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BEFORE THE CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD FOR THE CENTRAL VALLEY REGION

IN THE MATTER OF:

CONSIDERATION OF ADMINISTRATIVE
CIVIL LIABILITY,

BREITBURN OPERATING, L.P.

EVIDENCE LIST

EVIDENCE LIST

1. Well analysis for Dow Chanslor H-6B
2. Well analysis for Dow Chanslor I-4
3. Well analysis for Dow Chanslor J-5A
4. Well analysis for Dow Chanslor JJJ-5
5. Well analysis for Dow Chanslor L-5A
6. Well analysis for Dow Chanslor L-12
7. State Water Resources Control Board Letter Dated May 2, 2014 [Groundwater Monitoring Plan Exemption]
8. Waterstone Environmental, Inc. Correspondence Dated April 21, 2014 [Exemption Report]

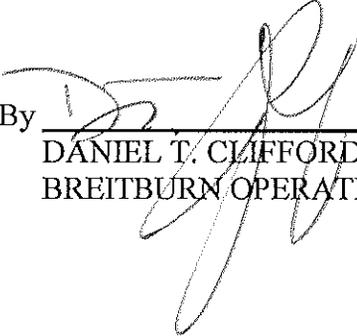
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EVIDENCE BY REFERENCE

- 1. California Water Code
- 2. State Water Resources Control Board, Enforcement Policy
- 3. Prosecution Team Evidence List

DATED: April 20, 2015

CLIFFORD & BROWN

By 

DANIEL T. CLIFFORD, ESQ.
BREITBURN OPERATING L.P.

EXHIBIT "1"

Drilling and Completion Synopsis

Well: H-6B		Operation	Day	Date	Comment
Drilling	1		5/30/2013	MIRU drilling rig, drill to 400'.	
Drilling	2		4/19/2013	Drill surface hole section to 1409'. Run and cement 9-5/8" casing. Cement with 623 ft3, circulated 10 bbls cement to surface.	
Drilling	3		4/20/2013	Install wellhead, NU BOPE, drill production hole section to 2549', TD.	
Drilling	4		4/21/2013	Log well, run and cement 7" production casing, cement with 488 ft3, circulated 10 bbls to surface. RR.	
Completion	1		6/18/2013	Install BOPE.	
	2		6/1/2013	MIRU wireline unit. Perforate 2384' - 2394', 2224' - 2218', 2164' - 2170'. Rig down wireline unit.	
	3		6/27/2013	Frac interval, stage 1. MIRU wireline unit, ran in hole with bridge plug #1 and set 2109', bridge plug failed. Ran in hole with bridge plug #2 and set at 2090'. Perforate 2054' - 2044', 2044' - 2034'. Frac interval, stage 2. Ran in hole with bridge plug #3 and set at 2003'. Perforate 1962' - 1972', 1884' - 1894'. Frac interval, stage 3. Ran in hole with bridge plug #4 and set at 1848', perfoate 1802' - 1812', 1708' - 1712'. Frac interval, stage 4. Ran in hole with bridge plug #5 and set at 1669', bridge plug failed. Ran in hole with bridge plug #6 and set at 1650, bridge plug failed. Ran in hole with bridge plug #7 and set at 1640'. Perforated 1630' - 1620', 1620' - 1610'. Frac interval, stage 5. MIRU work over unit.	
	4		6/28/2013	Frac interval, stage 4.	
	5		6/29/2013	Bled down well, 0 psi. Run in hole, tag at 1590', clean out and tag bridge plug at 1642', recovered bridge plug #7 Run in hole, tag at 1767', recovered bridge plug #6 Run in hole, tag at 1770', clean out and tag bridge plug at 1781', recovered bridge plug #5 Rig down work over unit.	
	6		7/2/2013	MIRU workover unit, bled well. Run in hole, tag at 1800', clean out and tag bridge plug at 1839', recovered bridge plug #4 Run in hole, tag at 1810', clean out and tag bridge plug at 2003", recovered bridge plug #3	
	7		7/3/2013	Run in hole, tag at 2012', clean out and tag bridge plug at 2091', recovered bridge plug #2 Run in hole, tag at 2095', clean out and tag bridge plug at 2109', recovered bridge plug #1 Put well on pump, rig down work over unit.	

EXHIBIT

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator BrellBurn Operating, LP (B6131) Field Belridge, South County Kern
Well "Dow Chanslor" H-6B Sec. 12 T. 28S R. 20E M.D. B.&M.
A.P.I. No. 030-50883 Name Brad Pierce Title Agent
(Person submitting report) (President, Secretary, or Agent)
Date 10/9/2013
(Month, day, year)
Signature _____
Address 515 S. Flower St., Suite 4800 Los Angeles, CA 90071 Telephone Number (213) 225-5900

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, balling tests, and initial production data.

