93420**  
**805-489-4065 FAX**  
**805-489-4052 OFFICE**

# Fax

To: TOBIN From: GREG RICE  
Fax: 805-299-1830 Pages: 2  
Phone: \_\_\_\_\_ Date: 4/2/12  
Re: Water Analysis CC: \_\_\_\_\_

Urgent     For Review     Please Comment     Please Reply     Please Recycle

TOBIN,

THE TDS IS BELOW 1200 ppm  
THEREFORE WHOLE HOUSE RO IS NOT  
REQUIRED ONLY UP TO YOU FOR  
LOWERING TDS. TO ABOUT 200ppm.

FIRST OPTION WOULD BE TO REMOVE  
HARDNESS & MANGANESE, THEN PROVIDE  
PURIFIED DRINKING WATER. WITH REVERSE OSMOSIS  
THIS WOULD BE THE SAME FOR LAURA'S  
HOUSE ONCE PRESSURE IS FIXED

GREG. RICE.



## Certificate of Analysis

Amanda Smith  
Abalone Coast Analytical, Inc.  
141 Suburban, Suite C-1  
San Luis Obispo, CA 93401

Report Issue Date: 03/12/2012 12:59  
Received Date: 02/29/2012  
Received Time: 07:30

Lab Sample ID: A2B1991-01  
Sample Date: 02/28/2012 10:54  
Sample Type: Grab

Client Project: 12-1180  
Sampled by: Client  
Matrix: Drinking Water

Sample Description: Well // 12-1180-1

## General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aggressive Index		13				A202516	03/12/12	03/12/12	
Alkalinity as CaCO <sub>3</sub>	SM 2320 B	640	30	mg/L	10	A202170	03/02/12	03/02/12	
Bicarbonate as CaCO <sub>3</sub>	SM 2320 B	640	30	mg/L	10	A202170	03/02/12	03/02/12	
Carbonate as CaCO <sub>3</sub>	SM 2320 B	ND	30	mg/L	10	A202170	03/02/12	03/02/12	
Hydroxide as CaCO <sub>3</sub>	SM 2320 B	ND	30	mg/L	10	A202170	03/02/12	03/02/12	
Chloride	EPA 300.0	220	5.0	mg/L	5	A202063	02/29/12	02/29/12	
Conductivity @ 25C	SM 2510 B	1900	1.0	umhos/cm	1	A202113	03/01/12	03/01/12	
Langlier Index	SM 2330 B	1.3				A202516	03/12/12	03/12/12	
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.050	mg/L	1	A202087	02/29/12 15:22	02/29/12 15:22	
pH (1)	SM 4500-H+ B	8.0		pH Units	1	A202113	03/01/12	03/01/12	
pH Temperature in °C		19.0							
Sulfate as SO <sub>4</sub>	EPA 300.0	85	10	mg/L	5	A202063	02/29/12	02/29/12	
Total Dissolved Solids	SM 2540C	1100	5.0	mg/L	1	A202105	03/01/12	03/05/12	

## Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Calcium	EPA 200.7	120	0.10	mg/L	1	A202125	03/01/12	03/08/12	
Copper	EPA 200.7	ND	0.050	mg/L	1	A202125	03/01/12	03/08/12	
Hardness as CaCO <sub>3</sub>		359 mg/L 500	0.41	mg/L					
Iron	EPA 200.7	0.13	0.050	mg/L	1	A202125	03/01/12	03/08/12	
Magnesium	EPA 200.7	69	0.10	mg/L	1	A202125	03/01/12	03/08/12	
Manganese	EPA 200.7	0.051	0.010	mg/L	1	A202125	03/01/12	03/08/12	
Potassium	EPA 200.7	8.9	2.0	mg/L	1	A202125	03/01/12	03/08/12	
Silver	EPA 200.7	ND	0.010	mg/L	1	A202125	03/01/12	03/08/12	
Sodium	EPA 200.7	210	1.0	mg/L	1	A202125	03/01/12	03/08/12	
Zinc	EPA 200.7	0.063	0.050	mg/L	1	A202125	03/01/12	03/08/12	



## Pump Test Report

Customer **TOBIN RISNER**  
Address **125 TOLOSA**  
City and State **SAN LUIS OBISPO, CA 93401**  
Location of Test **same**

Date: **6-15-12**

### Test Information:

Time	Pumping Level	G.P.M
11.00AM	59'	5
1115	64'	5
1130	69'	5
1145	77'	5
1200PM	84'	5
1215	85'	5
1230	86'	5
1245	87'	5
100	87'6"	5
130	87'6"	5
200	87'6"	5
230	87'6"	5
300	87'6"	5

### Well Information:

Well Size	8"	Well Depth	147'
Test pump size	7 S410	Pump Setting	140'
Standing Level	59'		
Hours of Running	4		

Test Started **1100am**

Shut Down **300pm**

Recovery 38' in 30min

Additional Information:

**TESTED BY JIM BUSTAMATE**

  
Ben Thompson  
Pump Department Manager

A FARMER OWNED COOPERATIVE

224 Tank Farm Road, Post Office Box 111, San Luis Obispo, CA 93406 • 805.543.3751

Also serving you in Arroyo Grande, Buellton, Paso Robles, and Santa Maria

**ATTACHMENT 3**

**JULY 1981**

**TRIBUNE ARTICLE ON OIL BUBBLING AT PROPERTY**



Time March 22/Telegram Tribune

Oil gushes in mishap along Highway 227

## Oil bubbles up in couple's rural backyard

It's a gusher!

Laura Smith looked outside the window of her home on Highway 227 Friday afternoon and saw a jet of black oil bubbling up from her backyard.

Only problem is, Laura and Dale Smith lease the oil and mineral rights to Grace Petroleum Co. on the 23 acres where they raise and graze horses.

Mrs. Smith said she noticed the oil bubbling furiously to the surface about 1 p.m.

She alerted Grace Petroleum at the nearby Price Canyon operations. By the early evening when workers had spent 1½ hours moving earth to contain it, the oil had formed a pool some 30 feet across.

Greg Kalkbrenner, district engineer for Grace in Santa Maria, traced the problem to a nearby oil pump, where steam was turned on about three weeks ago to make the oil easier to bring up.

Steam from the oil pump apparently backed up along an outcropping until oil finally was forced through the ground, Kalkbrenner said.

Spontaneous oil pools have appeared several times before in Price Canyon, he said.

Once the oil stopped gushing, Price Canyon field superintendent Jim Jordan said workers would cover up the pool with topsoil and reseed the land so it could revert to pasture.