Date	Permit No. P413-3285	(Note: All depths refer to KB, which is 14' above mat.)
	Drill Well	
5/30/2013	Moved in and rigged up Kenal 4 on Dow Chanslor H-6B. Start operations on May 30, 2013 at 19:00 hours. Nipped up 13-5/8" 3m Class II with 6" diverter. Off-loaded and measured 9-5/9" casing. Mixed new spud mud. Made up 12-1/4" MT bit. Picked up and scribed directional tools Function tested diverter; good. Directional drilled 12-1/4" hole from 54' to 400'. Spudded on May 31, 2013 at 01:00 hours.	
5/31/2013	Directional drilled 12-1/4" hole from 400' to 593'. Circulated hole clean at 593'. Pulled out of hole, wiping from 593' to 200', 15K max drag. Reamed from 200' to 400'. Ran in hole from 400' to 593'. Circulated bottom up at 593'. Directional drilled 12-1/4" hole from 593' to 1409'. Circulated hole clean at 1409'. Wiped hole clean from 1409' to 90', 15K max drag. Ran in hole from 90' to 1409'. Circulated and conditioned hole for casing at 1409'. Pulled out of hole from 1409'. Stand back drill collars and laid down mud motor. Held safety meeting with tong hand and crew. Rigged up tongs and casing equipment. Picked up and ran 38 joints 9-5/8" 36# J-55 LTC casing to 1409'. Held safety meeting with cementers and crew. Rigged up cement head and lines. Circulated and reciprocated casing at 1409'. Tested cement pump and lines to 2000 psi. Pumped 200 bbls fresh water followed by 111 bbls (623 ft3) 273 sacks Type III Poz 50/50 at 12.5 ppg. Displaced with 102 bbls fresh water, bumped plug with 900 psi. Float held. Ten (10) barrels of cement to surface. Cement in place on June 1, 2013 at 05:50 hours.	
6/1/2013	Flushed BOP and surface lines. Rig down cementers. Nipped up BOP. Lifted BOP, cut 9-5/8" casing. Laid down cut off, removed BOP from sub-base. Cut and dress 9-5/8". Welded and installed 11" 3M x 9-5/8" SOW. Tested welds to 2000 psi for 5 minutes; good. Nipped up 11" 3M Class II BOP and choke manifold. Made up 8-3/4" PDC bit. Made up and scribed directional tools. Ran in hole to 1358'. Made up weep hole sub. Tested BOP and choke valves to 1000 psi; good. Laid down weep hole sub. Drilled out cement, insert and shoe from 1358' to 1409'. Directional drilled 8-3/4" hole from 1409' to 2549'. Circulated hole clean at 2549'. Wiped hole from 2549' to 1409', no excessive drag. Serviced rig. Ran in hole from 1409' to 2549'. Circulated hole clean at 2549'. Pulled out of hole from 2549'. Laid down drill pipe and HWDP. Laid down drill collars and directional tools. Held safety meeting with loggers. Rigged up loggers. Ran in hole with Triple Combo+Dielectric.	
6/2/2013	Ran in hole with E-Logs Triple Combo+Dielectric to 2546', wire line depth. Log up from 2536' to 1409'. Rigged down loggers. Held safety meeting with tong hand and crew. Rigged up tongs and casing equipment. Picked up and ran 59 joints of 7" 26# J-55 LTC casing to 2543'. Rigged up cement head and lines. Circulated and reciprocated casing at 2543'. Held safety meeting with cementers and crew. Tested cement pump and lines to 3000 psi. Pumped 20 bbls fresh water followed by 87 bbls, 488 ft3, 188 sacks of Type III 50/50 Poz slurry at 12.0 ppg. Displaced with 94 bbls filtered lease water. Bumped plug with 1150 psi and checked float; holding. Ten (10) barrels cement to surface. Cement in place on June 2, 2013 at 14:25 hours. Flush BOP and surface lines. Rigged down cement head and lines. Lower casing slips and set with 25K over pull. Nipped down BOP. Lifted BOP and cut 7" casing. Remove BOP from sub base. Cut and dressed 7" casing. Nipped up 7-1/16" tubing head. Tested head seals to 2000 psi for 5 minutes; good. Secured well. Released rig to Dow Chanslor K-13i on June 2, 2013 at 18:00 hours.	
	Completion	
6/18/2013	Nipped up BOPE and frac spool. Rigged up test truck. Tested BOPE and casing to 2500 psi. Held for 5 minutes.	
6/19/2013	Moved in and rigged up wire line truck and pressure control. Ran in hole CCL and Gamma Ray tools to estimated depth. Pulled out of hole logging. Correlate to open hole log. Picked up 8'-4" slick gun. Ran in hole to tie in depth, and perforated 6 SPF 60 degree phasing from 2384'-2392'. Pulled out hole and downed gun. Picked up 6'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 2224'-2218'. Pulled out hole and downed gun. Picked up 6'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 2164'-2170'. Pulled out hole and downed gun. Rigged down and moved out.	

6/27/2013

Frac Stage 1. Held pre-job safety meeting. Tested lines to 3500 psi. Pop-off set at 2500 psi. Kickouts staggered from 2000 psi. Frac Stage 1 to completion as designed. Pre-Frac ISIP = N/A.

ISIP = 607 psi

FG = 0.704 psi/ft.

Avg. Rate = 32 bpm

Avg. Press = 598 psi

Total Propp = 249,503 lbs 20/40, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Moved in, rigged up wire line truck and pressure control.

Picked up CCL and bridge plug. Ran in hole to tie in depth, set bridge plug at 2109'. Pulled out of hole. Tested bridge plug; failed.

Picked up CCL and bridge plug. Ran in hole to tie in depth, set bridge plug at 2090'. Pulled out of hole. Tested bridge plug at 1500 psi; held.

Picked up 10'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 2054'-2044'. Pulled out hole and downed gun.

Picked up 10'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 2044'-2034'. Pulled out hole and downed gun.

Frac Stage 2. Held pre-job safety meeting. Tested lines to 3500 psi. Pop-off set at 2500 psi. Kickouts staggered from 2000 psi. Frac Stage 2 to completion as designed. Pre-Frac ISIP = 537 psi, FG = 0.697 psi/ft.

ISIP = 539 psi

FG = 0.695 psi/ft.

Avg. Rate = 32 bpm

Avg. Press = 602 psi

Total Propp = 120,816 lbs 20/40, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Picked up CCL and bridge plug. Ran in hole to tie in depth; CCL failed. Pulled out of hole.

Picked up new CCL and bridge plug. Ran in hole to tie in depth, set bridge plug at 2003'. Pulled out of hole. Test bridge plug to 1500 psi; held.

Picked up 10'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 1962'-1972'. Pulled out hole and downed gun.

Picked up 10'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 1884'-1894'. Pulled out hole and downed gun.

Frac Stage 3. Held pre-job safety meeting. Tested lines to 3500 psi. Pop-off set at 2500 psi. Kickouts staggered from 2000 psi. Frac Stage 3 to completion as designed. Pre-Frac ISIP = N/A.

ISIP = 537 psi

FG = 0.712 psi/ft.

Avg. Rate = 30 bpm

Avg. Press = 598 psi

Total Propp = 162,563 lbs 10/40, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Picked up CCL and bridge plug. Ran in hole to tie in depth, set bridge plug at 1848'. Pulled out of hole. Test bridge plug to 1500 psi; held.

Picked up 10'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 1802'-1812'. Pulled out hole and downed gun.

Picked up 4'-4" slick gun. Ran in hole to tie in depth, and perforated 3 SPF 120 degree phasing from 1708'-1712'. Pulled out hole and downed gun.

Secured well until morning.

6/28/2013

Frac Stage 4. Held pre-job safety meeting. Tested lines to 3500 psi. Pop-off set at 2500 psi. Kickouts staggered from 2000 psi. Frac Stage 4 to completion as designed. Pre-Frac ISIP = 372 psi, FG = 0.651 psi/ft.

ISIP = 392 psi

FG = 0.656 psi/ft.

Avg. Rate = 31 bpm

Avg. Press = 598 psi

Total Propp = 268,710 lbs 10/40, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Picked up CCL and bridge plug. Ran in hole to tie in depth. Set bridge plug at 1669'. Pulled out of hole and tested plug; failed.

Picked up CCL and bridge plug. Ran in hole to tie in depth. Set bridge plug at 1650'. Pulled out of hole and tested plug; failed.

Picked up CCL and bridge plug. Ran in hole to tie in depth. Set bridge plug at 1640'. Pulled out of hole and tested plug to 1500 psi; held.

Picked up CCL and 10'-4" slick gun and perforated 3 SPF 120 degree phasing from 1630'-1620'. Pulled out of hole and downed gun.

Picked up CCL and 10'-4" slick gun and perforated 3 SPF 120 degree phasing from 1620'-1610'. Pulled out of hole and downed gun.

Frac Stage 5. Held pre-job safety meeting. Tested lines to 3500 psi. Pop-off set at 2500 psi. Kickouts staggered from 2000 psi. Frac Stage 5 to completion as designed. Pre-Frac ISIP = 351.5 psi, FG = 0.651 psi/ft.

ISIP = 360 psi

FG = 0.655 psi/ft.

Avg. Rate = 31 bpm

Avg. Press = 421psi

Total Propp = 174,369 lbs 10/40, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Shut down in two steps. Rigged down and moved out.

6/28/2013

Arrived at location and held safety meeting. Waited to rig up steel fracking and setting bridge plug. Rigged out wire line. Move in and rigged up, put out guy wires and screwed in anchors. Rigged up working floor and loaded tools. Shut down until morning.

- 6/29/2013 Arrived at location and held safety meeting. Serviced rig. Bled down well, 0 psi. Tally tubing, unloaded tools, picked up tubing and made up RH. Ran in hole with tubing and tagged at 1590'. Circulated out sand to bridge plug at 1642'. Pulled out of hole with tubing and laid down bridge plug. Made up RH. Ran in hole with tubing and tagged at 1767'. Pulled out of hole with tubing and bridge plug #2. Made up RH. Ran in hole with tubing and tagged sand at 1770'. Cleaned to bridge plug at 1781'. Pulled out of hole with tubing and bridge plug #3. Made up RH. Ran in hole with tubing and stopped at 1650'. Closed well in, loaded tools, rigged out working floor, took down guys, rigged down, and moved off.
- 7/2/2013 Arrived at location and held safety meeting. Moved in and rigged up, put out guy and anchors. Rigged up work floor, unloaded tools, bled well. Continued to run in with tubing and tagged sand at 1800'. Cleaned out to bridge plug #4 at 1839'. Pulled out of hole with tubing and made up RH. Ran in hole with tubing and tagged sand at 1810'. Cleaned out to 2003', bridge plug #5. Let well clean up. Until morning.
- 7/3/2013 Arrived at location and held safety meeting. Unloaded tools. Continued in hole. Tagged sand at 2012'. Cleaned out to bridge plug #6 at 2091'. Pulled out of hole with tubing and laid down bridge plug. Made up RH. Ran in hole with tubing and tagged at 2095'. Got a hold of bridge plug #7. Pulled out of hole with tubing and laid down bridge plug. Made up 2-1/2" TL shoe. Ran in hole with tubing and tagged sand at 2360'. Cleaned well to 2409'. Laid down 5 joints. Tubing tall at 2295'. Landed donut. Rigged out work floor and stripped BOP off. Put pro tree on. Ran in hole with rods, re-spaced well, clamped off, took down guy wires, and unscrewed anchors. Loaded tools and rigged down. Moved out and cleaned location. Job complete.

OG103
(6/97/GSR/5
M)

Printed on
recycled paper.

SUBMIT IN DUPLICATE

Ex.

Frac stage 1

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi, Kickouts staggered from 2300 - 2500 psi.

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 698 psi

Tot. Propp = 249,135 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

MIRU HLS Lubricator and equipment

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off

RIH with CCL and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

down with 30 bbls remaining.

MIRU wire line truck and pressure control

PU CCL and BP RIH tie in depth set BP at 2109 POOH test BP FAILED

PU CCL and BP RIH tie in depth set BP at 2090 POOH test BP 1500 psi HELD

PU 10'-4" slick gun RIH tie in depth perf 3 spf 120 deg phasing from 2054-2044 POOH down gun

PU 10'-4" slick gun RIH tie in depth perf 3 spf 120 deg phasing from 2044-2034 POOH down gun

Frac stage 2

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi, Kickouts staggered from 2000 psi.

Frac stage 2 to completion as designed. Pre-Frac ISIP = 537 psi, FG = 0.697 psi/ft

ISIP = 536 psi

FG = 0.695 psi/ft

Avg Rate = 32 bpm

Avg Press = 602 psi

Tot. Propp = 120,816 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

PU CCL and BP RIH tie in depth CCL failed POOH

PU NEW CCL and BP RIH tie in depth set BP at 2003 POOH test BP 1500 psi HELD

PU 10'-4" slick gun RIH tie in depth perf 3 spf 120 deg phasing from 1962-1972 POOH down gun

PU 10'-4" slick gun RIH tie in depth perf 3 spf 120 deg phasing from 1884-1894 POOH down gun

Frac stage 3

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi, Kickouts staggered from 2000 psi.

Frac stage 3 to completion as designed. Pre-Frac ISIP = N/A

ISIP = 537 psi

FG = 0.712 psi/ft

Avg Rate = 30 bpm

Avg Press = 598 psi

Tot. Propp = 162,563 lbs 10/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

PU CCL and BP RIH tie in depth set BP at 1848 POOH test BP 1500 psi HELD

PU 10'-4" slick gun RIH tie in depth perf 3 spf 120 deg phasing from 1802-1812 POOH down gun

PU 4'-4" slick gun RIH tie in depth perf 3 spf 120 deg phasing from 1708-1712 POOH down gun

Secure Well til AM

FOREMAN :	D.Weese	ENGINEER:	Jaison Thomas
Unit Make & Size			
Gear Box Size			

Ex.

Frac stage 1

Held P.JSM. Test lines to 3500 psi. Pop-off set at 2500 psi. Kickouts staggered from 2300 - 2500 psi.

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

ISIP = 723 psi

FG = 0.73 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 698 psi

Tot. Propp = 249,135 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Cell flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

MIRU HLS Lubricator and equipment

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off

RIH with CCI and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

Ex

Frac stage 1

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi, Kickouts staggered from 2300 - 2500 psi.