## Timeline of Events at Arroyo Grande Oil Field (AGOF)

As of 10/12/15

- 1980--Steam flooding begins at AGOF
- 1984--Division of Oil, Gas & Geothermal Resources (DOGGR) receives "primacy" from US EPA
  - ✓ Allows DOGGR to oversee oil and gas underground injection program in state of California
  - ✓ Approves limited aquifer exemption within the AGOF based on current oil operations
- 2005--Plains Exploration (PXP) receives a conditional use permit (CUP) from the County (based on a 2004 Environmental Impact Report (EIR)) for **Phase IV Expansion Project**, which includes:
  - ✓ Grading of 4 new well pads (total disturbance of about 2.68 acres);
  - ✓ Grading on 18 existing well pads (total disturbance of about 4.22 acres);
  - ✓ Construction of 95 production wells;
  - ✓ Construction of 30 injection wells;
  - ✓ Construction of 3 new steam generators (previously approved in the 1994 Phase III Development Plan); and,
  - ✓ Increasing production of marketable quality crude oil from 1,800 – 1,900 barrels per day (BPD) to 5,000 BPD.
- 2008--EIR/permit issued for Water Reclamation Facility (designed to dewater the reservoir to improve oil extraction efficiency)
- 2012 (October 30)--PXP applies to County for a conditional use permit (CUP) for its **Phase V Expansion Project** (Application number DRC2012-00035), which includes:
  - ✓ Addition of 8 new well pads, modification of 33 existing pads and the use of other existing pads to provide for...
  - ✓ Up to 450 new wells (oil, steam injection, re-injection, replacement) (100 of these new wells would be 'replacement' wells);
  - ✓ Installation of additional production and steam lines to the new wells;
  - ✓ Expansion of existing electrical power system; and
  - ✓ Replacement of one existing pipe bridge over Pismo Creek.
- 2013--Water Reclamation Facility becomes operational (filters produced water from oil extraction operations which is then reinjected into the aquifer or discharged into Pismo Creek per an NPDES permit)
- 2013--Freeport McMoRan (FMOG) acquires PXP
- 2014 (Fall)--County issues Minor Use Permit for 10-12-inch **Pipeline** from AGOF to Phillips 66 Santa Maria Refinery in Nipomo Mesa to move up to 10,000 bpd of oil, based on a Negative Declaration (Applicant: Phillips 66 Pipeline LLC). Pipeline will run down residential streets and cross waterways.
- 2014-2015--Working on Draft Environmental Impact Report (EIR) for Phase V Expansion Project

- 2015--FMOG requests that the Division of Oil, Gas, & Geothermal Resources (DOGGR) submit to US EPA an application for **Aquifer Exemption** (exempt the aquifer from protection under the Safe Drinking Water Act so it can inject wastewater into it)
  - ✓ FMOG realized it had 89 Class I (disposal) and Class II (steam injection) wells outside the currently exempted aquifer
  - ✓ This includes 8 disposal injection wells are *actively* injecting wastewater non-exempt aquifer
  - ✓ Application based on 1) hydrocarbon bearing aquifer, and 2) "bowl"-shaped aquifer keeps groundwater isolated
- 2015 (July)--FMOG applies for extension of Phase IV Expansion Project CUP because still hasn't drilled 31 of the wells included in Phase IV Expansion Project (20 production, 8 steam injection, and 3 water disposal wells).
  - ✓ FMOG wants an additional 3 years to drill these wells (up to August 2018 "or until such time as a decision regarding FM O&G's pending CUP application for the Phase V Development of AGOF is made by the County")
- 2015 (August 12)--FMOG submits request to County to postpone Phase V Expansion Project DEIR until after completion of aquifer exemption process
- 2015 (Sept. 21)--State holds hearing on aquifer exemption request
- 2015 (Sept. 28)--Comments due on aquifer exemption request
- 2015 (Oct. 22)--County Planning will hold hearing on request for CUP extension for Phase IV Expansion Project

As of August 2015, operations at AGOF consist of:

- ✓ 221 active production wells
- ✓ 48 active injection wells (8 water disposal--all outside current exempted aquifer; 40 steam injection)
- ✓ Average daily production currently 1,350 barrels of oil equivalent per day (BOEPD)
- ✓ Production depth ranges from 250' – 1,700'

What is the current process for dealing with produced water at AGOF?\*

- ✓ 28,300-30,000 bpd oil + water comes out of **production wells**
  - About 1350 bpd oil sent to a **refinery**
  - Remaining 27,000-29,000 bpd produced water goes to a **water softening plant**
    - 7600 bpd water goes to steam generators (**steam injection**)
    - Remaining 19,400 bpd goes to **Water Reclamation Facility (WRF)**
      - 15,000-18,000 bpd from WRF discharged into **Pismo Creek**
      - 4,400 bpd "clean" water injected into disposal wells in **aquifer**

\* All numbers approximate. From Water Board presentation at Sept. 21, 2015 hearing & aquifer exemption application.



**Fw: ATTENTION: HEARING OCT 22 AGENDA ITEM #14 FREEPORT  
MCMORAN**

**John McKenzie** b : Ramona Hedges

10/19/2015 12:17 PM

Hi Ramona,

Please post/send the following email. Thank you.

John McKenzie  
Senior Planner  
SLO County Planning & Building Department  
976 Osos St. - Rm 200, San Luis Obispo, CA 93408  
805/781-5452  
FAX 805/788-2413  
www.sloplanning.org



----- Forwarded by John McKenzie/Planning/COSLO on 10/19/2015 12:16 PM -----

From: "ginger lordus" <ginger@livingmastery.com>  
To: <jdmckenzie@co.slo.ca.us>  
Date: 10/19/2015 12:03 PM  
Subject: ATTENTION: HEARING OCT 22 AGENDA ITEM #14 FREEPORT MCMORAN

---

Hi John,

Super excellent job the Initial Study Summary- Environmental Checklist –Phase V Oil Field Expansion Conditional Use Permit.

Would you please see that my “public comment” letter below gets to the right place today ?  
The [rhedges@co.slo.ca.us](mailto:rhedges@co.slo.ca.us) address is not going through.

I hope all is well with you and Kelly,

Ginger Lordus 540-1109

**From:** Ginger Lordus [<mailto:ginger@livingmastery.com>]  
**Sent:** Sunday, October 18, 2015 9:02 PM  
**To:** 'rhedges@co.slo.ca.us'  
**Subject:** ATTENTION: HEARING OCT 22 AGENDA ITEM #14 FREEPORT MCMORAN :

I Ginger Lordus am a 20 year resident at 777 Erhart Road Arroyo Grande.  
I urge you to deny the " request by FREEPORT-MCMORAN OIL & GAS for a Conditional Use Permit (CUP) to amend the previous CUP to extend the amount of time allowed to drill previously approved Phase IV oil wells (D010386D) for the following reasons:

1) The 2004 FEIR predates California's serious drought. San Luis Obispo County is under D4 restrictions (highest Federal drought rating). Freeport McMoRan's non-essential water use will increase to over 1.5 billion gallons a year.

2) The 2004 FEIR predates San Luis Obispo's Countywide Water conservation program. Removing any ground water during this extended drought and sending it to the ocean is NOT consistent with the intent of the Countywide Water conservation program.

3) The 2004 FEIR predates technology needed to accurately track, monitor, and measure subsurface activity to include earthquakes and reinjected toxic waste water. The California Council on Science and Technology's EIR, mandated by SB4, reports that this technology and necessary scientific data is not available, the technology to monitor underground activities is approximately 3 years away from market.

What we do know, is that we don't know, and until we do know, we should say NO!

4) The 2004 FEIR predates the Energy Policy of 2005 and the Underground Injection Control program which was not addressed and hence is in violation of the Safe Drinking Water Act in 2004.

5) The 2004 FEIR predates the Energy Policy Act of 2005 and violates all the laws on Clean Air, Clean Water, Safe Drinking Water Act, Resources Conservation and Recovery Act, The National Environmental Policy Act and the Community Right to Know Act .

6) The 2004 FEIR does not address Subsidence, which is required in the EIR.

7) The current viability of this project, and hence safe and legal practices, is in question. The reduced price of oil, questionable financial stability of Freeport McMoRan, and possible "sale" of this project needs to be scrutinized.

#### Resource links

Monthly Drought Update September 1, 2015 San Luis Obispo County

<http://agenda.slocounty.ca.gov/agenda/sanluisobispo/5081/QXR0YWNobWVudCAxIjYgTW9udGhseSBEm91Z2h0IFVwZGF0ZS5wZGY=/12/n/49454.doc>

SLO County wide water and conservation program

<http://www.slocounty.ca.gov/Assets/PL/environmental/COUNTYWIDE+WATER+CONSERVATION+PROGRAM/2.0+Project+Description.pdf>

NEW research *Science 12 July 2013* shows increased risk for earthquakes caused by injection water drilling for oil and gas extraction

<http://www.sciencemag.org/content/341/6142/1225942.short>.

Energy Policy Act 2005

[http://energy.gov/sites/prod/files/2013/10/f3/epact\\_2005.pdf](http://energy.gov/sites/prod/files/2013/10/f3/epact_2005.pdf)

California's sinking terrain is costly – just ask San Luis Obispo

<http://www.revealnews.org/article/californias-sinking-terrain-is-costly-just-ask-san-luis-obispo/>

Lawmakers grill state oil regulators on oversight failures

<http://www.latimes.com/local/lanow/la-me-lawmakers-grill-oil-regulators-20150310-story.html>

Oil Regulators Permitted Underground Injection Wells Before Assessing Water Pollution Threats

[http://www.biologicaldiversity.org/news/press\\_releases/2015/oil-waste-10-08-2015.html](http://www.biologicaldiversity.org/news/press_releases/2015/oil-waste-10-08-2015.html)

California's Wastewater Injection Problem Is Way Worse Than Previously Reported

<http://www.desmogblog.com/2015/02/11/not-hundreds-thousands-oil-industry-injection-wells-dumping-wastewater-protected-california-aquifers>

Freeport McMoRan Inc Probability Of Bankruptcy

[https://www.macroaxis.com/invest/ratio/FCX--Probability\\_Of\\_Bankruptcy](https://www.macroaxis.com/invest/ratio/FCX--Probability_Of_Bankruptcy)

Freeport-McMoRan considers exiting oil and gas business

<http://finance.yahoo.com/news/freeport-mcmoran-considers-exiting-oil-132733936.html>

Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources Executive Summary

[http://www2.epa.gov/sites/production/files/2015-06/documents/hf\\_es\\_erd\\_jun2015.pdf](http://www2.epa.gov/sites/production/files/2015-06/documents/hf_es_erd_jun2015.pdf)



Planning Commission Contact Form (response #345)  
 Internet Webmaster

to:

planningcommission@co.slo.ca.us

10/20/2015 02:49 AM

Hide Details

From: "Internet Webmaster" <webmaster@co.slo.ca.us>

To: "planningcommission@co.slo.ca.us"

<planningcommission@co.slo.ca.us>

## Planning Commission Contact Form (response #345)

### Survey Information

Site:	County of SLO
Page Title:	Planning Commission Contact Form
URL:	<a href="http://www.slocounty.ca.gov/planning/staff/PCForm.htm">http://www.slocounty.ca.gov/planning/staff/PCForm.htm</a>
Submission Time/Date:	10/20/2015 2:48:40 AM

## Survey Response

Name	betty winholtz
Contact Information (Phone Number, Email, etc.)	winholtz@sbcglobal.net
Question or Comment	<p>This is a comment for the record regarding the well proposal in South County on your agenda for this Thursday, October 22. As a 30-year county resident, I am concerned about the state of our ground water--both quantity and quality. I oppose this proposal. Not much can be worse than consciously choosing to spoil the source of water for children, women, and men, let alone their environment. Vote no on this proposed project.</p>

Dear Planning Commission,

We are writing to oppose any amendment to the Conditional Use Permit proposed by FREEPORT-MCMORAN OIL & GAS. The ten year old Final Environmental Impact Report is flawed in numerous ways and does not reflect current conditions.

1. There was no Underground Injections Control program when the FEIR was issued and DOGGR's oversight of this project has been severely lacking.
2. The 2004 FEIR predates the Energy Policy of 2005 and is in violation of the Safe Drinking Water Act. Injecting billions of gallons of toxic waste into a protected aquifer is an ongoing illegal and unlawful activity.
3. There was not a mandatory emergency drought in effect 10 years ago. NASA reports California has 5 months of stored water left, that includes groundwater. San Luis Obispo County is under D4 restrictions. It is the highest Federal rating. We can not afford to have any precious drinking water used for extraction of oil or injection of toxic wastes.
4. Earthquakes were not considered. There is considerable evidence that injection has triggered earthquakes in areas far more stable than the Central Coast.

We urge you to put an immediate moratorium on all enhanced well stimulation and waste injection until a current EIR can demonstrate that the actions of FREEPORT-MCMORAN GAS AND OIL are safe, protect our water supply and are in compliance with all California and federal laws.

Sincerely,

Mary and Garry Eister  
815 Willow Lane  
Arroyo Grande, CA

October 20, 2015

**Planning Commissioners**

Jim Irving, 1st District

Ken Topping, 2nd District

Eric Meyer, 3rd District

Jim Harrison, 4th District

Don Campbell, 5th District

**Conditional Use Permit (CUP) by FREEPORT-MCMORAN OIL & GAS**

To Commissioners

This letter is in response to the continued hearing to consider a request by FREEPORT-MCMORAN OIL & GAS for a Conditional Use Permit (CUP) to amend the previous CUP to extend the amount of time allowed to drill previously approved Phase IV oil wells (D010386D). This request would extend the current limit for an additional 3 years to install these previous approved wells (approximately 31 wells not yet installed). The project is located at 1821 Price Canyon Road (San Luis Obispo) on the east and west sides of Price Canyon Road, approximately 2.7 miles north of the City of Pismo Beach, in the South County planning area (San Luis Bay Inland sub area South). The Environmental Coordinator found that the previously certified Final Environmental Impact Report (FEIR) is adequate for the purposes of compliance with CEQA. Thank you for allowing for public comment on this project.

My name is Natalie Smith-Risner and my family owns property at 115 and 125 Tolosa Place, San Luis Obispo, California, 93401. Our property is located approximately 6,300 feet to the northeast of Ormonde Road and Price Canyon Road intersection. Our parcel is located adjacent to the Arroyo Grande Oilfield (AROF) boundary. My family has owned this ranch property since 1979 and we utilize the land for livestock and residential purposes. We currently have a water well used for beneficial purposes on our property (e.g. livestock, water supply, drinking water, etc.) on our property and our primary concern is that the proposed activities will compromise the integrity, quality, and/or quantity of our existing underground source of drinking water (USDW) system. We also have concerns about air quality and noise pollution that potentially will be affected from activities at AGOF. This extension of a permit that was approved based on an FEIR from 2004 needs to be updated. I believe a supplemental EIR is necessary before this is approved.

1. There is a recent study that came out with evidence of earthquakes and faults being reactivated from injection of wastewater from enhanced oil and gas exploration. This was not covered in the EIR from 2004. There are a number of faults in the area and this could affect our groundwater supply and safety above ground. Below I have attached some articles and information on this subject:

<http://www.usgs.gov/newsroom/article.asp?ID=4144#.ViCNv36rSUI>

“Wastewater injection into undisturbed formations is also more likely to induce earthquakes than injection for enhanced oil recovery. The durations and volumes for both kinds of wells are similar. The difference between these wells is that enhanced oil recovery injects large volumes of fluid into depleted reservoirs where oil and gas have already been extracted and recycles produced water such that the pressure within the injection reservoir rarely exceeds the preproduction level. In contrast, wastewater injection is injected into virgin formations and thus raises the pore pressure from their initial levels.

Avoiding pore-pressure increases within reservoirs reduces the likelihood of enhanced oil-recovery operations inducing earthquakes.” ( From USGS see link below).