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

ISIP = 723 psi

FG = 0.73 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 608 psi

Tot. Propp = 249,135 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

MIRU HLS Lubricator and equipment

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off

RIH with CCJ and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

Avg Rate = 31 bpm

Avg Press = 589 psi

Tot. Propp = 268,710 lbs 10/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

PU CCL and BP RIH tie in depth set BP at 1669 POOH test plug FAILED

PU CCL and BP RIH tie in depth set BP at 1650 POOH test plug FAILED

PU CCL and BP RIH tie in depth set BP at 1640 POOH test plug 1500# HELD

PU CCL and 10'-4" slick gun and perf 3 spf 120 deg phasing from 1630-1620 POOH down gun

PU CCL and 10'-4" slick gun and perf 3 spf 120 deg phasing from 1620-1610 POOH down gun

Frac stage 5

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi, Kickouts staggered from 2000 psi.

Frac stage 4 to completion as designed. Pre-Frac ISIP = 351.5 psi, FG = 0.651 psi/ft

ISIP = 360 psi

FG = 0.655 psi/ft

Avg Rate = 31 bpm

Avg Press = 421 psi

Tot. Propp = 174,369 lbs 10/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining. Shut down in two steps.

RDMO

FOREMAN :	D.Weese	ENGINEER:	Jalson Thomas
Unit Make & Size			
Gear Box Size			

Ex.

Frac stage 1

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi, Kickouts staggered from 2300 - 2500 psi.

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

ISIP = 723 psi

FG = 0.73 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 698 psi

Tot. Propp = 249,135 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

MIRU HLS Lubricator and equipment

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off

RIH with CCI and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

Ex.

Frac stage 1

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi, Kickouts staggered from 2300 - 2500 psi.

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

ISIP = 723 psi

FG = 0.73 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 698 psi

Tot. Propp = 249,135 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on Inline densometer and begin step-down with 30 bbls remaining.

MIRU.HLS Lubricator and equipment

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off

RIH with CCL and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

Ex.

Frac stage 1

Held PJSM. Test lines to 3500 psi. Pop-off set at 2500 psi. Kickouts staggered from 2300 - 2500 psi.
Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

ISIP = 723 psi

FG = 0.73 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 698 psi

Tot. Propp = 249,135 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

MIRU HLS Lubricator and equipment

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off

RIH with CCI and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

WELL NAME	RIG NO.	Service Report Num	COMPANY	LEASE	DATE		
H-6B	RIVAL	30645	Breitburn	Dow Chanslor	7/3/2013		
VENDORS NAME		DAILY COST	FAILURE :				
Est RIG AND CREW		\$ 4,435.00	Day7				
Cir. Pump		\$ 1,000.00	TODAYS COST		TODAYS HOURS		
Cir. Head		\$ 550.00	\$ 86,785.00				
BOP/FRACKHEAD		\$ 4,700.00	PREVIOUS COST				
2 7/8 tbg		\$ 15,862.50	\$333,796.60		PREVIOUS HOURS		
3/4 " rods		\$ 4,287.50	CUMULATIVE COST				
Insert pump		\$ 2,700.00	\$419,581.50		CUMULATIVE HOURS		
Pumping unit and electrical		\$ 52,250.00	0				
Est. DAILY TOTAL		\$ 85,785.00					
TAGGED FILL 2472	KB	14	CASING : 7' 26#		LINER SIZE		
RECOVERED :	TD		PBTD: 2587		LINER DEPTHS :		
BAILER:			PERFS :		LINER SIZE		
SCRAPER SIZE :	STOPPED :		LINER DEPTHS				
PUMP MAKE PULLED:			PUMP SIZE :				
PUMP MAKE RAN : Midas			PUMP SIZE : 21/2x2x36x16				
TUBING DETAIL : Well Head Flange: 6-900			ROD DETAIL :				
Description	NUMBER	LENGTH	DEPTH	SIZE	AMOUNT	GRADE	GUIDES
KB		14		1 1/8x30			
Dount		0.85		3/4 rods	68	D	Moleded gd
27/8 tubs 8rd		2248.63		Kbars	100	D	Moleded gd
21/2 shoe t/l		0.65		stab. Sub	4-Apr	D	Moleded gd
27/8 taile jt		31.15					
Total		2295.28					
Pump Intake	2295.28						
Summary FRAC ST 4 & 5				Start	6:00:00 AM	HH:MM	Stop
Arrived @ Location Safty Meeting							6:30pm

unloaded tools cont. in hole taged at sand @2012 cleaned to B/P #6 2091 POOHW/tubs lad B/P down made up R/H RIHW/tubs taged @ 2095 got holed of # 7 B/P POOHW/tubs lad B/P down made up 21/2 T/L shoe RIHW/tubs taged sand @ 2360 cleand well to 2409 layded 5 jts down TUB tail @ 2295 landed dount riged out work floor & striped BOP off put pro tree on RIHW/rods respaced well clamped off took guy wiers down & unscrwed anchors loaed tools rig down move clean location
JOB COMPLET

FOREMAN :	D.Weese	ENGINEER:	Jalson Thomas
Unit Make & Size			
Gear Box Size			

Ex.

Frac stage 1

Held PJSK. Test lines to 3600 psi. Pop-off set at 2500 psi. Kickouts staggered from 2300 - 2600 psi.

Frac stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft

ISIP = 723 psi

FG = 0.73 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 698 psi

Tot. Propp = 249,135 lbs 20/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

MIRU HLS Lubricator and equipment

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off

RIH with CCl and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

EXHIBIT "2"

Drilling and Completion Synopsis

Operation	Well: I-4	Day	Date	Comment
Drilling	1	4/26/2013	MIRU drilling rig, drill surface hole section to 1120'.	
	2	4/27/2013	Run and cement 9-5/8" casing. Cement with 750 ft3, circulated 38 bbbls to surface.	
	3	4/28/2013	Drill production hole section to 2640'.	
	4	4/29/2013	Run and cement 7" casing. Cement with 550 ft3, circulated 12 bbbls to surface. RR	
Completion	1	5/24/2013	MIRU wireline unit, perforate 2506'-2514', 2390' - 2396', 2346' - 2352'.	
	2	6/2/2013	Frac interval, stage 1. MIRU wireline unit, ran in hole with bridge plug #1 and set at 2301', perforate 2236' - 2256'. Frac interval, stage 2. MIRU wireline unit, ran in hole with bridge plug #2 and set at 2208'. Perforate 2170' - 2180', 2108' - 2118'. Frac interval, stage 3. MIRU wireline unit, ran in hole with bridge plug #3 and set at 2056'. Perforate 2012' - 2022', 1914' - 1918'. Frac interval, stage 4.	
	3	6/10/2013	MIRU wireline unit, ran in hole with bridge plug #4 and set at 1857'. Perforate 1780' - 1800'. Frac interval, stage 5.	
	4	6/11/2013	MIRU workover unit.	
	5	6/12/2013	Bleed well, oil coming from tubing and backside, ran in hole, tag at 1816', clean out and and tag bridge plug 1873', recovered bridge plug #4. Ran in hole, tag at 1995', clean out and and tag bridge plug at 2125', recovered bridge plug #3. Ran in hole, tag at 2078', clean out and and tag bridge plug at 2182', recovered bridge plug #2.	
	6	6/13/2013	Bleed well, had to pump down to kill well. Ran in hole, tag at 2172', clean out and and tag bridge plug at 2262', recovered bridge plug #1. Some confusion here, tag sand and recovered plug #5 at 2308'. Ran in hole tag fill at 2501, circulated clean. Let well clean up.	
	7	6/14/2013	Bleed well, put well on pump, rig down work over unit.	