[https://profile.usgs.gov/myscience/upload\\_folder/ci2015Jun1012005755600InducedEQs\\_Review.pdf](https://profile.usgs.gov/myscience/upload_folder/ci2015Jun1012005755600InducedEQs_Review.pdf)

Some other articles on the subject are as follows:

<http://www.npr.org/2015/04/23/401624166/oklahomans-feel-way-more-earthquakes-than-californians-now-they-know-why>

<http://onlinelibrary.wiley.com/doi/10.1002/2014GL062730/full>

<http://earthquake.usgs.gov/research/induced/>

## 2. The Aquifer Exemption Proposal

On August 20, 2015 the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (“Division”), in consultation with the State Water Resources Control Board and the Central Coast Regional Water Quality Control Board (collectively “Water Boards”), sent notice regarding a proposal to expand the current aquifer exemption designation for the Dollie sands of the Pismo formation in the Arroyo Grande oil field (in unincorporated San Luis Obispo county near the intersection of Ormonde Road and Price Canyon Road). Subject to approval by the United States Environmental Protection Agency (“US EPA”), the proposed aquifer exemption would allow the State, in compliance with the federal Safe Drinking Water Act, to approve Class II injection into the identified area, either for enhanced oil recovery or for injection of fluids associated with oil and gas production for disposal.

We have not heard from DOGGR and do not have an answer on this issue. Any decision to extend this permit should be postponed until the state responds to this application. A number of the wells that you would be potentially approving at this hearing fall outside the current aquifer exemption boundary on the Arroyo Grande oil field. The division has admitted to handing out permits without the proper procedures in place. They have problems with their UIC (Underground Injection Control) program that was put into place to determine where these exemptions can be approved. This represents actions violating the Safe Drinking Water Act and which put our environment at risk. It would be reckless for San Luis Obispo County to approve an exemption currently under scrutiny of the state Water Boards and Federal and EPA. Additionally, the county’s own website states the following regarding Phase V of this project, On August 12, 2015 the applicant submitted: “Request by applicant to postpone completion of the DEIR until completion of the State Aquifer Exemption process” This too should be postponed pending reevaluating as none of this information was considered in the FEIR of 2004. I also request that the county require a ground water monitoring program for the USDW’s surrounding the oilfield within one mile. Freeport or any future owner of the wells at the oilfield should be responsible for compensation for a third party to implement the testing. The following represents what my family faces if your board decides to support the exemption of the aquifer adjacent our property.

“Once an exemption is issued, it's all but permanent; none have ever been reversed. Permitted companies can inject anywhere, but impose little or no obligations to protect the surrounding water if it has been exempted. The EPA and state environmental agencies require applicants to assess the quality of reservoirs and to do some basic modeling to show where contaminants should end up. But in most cases there is no obligation, for example, to track what has been put into the earth or — except in the case of the uranium mines — to monitor where it does end up. The biggest problem now, experts say, is that the EPA's criteria for evaluating applications are outdated. The rules — last revised nearly three decades ago — haven't adapted to improving water treatment technology and don't reflect the changing value and scarcity of fresh water. Aquifers once considered unusable can now be processed for drinking water at a reasonable price.” (taken from the link below)

[http://www.huffingtonpost.com/2012/12/11/epa-aquifer-exemptions-injection-wells\\_n\\_2277914.html](http://www.huffingtonpost.com/2012/12/11/epa-aquifer-exemptions-injection-wells_n_2277914.html)

Sadly, if these activities continue without better regulation, monitoring and due-diligence: "In 10 to 100 years we are going to find out that most of our groundwater is polluted," said Mario Salazar, an engineer who worked for 25 years as a technical expert with the EPA's underground injection program in Washington. "A lot of people are going to get sick, and a lot of people may die."

“The boom in oil and natural gas drilling is deepening the uncertainties, geologists acknowledge. Drilling produces copious amounts of waste, burdening regulators and demanding hundreds of additional disposal wells. Those wells — more holes punched in the ground — are changing the earth's geology, adding man-made fractures that allow water and waste to flow more freely.” (taken from link below)

<http://www.propublica.org/article/injection-wells-the-poison-beneath-us>

3. Well Casing Safety for steam injection wells. The steam injection wells proposed to be installed and currently in use at Arroyo Grande Oil Field represent a great increase in risks my family will have to face. A study completed in 2008 shows the high rate of failure of well casings. I worry that with the state's out-of-date regulations for the oil and gas industry compared with the new techniques for oil extraction which operate beyond the scope of older regulation standards, we as a county need to protect ourselves from what Big Oil is doing in our backyard. I am attaching an article from an oil industry's periodical regarding this issue; the proposed techniques for oil development in the Arroyo Grande Oil Field represent safety hazard which are not currently well understood or regulated. Further review of the methods proposed and this analysis of the industrial activities must be added to the supplemental EIR that must be done to approve these wells. “Casing failure rate is high in steam injection wells and especially in cyclic steam injection wells.” (see attached article “Casing Failure in Cyclic Steam injection wells”)
4. Completeness of FEIR from 2004 given new techniques proposed for well drilling. Another issue I have with this project is that the FEIR from 2004 did not consider was large increase in the Aquifer Exemption boundary and how this will affect property values and/or even desirability of adjacent properties considering the stigma this exemption will cast on our property given the extension of the aquifer exemption up to our property line. My family should not be affected negatively by my neighbor's industrial activities.
5. Oil Extraction Well Abandonment and Long Term Risks. Who is going to safely abandon these wells and clean up and reclaim the land when the oil companies have completed their extractions and have moved on, sold out or declared bankruptcy? If we are left to deal with the consequences the oil well developers didn't anticipate or consider, who will assure that their short term gain will not cause more damage in the long run to the community and the county after the oil well developers are done with sucking everything they can out of our land? Have you considered the exit plan? Who is going to make sure these wells are

closed up and abandoned correctly when the state already wants to give away exemptions for contamination the oil industry has plans to create?

<http://www.npr.org/2015/10/19/449976530/with-abandoned-gas-wells-states-are-left-with-the-cleanup-bill>

Please consider the long term viability of San Luis Obispo County in your evaluation of the development of the Arroyo Grande Oil Fields and other such extractive industries in the county. If we don't have a good idea of where is community is steered by industry driven by short term gains, our future will sadly be sacrificed.

Thank you for your time

Natalie Risner and Bailey Smith

November 12, 2015

Hi John,

I live near the oil fields on Price Canyon Road, and I have a concern about their increased large-truck/equipment traffic recently. In the past couple years there have been several times that I have been run off the road because their large drilling equipment uses the small country road for travel rather than Price Canyon road. Also, in the past month I have been woken multiple times by a series of their large trucks driving by our home around 6 a.m. and around midnight. We are not zoned for industrial enterprises. This has become unsafe and a nuisance.

Also, I'm not sure why they are running their trucks at those odd hours of the night. Is it merely for convenience or are they trying to hide something?

I would like for them to use Price Canyon Road instead of the smaller county country roads.

I appreciate any help you can provide.

Sincerely,  
Natalie Beller

---

November 13, 2014

Hi Natalie,

As you know, the Price Canyon/Arroyo Grande oil field is an active oil field. The operator, Freeport-McMoRan, is currently drilling wells as a part of their approved Phase IV development, and will be through most of 2015. Drilling activities for each well, while relatively short, requires drilling activities 24 hours a day for a number of consecutive days. While most of the oil field can be accessed from Price Canyon Road, there are a few wells that need to use Ormonde Road. However, all trucks needing to use Ormonde Road should be coming from Price Canyon Road. If my description does not fit well into your situation, please provide more details about your location or other specifics and I can then ask the operator what is going on, confirm that the activity is from their operation, and if they are using roads outside of their approved haul route to stop doing it.