EXHIBIT 2

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator BreitBurn Operating, LP (B6131) Field Belridge, South County Kern
Well "Dow Chanslor" I-4 Sec. 12 T. 28S R. 20E M.D. B.&M.
A.P.I. No. 030-50420 Name Brad Pierce Title Agent
(Person submitting report) (President, Secretary, or Agent)
Date 10/9/2013
(Month, day, year) Signature _____
Address 515 S. Flower St., Suite 4800 Los Angeles, CA 90071 Telephone Number (213) 225-5900

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Date	Permit No. P413-1937	(Note: All depths refer to KB, which is 14' above mat.)
	<u>Drill Well</u>	
4/26/2013	Move in and rig up Kenai Rig #4 on I-4. Spot sub structure, mud pumps, pit, catwalk and center rig over the hole. Raised and pin mast. Begin to rig up the rig floor. Set in and weld on 13-5/8" 3M starting flange with 6" diverter outlet. Set in shakers and mud cleaner. Held safety meeting. Scope and pin mast. Rig up Kenai rig #4. Perform rig up check (good). Start rig time at 10:30 hrs. Set in and nipple up 13-5/8" 3M annular with 6" diverter. Function test same (good). Mix mud. Load pipe racks with casing. Removed thread protectors and strap same. Pick up and made up Scientific directional tools 7/8 motor (0.16 rev/gal) with MWD and 12-1/4" MT bit dressed with 3-16 and 1 - 12 jets (TFA: 0.69). Spud well at 18:30 hrs on 4/26/2013. Directional drill and survey from 54' to 935' - 600 GPM, 167 RPM, 15K WOB (93'/hr average ROP). Circulate hole clean for wiper. Wipe hole to directional tools (10/15K over spot drag). Rest free. Trip in hole to bottom. No fill or obstructions. Directional drill and survey from 935' to 1,120' - 600 GPM, 167 RPM, 15K WOB (93'/hr average ROP).	
4/27/2013	Directional drill and survey from 1,120' to 1,521' - 600 GPM, 167 RPM, 15K WOB (114'/hr average ROP). Circulate hole clean. Wipe hole to 1,000'. Trip in hole to bottom. No obstructions. Circulate hole clean. Wipe hole to 150'. 10 to 15K spot drag from 300' to 200'. Trip in hole to 1,000'. Circulate hole clean. Pull out of hole. Lay down stabs and rack back collars. Held safety meeting with B&L tongs. Rig up and run 40 joints of 9-5/8" casing with shoe at 1,521'. Circulate hole clean for cement job. Held safety meeting with Halco cementers. Spot and rig up equipment. Wait on Halliburton. Pressure test pumps and lines to 2,500 psi (good). Pumped 20 bbls of water ahead, followed by 134 bbls (750 cu. ft., 329 sacks) of 12.5 ppg EconoCem cement with a 2.28 yield and a 12.36 water requirement at 5 bpm. Stopped pumping. Dropped wiper plug and displaced with 114 bbls of mud. Bumped plug 500 psi over. Checked floats (good). Cement in place at 21:30 hrs. Full returns and pipe reciprocation. 38 bbls of cement to surface. Rig down cementers. Drain and wash stack. Slack off. Back out and laid down landing joint. Nipple down 13-5/8" BOPE and diverter system. Cut off and remove starter head. Dress stump (no fallback). Installed 11" 3M SOW wellhead with welders. Test weld to 1,000 psi (good). Nipple up 11" 3M Class II BOPE with choke. Function tested same (good). Service rig and adjust breaks. Gather, strap, pick up, and made up 6-3/4" directional tools with 7/8 motor (0.28 rev/gal) set at 1.5 deg and 8-3/4" PDC bit dressed with 6/12's jets. Scribe in and orientate tools. Trip in hole at 700' at report time for BOPE test and drill out.	
4/28/2013	Continue to trip in hole. Tag cement on top of insert at 1,480'. Filled pipe. Pressure test casing to 1,000 psi for 20 minutes (good). Pressure test BOPE, choke, and all valves to 1,000 psi (good). Drill out insert and shoe track, and new hole from 1,483' to 1,531'. Mud motor failed. Circulate hole clean. Pulled out of hole. Identified bad motor and laid down same. Picked up "back up" motor and trip in hole to bottom. No obstructions. Directional drill and survey vertical well from 1,531' to 2,640' (TD). 10 - 15 WOB, 230 RPM's at the bit, 579 GPM, 2,100 psi (116'/hr average ROP). Circulate hole clean for wiper. Wipe hole to shoe. Free. Trip in hole to bottom. No obstructions or fill. Circulate hole clean and condition mud for log run. Rig up to lay down drill pipe. Pulled out of hole and laid down drill pipe for log run. Break bit. Laid down directional tools. Held safety meeting with Halco loggers. Traverse in hole with log tools at 1,600' at report time.	
4/29/2013	Continue to traverse in hole with log tools to bottom. Log well. 1 - run Triple combo, loggers depth at 2,643' (max temp at 110 deg). Rig down loggers. Held safety meeting with B&L casing crew. Rig up to run casing. Run 61 joints of 7", 26#, LT&C casing with shoe set at 2,640'. Install cement head. Rig down tongs. Held safety meeting with Halco cementers. Circulate hole clean and condition mud for cement job. Pressure test pumps and lines to 2,000 psi (good). Pumped 20 bbls of water ahead, followed by 98 bbls (550 cu. ft., 203 sacks) of 12.0 ppg EconoCem cement with a 2.71 yield and a 15.24 water requirement at 5 bpm. Stopped pumping. Dropped wiper plug and displaced with 92 bbls of filtered lease water. Bumped plug 500 psi over, 1206 psi final pressure. Checked floats (good). Cement in place at 13:30 hrs. Full returns and pipe reciprocation during job. 12 bbls of cement to surface. Drop and set casing slips with 80K string weight 20k over. Energized and set slip seals. Test against slips with 500 psi (good). Nipple down BOPE stack. Lift stack. Made rough cut on 7" casing. Set out cut off and BOPE stack. Dress stump. Set in and installed 11" x 7-1/16", 3M tubing head. Test tubing head to 2,000 psi for 10 minutes (good). Secure well. Released rig at 17:00 hrs. Tear out rig #4 and prepare for move. SDFN.	
	<u>Completion</u>	
5/24/2013	Day 1. MIRU HLS lubricator and equipment. RIH with CCL, Gamma Ray and correlate to open hole log. POOH PU CCL and drift tool (6.1). RIH to estimated depth. POOH down drift tool. RIH with CCL and 6'-4" slick gun, tie in depth and perforate 6 SPF 60 degree phasing from 2506'-2514'. POOH down gun. RIH with CCL and 6'-4" slick gun, tie in depth and perforate 3 SPF 120 degree phasing from 2390'-2396'. POOH down gun. RIH with CCL and 6'-4" slick gun, tie in depth and perforate 3 SPF, 120 degree phasing from 2346'-2352'. POOH down gun and tools. Secure well. RDMO.	