John McKenzie  
Senior Environmental Planner  
SLO County Planning & Building Department

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November 13, 2014

Dear John,

Thank you for the prompt reply. Yes, your description does not fit my experience.

- 1) There are big trucks and big equipment using Old Oak Park Road for transport, frequently.
- 2) I have also noticed that vehicles that aren't street-legal are being driven on Ormonde road. Vehicles such as forklifts. I imagine that they are doing this for convenience and possibly save some time, however, it is pretty dangerous to be driving or riding a bike around a curve into the one-lane subway into a forklift with the forks

aimed right at driver. I would appreciate if you addressed some of these safety issues with those employed at the Price Canyon Freeport-McMoRan oil field. Again, I know that it is probably inconvenient for the oil workers, but I am sure they would feel pretty bad if they injured or killed somebody for some of the unsafe practices. I want them to continue to operate their business, however I also want feel safe driving on the roads around my home. Also, those big kranes driving down Ormonde Road, there's got to be a safer way to transport them - maybe have them drive under a certain speed limit, or have a truck in front with a big sign reading "wide load" or "Slow traffic".

I did not know that they are supposed to use Ormonde for fields that access on the south side of the creek. Were the Ormonde Road residents included in the discussion for the expanded project?

Sincerely,  
Natalie

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November 17, 2014

Hi Natalie,

In reviewing the EIR that was prepared for the currently approved phase (Phase IV), I was mistaken on the allowed haul route. The EIR assumed that Ormonde Road would receive some additional use by this project. Traffic was not limited to using just Price Canyon Road.

However, on the type of vehicle, I will be following up with the applicant to make sure that any vehicles on the public roads, such as fork lifts, are street legal. Also, I will be checking on their practices when move extra long or wide vehicles/equipment and that proper safety precautions must always be taken.

On noticing (so far we have only had a public scoping meeting) for the proposed Phase V, we went out 1,000 feet from the edge of the properties that are a part of the oil field operation. We also noticed those on the Interested Party list for this project. When we release the Draft EIR (and future noticing), we will add those properties along Ormonde and Old Oak Park Roads to Highway 101.

John McKenzie  
Senior Environmental Planner  
SLO County Planning & Building Department

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July 16, 2015

Hi John,

I hope you are well. I haven't heard from you in more than 6 months, and now there is considerable activity at the oil fields again. For example, large trucks driving up and down Old Oak Park Road all day, 5 days/week. Also, there is digging in the street on Ormonde road near the oil fields.

Is this phase V of the oil field development?

I do not recall receiving notification.

Thank you and have a good day,  
Natalie

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July 16, 2015

Dear Ms. Beller,

The proposed Phase V oil field expansion project has not yet been taken to hearing nor the environmental impact report completed. You are still on the Phase V mailing list and when the Draft EIR is completed and any public meetings scheduled you will be notified.

The pipeline currently being installed is a project being done by Phillips 66 to create a direct flow of crude oil from the Freeport-McMoran oil field to their refining facility on the Nipomo Mesa. Once installed, this pipeline will be used to take the existing oil field production of crude oil, and is not dependent on the approval of the proposed Phase V expansion. A Minor Use Permit (DRC2012-00101) was approved for this project on November 7, 2014. Over 350 properties along the route were notified prior to this hearing.

The 5.6 mile pipeline is expected to take between 4-6 months to complete. 3.9 miles will be along Ormonde and Old Oak Park Roads. While the temporary staging area of this project will be within the Freeport-McMoran holdings, it is being done and overseen by Phillips 66. If you would like to speak directly with a Phillips 66 representative, please contact Brien Vierra (805/235-7943) The construction work will be between 7 am to 7 pm on weekdays and 8 am and 5 pm on weekends. The County's land use ordinance exempts temporary construction noise during these periods of the day, The applicant is working with our Public Works Department to make sure proper traffic safety measures are in place during the construction phase.

Please let me know if you have additional questions or concerns.

John McKenzie  
Senior Planner  
SLO County Planning & Building Department

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September 3, 2015

Dear John,  
Thank you for adding me to the notification lists. I received the email and the postcard for the hearings this month regarding the oil field expansion.  
Some of my neighbors did not receive them. What do they need to do to get added? Contact you?

Thanks and have a great day!  
Natalie

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September 4, 2015

Dear Ms. Beller,

The hearing on 9/10 does not include any expansion of the oil field. Only one condition is being changed to allow an additional 3 years to drill wells that were already approved as a part of the Phase IV development. As you have indicated, even though this upcoming hearing relates to Phase IV, I did use the 'interested parties' for Phase V as a part of the notification of the hearing. Anyone who did not get notified should email me with their name and address and they will be added for future county public meetings. As you may know the state is holding their own 'public information' meeting on 9/21 relating to a change in the oil formation (aquifer) exemption boundaries to better reflect existing oil field operations.

Let me know if you have further questions.

John McKenzie  
Senior Planner  
SLO County Planning & Building Department

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September 14, 2015

Dear John,

Great presentation last Thursday. It was nice to meet you in person.

Can you give me the email and phone number of the public works person working on the Phillips 66 oil pipeline project to ensure traffic safety?

I've stopped traveling the stretch of road that they have been working on due to safety concerns. However, now the pipeline trenching has started on my road - Old Oak Park Road.

I have been getting concerning reports from my husband, neighbors, and friends and family that have traveled Ormonde in the past month.

I emailed you previously in July about the lack of a path of travel on that construction site. This is a big problem for emergency vehicles that need to get through. There is still a 20 minute delay sign posted, and some times the delay is 5 minutes, but other times it's 20. Emergency responders have a goal of reaching the patient within 5 minutes, not 25 minutes.

Also, when vehicles are cleared to travel through the construction site, several people have almost been hit by heavy machinery.

As I have mentioned before, health and safety are very important to me. I would like for these concerns to be addressed, and I would like to meet with you and the public works representative to discuss further measures that will keep my family, and the other canyon residents, safe as the pipeline comes down Old Oak Park Road.

What days and times do you and public works have available to meet next week? My best days are Wednesday and Thursday, however, I can make arrangements to meet on other days.

Thank you and take care,  
Natalie

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September 14, 2015

Hi Natalie,

It was a pleasure meeting you as well.

Please contact Glenn Marshall in Public Works relating to your traffic safety concerns. He can be reached at 781-1596. If after discussing these issues with him on the phone, you still feel there is a need to meet in person, I do have a couple of times available on Weds or Thurs (I would need to coordinate with Glenn to see how well our availability matches). Let me know.

John McKenzie  
Senior Planner  
SLO County Planning & Building Department

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October 5, 2015

Hi John and Glenn,

Thanks again for meeting with me in person last week. I am just following up on what we discussed in that meeting.

1. John, were you able to determine what government agency inspects the pipeline integrity?
2. Glenn, were you able to follow up about the heavy equipment operators backing into traffic?

I spoke with Paul Saunders and he states that there is no inspecting engineer on site, however, they do have a third party agency inspecting the pipeline welding. He referred me to his boss, Ralph Knipper, for more information on the third party inspectors. I am hoping to meet with them this week. Do either of you have any interest in joining the meeting?

Thanks and have a great week!

Natalie

---

October 5, 2015

Hi Natalie,

I also enjoyed our meeting last week.

With regards to your questions of me I offer the following responses:

On the agency that checks on the integrity of the pipeline construction, it will be the State Fire Marshall. Once the pipeline is completed, they will require a hydrostatic test to insure integrity. Furthermore, it is my understanding that a periodic pipeline check (every 3 to 5 years) for corrosion will be done via a smart 'pig'.