6/2/2013

Day 2. Frac Stage 1. Held safety meeting. Test lines to 3500 psi. Pop-off set at 2500 psi. Kick-outs staggered from 2300-2500 psi. Frac Stage 1 to completion as designed. Pre-Frac ISIP = 540 psi, FG = 0.655 psi/ft.
ISIP = 723 psi
FG = 0.73 psi/ft
Avg. Rate = 31.4 bpm
Avg. Press = 698 psi
Total Propp = 249,135 lbs. 20/40, with 4-5% Sandwedge tail-in.
Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.
MIRU HLS lubricator and equipment. RIH with BP and CCL, tie in to depth, set plug at 2301'. POOH test plug. Slight leak off. RIH with CCL and 20'-4" slick guns, tie in to depth and perforate 3 SPF from 2236'-2256'. POOH down gun.

Frac Stage 2. Held safety meeting. Test line to 3500 psi. Frac Stage 2 to completion design.

ISIP = 638 psi
FG = 0.72 psi/ft
Avg. Rate = 32 bpm
Avg. Press = 609 psi
Total Propp = 116,342 lbs. 20/40, with 4-5% Sandwedge tail-in.
Flush to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with BP and CCL, tie in to depth, set plug at 2208'. POOH test plug. Held. RIH with CCL and 10'-4" slick guns, tie to depth and perforate 3 SPF from 2170'-2180'. POOH down gun. RIH with CCL and 10'-4" slick guns, tie to depth and perforate 3 SPF from 2108'-2118'. POOH down gun.

Frac Stage 3. Held safety meeting. Test lines to 3500 psi. Frac Stage 3 to completion design. Pre-Frac ISIP = 396, FG = 0.618 psi/ft.

ISIP = 538 psi
FG = 0.684 psi/ft.
Avg. Rate = 32 bpm
Avg. Press = 363 psi
Total Propp = 161,179 lbs. 10/40, with 4-5% Sandwedge tail-in. Flushed to top less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with BP and CCL, tie in to depth and attempt to set BP at 2065'. Fall. POOH down BP, PU another BP. RIH and set. Tested. Held. RIH with CCL and 10'-4" slick guns, tie to depth and perforate 3 SPF from 2012'-2022'. POOH down gun. RIH with CCL and 4'-4" slick guns, tie to depth and perforate 3 SPF from 1914'-1918'. POOH down gun.

Frac Stage 4. Held Stage 4. Held safety meeting. Test lines to 3500 psi. Frac stage 3 to completion as designed. Pumped all the sand but did not pump the 10 ppg stage, stayed at 8 ppg. Pressure was increasing at 40 psi per minute. Pumped 8 ppg sandwedge and flushed.

ISIP = 623 psi
FG = 0.75 psi/ft.
Avg. Rate = 32 bpm
Avg. Press = 609 psi
Total Propp = 259,550 lbs. 10/40, with 4-5% sandwedge tail-in. Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

6/10/2013

Day 3. Frac Stage 5. MIRU HLS. RIH with BP and CCL, tie in to depth, set plug at 1857'. POOH test plug. RIH with CCL and 20'-4" slick guns, tie to depth and perforate 3 SPF from 1780'-1800'. POOH LD gun. RDMO HLE. Wait on frac crew.

Frac Stage 5. Held safety meeting. Test line to 3500 psi. Pop-off set at 2500 psi. Kick-outs staggered from 2300-2500 psi. Frac Stage 5 to completion as designed. Pre-frac ISIP = 537 psi, FG = 0.733 psi/ft.

ISIP = 556 psi
FG = 0.744 psi/ft.
Avg. Rate = 312 bpm
Avg. Press = 579 psi
Total Propp = 195,757 lbs. 10/40, with 4-5% Sandwedge tail-in.
Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Halliburton done for the day. They will return in the morning to pump three stages on JJJ-5. Fishing operations are on-going on the JJJ-5.

6/11/2013

Day 4. Arrive at location and held safety meeting. Bled well, 0 psi. MIRU, put out guy wires, screwed in anchors, rig up work floor, tally tubing. Unloaded tools, made up retrieving head. RIH with tubing, tagged sand at 1816'. Rig-up pump ready for morning. Closed well in, loaded tools until morning.

6/12/2013

Day 5. Arrived at location and held safety meeting. Service rig. Bleed well, had to psi ? to kill well. Oil coming from tubing and backside. RIH with tubing and tagged sand at 1816'. Circulated to plug at 1873' and came out of hole with plug. RIH with tubing and tagged sand at 1995'. Circulated to plug at 2125' and came out of hole with plug. Ran in hole, tagged sand at 2078'. Circulated to plug #3 at 2182'. Came out of hole. Ran in with kill string. Closed well in until morning.

6/13/2013

Day 6. Arrived at location and held safety meeting. Service rig. Bleed well. Had to pump down to kill well. RIH with tubing and tagged at 2172'. Circulate to plug #4 at 2262'. Came out of hole with plug. RIH with tubing. Tagged sand at 2308'. Number 5 plug, come out hole with plug. RIH with 1 joint and shoe and 83 joints. Tagged sand at 2501'. Circulate to 2537'. Let well clean up. Came out hole. 8 joints landed. Donut at 2313'. Closed well in until morning.

6/14/2013

Day 7. Arrive at location and held safety meeting. Service rig. Bleed well, loaded out equipment. Removed work floor and frac. @ BOP. Ran pump and rods, installed stuffing box. Re-spaced well and loaded out equipment. Removed guys and anchors. Rigged down, moved rig, cleaned location. Finished job. Complete.

RIH with BP and CCL tie in to depth set plug at 2301' POOH test plug Slight leak off
 RIH with CCI and 20'-4" slick guns tie to depth and perf 3 SPF from 2236-2256 POOH down gun

Frac stage 2

Held PJSM. Test lines to 3500 psi.
 Frac stage 2 to completion as designed.
 ISIP = 638 psi
 FG = 0.72 psi/ft
 Avg Rate = 32 bpm
 Avg Press = 609 psi
 Tot. Propp = 116,342 lbs 20/40, with 4-5% Sandwedge tail-in
 Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with BP and CCL tie in to depth set plug at 2208' POOH test plug HELD
 RIH with CCI and 10'-4" slick guns tie to depth and perf 3 SPF from 2170-2180 POOH down gun
 RIH with CCI and 10'-4" slick guns tie to depth and perf 3 SPF from 2108-2118 POOH down gun

Frac stage 3

Held PJSM. Test lines to 3500 psi.
 Frac stage 3 to completion as designed. Pre-Frac ISIP = 396 psi, FG = 0.618 psi/ft
 ISIP = 538 psi
 FG = 0.684 psi/ft
 Avg Rate = 32 bpm
 Avg Press = 363 psi
 Tot. Propp = 161,179 lbs 10/40, with 4-5% Sandwedge tail-in
 Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with BP and CCL tie in to depth and attempt to set BP at 2065' Fall POOH DN BP PU another BP RIH and set Tested HELD
 RIH with CCI and 10'-4" slick guns tie to depth and perf 3 SPF from 2012-2022 POOH down gun
 RIH with CCI and 4'-4" slick guns tie to depth and perf 3 SPF from 1914-1918 POOH down gun

Frac stage 4

Held PJSM. Test lines to 3500 psi.
 Frac stage 3 to completion as designed. Pumped all the sand but did not pump the 10 ppg stage, stayed at 8 ppg. Pressure was increasing at 40 psi per minute. Pumped 8 ppg sand wedge and flushed.
 ISIP = 623 psi
 FG = 0.75 psi/ft
 Avg Rate = 32 bpm
 Avg Press = 609 psi
 Tot. Propp = 259,550 lbs 10/40, with 4-5% Sandwedge tail-in
 Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

End Report Time: 00:11

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

Avg Press = 579 psi

Tot. Propp = 195,757 lbs 10/40, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Halliburton done for the day, they will return in the morning to pump three stages on JJJ-5.

Fishing operations are on-going on the JJJ-5.

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

BreitBurn

WELL CREW REPORTS

Wed

WELL NAME 1-4		RIG NO. Diamond	Service Report Num 3241	COMPANY Breitburn	LEASE Dow Chanslor	DATE 6/12/2013	
VENDORS NAME			DAILY COST	FAILURE :			
Est RIG AND CREW			\$ 4,450.00	Day 6			
Cir. Pump			\$ 1,200.00	TODAYS COST		TODAYS HOURS	
			\$ 900.00	\$ 6,700.00			
Cir. Head			\$ 150.00	PREVIOUS COST			
				\$345,492.92		PREVIOUS HOURS	
				CUMULATIVE COST			
				\$352,192.92		CUMULATIVE HOURS	
				0			
Est. DAILY TOTAL			\$ 6,700.00				
TAGGED FILL 2472		KB	14	CASING : 7' 26#		LINER SIZE	
RECOVERED :		TD		PBTD: 2587		LINER DEPTHS :	
BAILER:				PERFS :		LINER SIZE	
SCRAPER SIZE :		STOPPED :				LINER DEPTHS	
PUMP MAKE PULLED:				PUMP SIZE :			
PUMP MAKE RAN :				PUMP SIZE :			
TUBING DETAIL : Well Head Flange: 6-900				ROD DETAIL :			
Description	NUMBER	LENGTH	DEPTH	SIZE	AMOUNT	GRADE	GUIDES
KB		14					
Donut		0.75					
27/8 tub		2298.12					
shoe		0.69					
27/8 tail jt		31.39					
Summary				Start	6:00am	Stop	6:30pm

Arrived @ locatlon Safty Meeting ②
 ser rig bleed well had to pump down to kill well RIHW/ tub. Tagged @ 2172 cir. To plug #4 @ 2262 came out hole with plug RIHW/tub. Tagged sand @ 2308 #5 plug come out hole with plug RIHW/ 1 jt. &SHOE & 83 JT. TAGGED SAND @ 2501 CIR. TO 2537 LET WELL CLEAN UP CAME OUT HOLE 8 JT LANDED DONUT @ 2313 CLOSED WELL IN UNTILL AM

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

EXHIBIT "3"

Drilling and Completion Synopsis

Well: J-5A			
Operation	Day	Date	Comment
Drilling	1	4/22/2013	MIRU drilling rig, drill surface hole section to 1030'.
Drilling	2	4/23/2013	Drill surface hole section to 1525', TD. Run and cement 9-5/8" casing.
Drilling	3	4/3/2013	Cement with 570 ft3, circulated 5 bbls cement to surface. Install wellhead, NU BOPE, drill production hole section to 2280', TD.
Drilling	4	4/5/2013	Log well, run and cement 7" production casing, cement with 544 ft3, circulated 10 bbls cement to surface. RR.
Completion	1	5/22/2013	MIRU wireline unit. Perforate 2510' - 2518', 2348' - 2345', 2310' - 2318'. Rig down wireline unit.
	2	6/1/2013	Frac interval, stage 1. MIRU wireline unit, ran in hole with bridge plug #1 and set at 2265', perforate 2200' - 2220'. Perforate 1900' - 1920' Frac interval, stage 2. MIRU wireline unit, ran in hole with bridge plug #2 and set 2167'. Perforate 2123' - 2142', 2054' - 2064'. Frac interval, stage 3. Ran in hole with bridge plug #3, and set at 2012, plug failed. Perforate 1960' - 1970', 1870' - 1874'. Frac interval, stage 4. Ran in hole with bridge plug #4 and set at 1813', perforate 1736' - 1756'. Frac interval, stage 5.
	4	6/5/2013	MIRU work over unit, run in hole, tag at 1748', clean out and tag bridge plug at 1842' recovered bridge plug #4. Run in hole, tag at 11933', clean out and tag bridge plug at 2036', recover bridge plug #3.
	5	6/10/2013	Bled well, Well flowing. Killed well. Run in hole, tag at 2036', clean out and tag bridge plug at 2184', recovered bridge plug #2. Run in hole, tag at 2390', clean out and tag bridge plug at 2472', recovered bridge plug #1.
	7	6/11/2013	Bled well to 0 psi. Put well on pump, rig down work over unit.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator BrollBurn Operating, LP (B6131) Field Belridge, South County Kern
Well "Dow Chanslor" J-5A Sec. 12 T. 28S R. 20E M.D. B.&M.
A.P.I. No. 030-50421 Name Brad Pierce Title Agent
(Person submitting report) (President, Secretary, or Agent)
Date 10/9/2013
(Month, day, year) Signature _____
Address 515 S. Flower St., Suite 4800 Los Angeles, CA 90071 Telephone Number (213) 225-5900