With regards to the Engineer of Record, I believe it is Brien Vierra with FJ Technologies (his email is <[fjtechbcv@msn.com](mailto:fjtechbcv@msn.com)>)

I have a fairly busy schedule this week and do not think I would be able to fit in a site visit. From a regulatory perspective, it also sounds like your meeting would be mostly on issues ultimately overseen by the State Fire Marshall and not the County.

John McKenzie  
Senior Planner  
SLO County Planning & Building Department

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October 5, 2015

Natalie

I have not followed up with Jim but will today. Is it regular ongoing occurrence where the equipment drivers extend their equipment into the travel way or have they improved? Please keep me informed as to your meeting schedule, our encroachment inspector may choose to be present.

Thanks,

-Glenn Marshall

County of San Luis Obispo Department of Public Works

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October 6, 2015

Hi Glenn,

Yes, the heavy equipment drivers were regularly driving into traffic as of last week. I spoke with Paul Saunders about this safety issue again last Thursday. He said he would discuss this issue in the Friday morning safety meeting.

As of this week, I have not heard any complaints, or witnessed any equipment driving into traffic.

I will keep you posted on a meeting with the inspectors. I spoke with Paul's boss, Ralph Knipper, yesterday. He said that he would work on arranging a meeting with the inspectors. A meeting this week is unlikely. Ralph and I will talk again on Friday.

Thank you John, for the information on the state fire marshal. Do you have this person's contact information?

Thank you both for your quick responses. I'm amazed and greatly appreciate your quick reply to my emails.

Have a great rest of your week,  
Natalie

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October 6, 2015

Natalie

Great, thanks for your diligence and please keep Jim and I informed of any

traffic safety concerns.

-Glenn Marshall

County of San Luis Obispo Department of Public Works

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October 9, 2015

Happy Friday John and Glenn,

I'll start with the good news. I got to meet Paul, and he continues to be kind and courteous to work with. I got an impromptu meeting with the 3rd party inspectors for welding and trenching/backfill/asphalt, Tom and Mark. They are both pleasant and professional to work with.

The news I regret to inform you of, is the above ground traffic control and safety continues to be a problem.

1) The flag man on the north end of the job is not continually manning his post. There is nobody present where the road goes to one lane. He 100-200 yards down the road. Not watching traffic. No direction is given to cars and thus they are driving into the construction zone into oncoming traffic. I notified Paul Saunders, and within an hour he came to inspect. He noticed the same thing and talked with the flag man.

2) Doty brothers truck was driving double-wide into oncoming traffic. Two complaints of this.

3) Construction continued until almost 8 p.m. on Thursday night. I believe this is in violation of their permit. Are our local contractors fined for this kind of violation?

4) The night that they worked until 8 p.m. it was so dark drivers couldn't see the flag man on the south end. He had no light source, not even a flashlight. (My husband ended up bringing him a flashlight because he felt the situation was so dangerous for the flag man, the drivers, and the men still working in the construction zone.)

5) John, this one is for you. You asked me to keep an eye on soil issues or oak tree issues, I think this falls into that category. The workers are sweeping debris into the drainage ditch on the west side of the road. When it rains, the water flows into that ditch and down the road to reduce flooding. Now it is being filled in with construction debris. It will not be able to drain water down the hill. This drainage ditch is maintained by the county.

One of the 3rd party inspectors I spoke with said that he has been very disappointed with the unprofessional behavior of this construction crew. Here's another example of what we are dealing with on Old Oak Park road currently, one of the construction guys shouted at the end of the day around, "What do I care, I don't have to drive on these road plates. I'm out of here." Then, 3 hours later, the workers are still out there fixing the road plates because they had to re-do them.

After several weeks working with Paul Saunders on these safety issues, I'm feeling like the issues are not decreasing. They are just changing. There needs to be more close supervision on the construction site. Too many of the workers are unable/unwilling to perform their job even to a satisfactory level. I am requesting that you require Phillips 66 and/or Doty Brothers to staff the job with more workers and more supervision. I would like to know the plan on how to make this job safer and more professional. I will follow up on this next week.

Sincerely,  
Natalie Beller

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October 13, 2015

Natalie:

Responding to questions #1,2 &4: I have sent your concerns (as Public Works concerns) on to the permittee and requested they review their traffic control operations for permit compliance with the MUTCD, implement the necessary changes (if any), then respond back to Public Works with their proposed corrective measures.

Responding to question #3: In accordance with County Code 22.10.120 (Noise Standards), Section A.4, noise sources associated with construction must not occur weekdays before 7:00 am or after 9:00 pm; and weekends before 8:00 am or after 5:00 pm.

In addition, I have been in direct contact with Phillips 66 staff regarding these concerns; and will be asking our encroachment inspector to field review their traffic control operations on Wednesday then provide me his observations.

Finally, please understand that the County cannot control private construction workers attitudes nor direct methods of work. However, we can (and do) enforce our encroachment permit conditions and provisions.

I will follow up with you after my investigation. Thank you,

-Glenn Marshall

County of San Luis Obispo Department of Public Works

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October 13, 2015

Hi Natalie,

On #3, the land use permit does not include any restrictions for construction work, which would then default to our Land Use Ordinance provision on construction hours which are as follows: M-F - 7 am to 9 pm; Sat.-Sun. - 8 am to 5 pm

On #5, I checked with Glenn on this and he said that Jim Handeland would take a look at this when he goes out to the project site tomorrow.

John McKenzie  
Senior Planner

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October 13, 2015

Thank you John, Glenn and Jim for your time and consideration.  
Jim, if you'd like to meet while you are on Old Oak Park Road. I can show you where the problem spots are in the county-maintained drainage ditch. I'm at 1620 Old Oak Park Road. I will be in and out throughout the day. My phone number is [\(805\) 458-0220](tel:8054580220).  
-Natalie

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October 16, 2015

Natalie:

Below I am summarizing the county's and Phillips 66 response to your latest concerns:

1. Phillips 66 confirmed the flagman was in fact, NOT at his post. A meeting with the site foreman and the flagger was conducted. We have been assured that he would not be leaving his post again.
2. Phillips 66 is not sure when this complaint was made, but have had conversations with Doty supervision, about drivers checking with the flagmen before entering the single lane road from the work areas.
3. I previously addressed permitted construction hours, see below.
4. Phillips 66 and Doty will be addressing why their flagmen and the site is not better lighted during dusk and evening hours and will not allow another similar situation to happen.
5. Phillips 66 is responsible for maintaining their work zone in a clean and orderly manner. Jim will continue observe the site cleanliness as well as other aspects of the permitted work.

To date Phillips 66 has been responsive in addressing the county's concerns. It is our practice to work cooperatively, rather than punitively, with all permittees to ensure encroachment work is performed in a safe and timely manner and with the least disruption to the public. We will continue to monitor the site and work closely with Phillips 66, as we do with all our active encroachment permits, to ensure the contractors are following all permit conditions including providing traffic control in accordance with our standards. Construction zone safety is a paramount concern and stressed as such to each permittee.

Please feel free to contact either Jim or I with any questions or concerns.

-Glenn

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October 16, 2015

Thank you Glenn for the follow-up message. I, and many of the other neighbors, appreciate your commitment to keeping this construction zone as safe as possible. It is a tight area to work in, and there are many high-power, heavy equipment that can easily cause great harm.

The workers already ran over my neighbor's dog and killed it, we don't want any more casualties.

Per our telephone conversation, will you please continue to address the traffic control, especially when it is closed to one lane. On Wednesday October, 14. Twice I exited my driveway and there was nobody to monitor traffic control in the near vicinity. I was met head-on with a bulldozer and two trucks. Did you already address this issue with P66?

Lastly, please address the traffic delays. On the same day, Wednesday, October 14, I had to wait 25 minutes to enter my driveway.

Thank you and have a great weekend,  
Natalie

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October 19, 2015

Natalie:

Per our conversation the MUTCD only recommends flag persons or signs at high volume driveways during lane closures, not residential driveways. Phillips 66 have had conversations with Doty supervision, about drivers **checking with the flagmen before entering the single lane road from the work areas.** I will cc them this response to ensure compliance.

-Glenn

Dear Commissioners,

I am disappointed with the way that Freeport is managing their construction projects. A year ago I contacted our county planner John McKenzie about some safety concerns that had lingered for man months, for example, I had been run off the road twice by massive drills and cranes driving down the small country road.

Now, a year later, I am still experiencing major safety concerns with Freeport's joint project with Phillips 66 on the oil pipeline. Freeport requested that Phillips 66 build the pipeline, and Freeport gives Phillips 66 office space on the oil field property, according to Phillip 66 representatives Paul Saunders, chief inspector, and Kristin Frinfrock.

I have yet to speak with any workers on the job that have read, or been informed of the permit guidelines and the negative declaration for this project. The third party inspectors stated that they were unaware of the negative declaration. Some of the safety concerns on this project were a lack of a path of travel for emergency vehicles, heavy equipment and trucks driving head-on into oncoming traffic, and filling in a drainage ditch with construction debris.

I attached my email correspondence with project manager John McKenzie and public works chief Glenn Marshall.

Most of the safety issues that I notified the county of have been addressed, and resolved, however, new ones keep arising. Does the county want to approve more construction for a company that forgets to provide a path of travel for emergency vehicles?

Please deny this extension.

Sincerely,  
Natalie Beller  
Arroyo Grande, CA  
(805) 458-0220



Hearing date October 22 "Freeport McMoRan Extension"

Natalie Beller

to:

rhedges, Planning

10/21/2015 12:19 AM

Hide Details

From: Natalie Beller <natalie.beller@gmail.com>

To: rhedges@co.slo.ca.us, Planning@co.slo.ca.us

Dear Commissioners,

There are a couple of things that are big news since the last EIR on this project.

1. In 2011 the federal EPA issued a notice to DOGGR to stop issuing aquifer exemptions, including the one used by the Price Canyon oil field. All of the exemptions that they issued for all of California's aquifers are illegal, including Arroyo Grande Oil Field. The exemptions are in direct violation of the Safe Drinking Water Act. Freeport is continuing to pollute our aquifer. Please do not approve a project extension for an operation that is operating illegally and polluting our water.

2. California dropped into a state of emergency with the worsening drought. Not only will the phase IV extension use more water, but it will also produce more wastewater, which threatens poisoning nearby aquifers and the water basin flowing through Price Canyon.

Aaron Katona from the local division of the state water board provided me with the following description of the wastewater disposal. You can reach him at [\(805\) 542-4649](tel:8055424649).

Freeport is pulling toxic brine water out of the earth. For every one barrel of oil, 10 barrels of brine water is extracted with it.

The toxic brine water goes to two places:

1. The water is injected into the aquifer to prevent subsidence.
2. The water purification plant, which is like a giant reverse osmosis (RO) filter. Then from the purification plant the water goes to three places,
  - Turned to steam and reinjected into the earth to pull out more oil and brine water
  - Poured into Pismo Creek.
  - Becomes concentrated brine, "super brine".

The super concentrate brine from the RO is injected back into the ground, under the aquifer (approximately 400-1,000 feet under), which pollutes the aquifer, and can no longer be used as a drinking water source. (This is why their underground injection program is in violation of the Safe Drinking Water Act).

Brine spills are more damaging than oil spills. We have the technology to clean oil spills, but not brine spills. Ranches in Bakersfield have been turned to wastelands, and an entire town in Montana had to be shipped drinking water because theirs was ruined by a brine spill. Those are just two examples of the more-than 4,000 spill that occurred in the U.S. in just one year; just 2014. The Tribune ran an Associate Press Article about brine water spills last month. Here's the link. <http://bigstory.ap.org/article/39786bbf509e412a9feb9b58a6534a36/drilling-boom-brings-rising-number-harmful-waste-spills>

Please consider choosing the safety of our natural resources, such as water, over further harvesting of our other natural resource, such as oil. Deny this extension.

Sincerely,  
Natalie Beller  
Arroyo Grande, CA  
(805) 458-0220



Oil fields are dangerous and a health hazard with too many unknowns and variables. Please do not continue to put our health of our beautiful central coast at risk. Another very interesting article that is on the DOGGR website that covers the Aquifer and wastewater injection issue extensively I just wanted to share the information in case it has not been seen. I understand they are not using Hydraulic Fracturing but they are injected produced waste water into the ground and steam injection has its own list of possible hazards so this article is still relevant. There needs to be more monitoring and safety procedures put into place. Noise and Air pollution is a real factor and the neighbors need to have someone watching out of us.

[http://ccst.us/projects/hydraulic\\_fracturing\\_public/SB4.php](http://ccst.us/projects/hydraulic_fracturing_public/SB4.php) (Link has the below link on this page. This is on DOGGR website lots of information here)

“6.4.1.5. Injection Into Usable Aquifers In June 2014, the U.S. EPA expressed concerns to the state of California regarding an EPA evaluation of injection wells in California used to dispose of oil-field waste, primarily recovered fluids and produced water that returns to the wellhead along with oil (U.S. EPA, 2014c). The EPA found that some wells inappropriately allowed injection of waste 407 Chapter 6: Potential Impacts of Well Stimulation on Human Health in California into protected groundwater. The California Division of Oil, Gas and Geothermal Resources (DOGGR) has shut down some of these wells and is reviewing many more for possible violations. Some chemicals that are used in well-stimulation operations are known to be toxic, but more than 50% of reported well stimulation chemicals in California have unknown environmental and health profiles. Some of the naturally occurring constituents in produced water are also toxic. Introduction of recovered fluids or produced water into protected groundwater presents a risk to the health of human populations that may drink, bathe, or irrigate with these water supplies.” (taken from link below)

<http://ccst.us/publications/2015/vol-II-chapter-6.pdf>

Natalie Risner  
115 Tolosa Place  
San Luis Obispo, CA 93401



Fw: FM O&G Response to Public Comments -- Arroyo Grande Oil Field  
Phase 4 CUP Extension Request

John McKenzie to: Ramona Hedges

10/21/2015 04:43 PM

Cc: Nicole Retana

Hi Ramona,

Please send to the Commissioner's and post to the web. Thank you.

John McKenzie  
Senior Planner  
SLO County Planning & Building Department  
976 Osos St. - Rm 200, San Luis Obispo, CA 93408  
805/781-5452  
FAX 805/788-2413  
w .sloplanning.org



----- Forwarded by John McKenzie/Planning/COSLO on 10/21/2015 04:41 PM -----

From: "Martini, John" <John\_Martini@fmi.com>  
To: John McKenzie/Planning/COSLO <jdmckenzie@co.slo.ca.us>  
Cc: "smcmasters@co.slo.ca.us" <smcmasters@co.slo.ca.us>, "Rose, David" <David\_Rose@fmi.com>, "Vowell, Patrick" <Patrick\_Vowell@fmi.com>  
Date: 10/21/2015 04:28 PM  
Subject: FM O&G Response to Public Comments -- Arroyo Grande Oil Field Phase 4 CUP Extension Request

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John –

Thank you for providing me a copy of the last minute correspondence that was submitted to the Planning Commission in opposition to FM O&G's application for a 3 year extension of the Phase 4 CUP for the Arroyo Grande Oil Field. I appreciate the opportunity to review the assertions that have been submitted so that we can be prepared for a thorough discussion with the Commission. Our response to the general comments/concerns follows below. Please provide this email to the Clerk for inclusion in the case file and distribution to the Commissioners in accordance with standard Department practice. I will be prepared to elaborate on these comments during my testimony should any of the commissioners have questions:

**Assertion:** In 2011 the federal EPA issued a notice to DOGGR to stop issuing aquifer exemptions. All of the exemptions issued by the state are illegal.

**Response:** The assertion is not accurate and the commenter is unfortunately mistaken in their understanding of the aquifer exemption issue. The USEPA has directed the State of CA to update the existing aquifer exemption boundaries for all the oil fields in the state as necessary, including the boundaries for the AG Oil Field. The existing boundaries were established in 1983 and were based on

the known geologic outlines of the oil reservoir at the time. The state is developing a proposal for USEPA review that would update the boundaries to align with current known geologic structure of the oil reservoir. The application is based on validated data which indicates there are no useable groundwater resources within the confines of the oil reservoir structure. Since 1983 the state had issued permits for new injection wells that fell outside the original exemption boundaries. The USEPA directed the state to delay issuing any further injection permits for areas outside the existing boundaries until such time as applications are submitted that contain geologic data validating the boundaries should be updated. County staff has proposed a condition that would preclude FM O&G from installing any Phase 4 wells outside of the existing exemption boundary until the USEPA's review of the state's application to update the boundaries is complete. The three year extension being requested gives the state and federal government adequate time to work through the application review process. FM O&G believes the condition proposed by staff is a reasonable mitigation.

**Assertion:** CA is in an emergency drought condition. Approval of the Phase 4 extension will exacerbate drought conditions.

**Response:** The commenter is unfortunately misinformed as to the nature of operations at the AG Oil Field. Approval of the CUP extension requested by FM O&G will not increase or alter water use at the field. All of the field's production operations are supplied by water that has been withdrawn from the oil reservoir as part of the oil production process and treated. The minimal amount of fresh water that is currently used is supplied by private wells owned by FM O&G that are situated outside of the confines of the oil reservoir. The use of this water is limited to landscaping irrigation and office use.

**Assertion:** The water reclamation facility (WRF) in use at the facility is generating "super toxic" brine that is being reinjected in to the aquifer and threatens its future use as a drinking water source. The operation also increases chances for a brine related spill.

**Response:** As documented in the state's draft aquifer exemption application, the oil reservoir at the AG Oil Field is a confined geologic structure. Oil is naturally comingled with groundwater throughout the entirety of the geologic structure. There are no useable water resources within the confines of the oil reservoir that could be adversely impacted by the reintroduction of the concentrated brine.

It should be noted that the WRF is capable of generating nearly 20,000 barrels/day of water that provides benefits to fish habitat in Pismo Creek, more than double the amount of fluid that could potentially be generated as concentrated brine from the operation. The water that is being added to the creek assists in recharging the Santa Maria Groundwater Basin which is downstream of the discharge point. The recharge assists in deterring seawater intrusion in the area and provides added reliability to the municipal reliance on groundwater withdrawals in the area.

There have been no occurrences of brine waste spills (i.e. reject water) since installation of the WRF in March 2013. All of the lines that transport the brine waste within the field perimeter were newly installed as part of the WRF project.

**Assertion:** FM O&G is not closely monitoring the construction activity associated with installation of the P66 pipeline.

**Response:** FM O&G does not have the legal authority to manage the activities of P 66 and Doty Brothers Construction off of FM O&G Property. The pipeline installation is a P66 project, not FM O&G's. While on FM O&G property the construction crews are under FM O&G's watch and worksites are inspected daily for compliance by FM O&G personnel. P66 is using a piece of FM O&G property for their office and employee parking. FM O&G offered the use of the property to help reduce the traffic on Old Oak Park Road, as construction workers are using Price Canyon Road to come to and leave work .

**Assertion:** The extension should be denied until such time as the USEPA has completed its review of the aquifer exemption application the state is preparing. A number of the wells that remain to be developed under Phase 4 fall outside the current aquifer exemption boundary on the Arroyo Grande oil field.

**Response:** County staff has proposed a condition that would preclude FM O&G from installing any Phase 4 wells outside of the existing [exempted area](#) until the USEPA's review of the state's application to update the boundaries is complete. The three year extension being requested gives the state and federal government adequate time to work through the application review process . FM O&G believes the condition proposed by staff is a reasonable mitigation.

**Assertion:** Cyclic steam wells have a high rate of well failure . Extension of the Phase 4 CUP will increase the risk associated with well failures.

**Response:** The technical SPE paper concerning well failure rates that was submitted for the record is not applicable to the type of cyclic steam operations conducted at the AG Oil Field . The case study in the paper and the data put forward by the commenter refers to high rate/high pressure cyclic steaming in diatomite formations. These types of operations differ significantly from the type of operation that is conducted at the AG Oil Field where steam is injected at lower pressures . The types of operations discussed in the SPE paper require the application of steam every 6-8 weeks. In contrast steaming operations at AG are conducted no more than 1 – 4 times per year. There is no history of thermal well failures at the AG Oil Field. Furthermore, DOGGR maintains strict regulatory criteria for testing and monitoring well integrity.

**Assertion:** The FEIR did not consider the expansion of the aquifer exemption boundary and how it could impact property values.

**Response:** The commenter is unfortunately misinformed about the nature of the aquifer exemption process. The proposal being developed by the state is to update the exemption boundaries so that they align with the defined geologic boundary of the oil reservoir . The FEIR covered development within the geologic boundary of the oil reservoir . The aquifer exemption boundary revision will not "expand" operations at the oil field. The oil field boundaries as understood and analyzed at the time the FEIR was adopted will not be altered or expanded based on the aquifer exemption review process. The oil field has been in existence for 100 years and predates nearly all of the surrounding development. Updating the aquifer exemption boundaries will not impact surrounding property values any more or less than approval of the FEIR and CUP for Phase 4 did.

**Assertion:** The FEIR did not consider new drilling techniques.

**Response:** The type of drilling and completion operations being conducted at the oil field are

consistent with the type of operations described in the FEIR . There are no “new” drilling techniques being utilized at the AG Oil Field. There is no hydraulic fracturing or SB 4 well stimulation activity that will take place as part of the CUP extension .

**Assertion:** Approval of the Phase 4 extension will increase long term abandonment risks.

**Response:** FM O&G maintains a statewide bond as required by state law . State law contains extensive requirements related to abandonment obligations. FM O&G is in full compliance with these regulations.

**Assertion:** The injection operations will increase the risk of earthquakes.

**Response:** The information that was submitted to the record concerning increased risk of induced seismicity is not applicable to the type of injection operations that are conducted at the AG Oil Field . The information that was submitted relates to the scientific examination of seismic activity attributable to deep wastewater injection in formations where there is no offsetting production (i.e. pressure relief). In the case of the AG field, all of the injection is occurring within same reservoir that the oil is being produced from. A review of both the USGS data base dating back to 1923, and the CA Department of Conservation database which includes data from 1850 – 1930 validates that there have not been elevated levels of seismic activity attributable to the types of routine injection operations that have occurred at the oil field for decades. The types of injection operations that would be conducted under the CUP extension are consistent with historic operations .

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