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Date	Permit No. P413-1938	(Note: All depths refer to KB, which is 14' above mat.)
	<u>Drill Well</u>	
4/22/2013	Move in and rig up Kenai rig #4 on well J-5A. Spot sub structure, mud pumps, pit, catwalk, and center rig over the hole. Raised and pin mast. Begin to rig up the rig floor. Set in and weld on 13-5/8" 3M starting flange with 6" diverter outlet. Set in shakers and mud cleaner. Held safety meeting. Scope and pin mast. Rig up Kenai Rig #4. Perform rig up check (good). Start rig time at 12:00 hrs. Set in and nipple up 13-5/8" 3M annular with 6" diverter. Function tested same -- good. Mix mud. Load pipe racks with casing. Removed thread protectors and strap same. Picked up and made up Scientific directional tools 7/8 motor (0.16 rev/gal) with MWD and 12-1/4" MT bit dressed with 3-16 and 1 - 12 jets (TFA: 0.69). Spud well at 18:00 hrs on 4/22/2013. Directional drill and survey from 54' to 1,030' - 600 GPM, 167 RPM, 15K WOB (81/hr average ROP).	
4/23/2013	Directional drill and survey from 1,030' to surface hole TD at 1,525' - 600 GPM, 176 RPM, 10K WOB (76/hr average ROP). Circulate hole clean and condition mud for wiper. Pull out of hole and laid down directional tools. Pulled 20 - 40 k over spot drag from 800' to 200'. Gather and strap tools for clean out run. Made up BHA with 12-1/4" bit and 12" stabs spaced at 30' and 60'. Trip in hole to 200'. Ream out of derrick from 200' to 600'. Heavy clay. Well having large clay chunks. Circulating with 2 pumps at 550 GPM at 1,500 psi. Circulate hole clean. Trip in hole to bottom 1,525'. No obstructions or fill. Circulate hole clean and condition mud for casing. Pull out of hole. Laid down stabs and rack back collars. Held safety meeting with B&L tongs. Rig up and run 40 joints of 9-5/8" casing with shoe at 1,525'. Circulate hole clean for cement job. Held safety meeting with Halco cementers. Spot and rig up equipment for the job.	
4/24/2013	Circulate and condition mud. Rig up cementers. Pressure test pumps and lines to 3,600 psi (good). Pumped 20 bbls of water ahead, followed by 134 bbls (735 cu. ft., 322 sacks) of 12.5 ppg EconoCem cement with a 2.28 yield and a 12.36 water requirement at 5 bpm. Stopped pumping. Dropped wiper plug and displaced with 115 bbls of mud. Bumped plug at 500 psi over. Checked floats (good). Cement in place at 07:30 hrs. Full returns and pipe reciprocation. 40 bbls of cement to surface. Rig down cementers. Drain and wash stack. Slack off. Back out and laid down landing joint. Nipple down 13-5/8" BOPE and diverter system. Cut off and removed starter head. Dress stump (2' of fallback). Installed 11" 3M SOW wellhead with welders. Test weld to 1,000 psi (good). Nipple up 11" 3M Class II BOPE with choke. Function tested same (good). Gather, strap, pick up and made up 6-3/4" directional tools with 7/8 motor (0.28 rev/gal) set at 1.5 deg and 8-3/4" PDC bit dressed with 6-1/2" jets. Scribe in and orientate tools. Trip in hole. Tag cement above insert at 1,473'. Filled pipe. Slip and cut 50' of drill line. Install side entry sub. Pressure test casing to 1,000 psi for 20 minutes (good). Pressure test BOPE, choke, and all valves to 1,000 psi (good). Drill out shoe track. Directional drill vertical hole ahead from 1,525' to 2,280'. 10 - 15 WOB, 230 RPM's at the bit, 570 GPM, 1,900 psi (153/hr average ROP).	
4/25/2013	Circulate hole clean for wiper. Wipe hole to shoe. Free. Trip in hole to bottom. No fill or obstructions. Circulate hole clean. Rig up to lay down drill pipe. Pulled out of hole and laid down drill pipe. Break Kelly. Lay down directional tools. Break bit. Clear floor. Rig down and lay down equipment. Held safety meeting. Spot and rig up Baker Atlas log tools and unit. Log well. Run 1 - Quad combo with di electric/XMAC/and acoustic and 500' inside of casing. Loggers depth at 2,582'. Max temp at 122 deg. Run 2 - GR/HDIL/XMAC. Loggers depth at 2,582'. Rig down loggers. Held safety meeting. Rig up B&L casing and tong crew. Rig up tong equipment. Run 66 joints of 7", 26#, J-55 LT&C casing with shoe set at 2,587' and insert at 2,496'. Circulate hole clean. Condition mud for cement job. Held safety meeting and rig up Halco cementers. Pressure test pumps and lines to 2,050 psi (good). Pumped 20 bbls of water ahead, followed by 97 bbls (544 cu. ft., 201 sacks) of 12.0 ppg EconoCem cement with a 2.71 yield and a 15.2 water requirement at 5 bpm. Stopped pumping. Dropped wiper plug and displaced with 96 bbls filtered lease water. Bumped plug at 500 psi over 1,100 psi final pressure. Checked floats (good). Cement in place at 03:20 hrs. Full returns and pipe reciprocation during job. 10 bbls of cement to surface. Rig down cementers. Dropped and set casing slips. Energized and set slip seals. Test against slips with 500 psi (good). Nipple down BOPE stack. Lift stack. Made rough cut on 7" casing. Set out cut off and BOPE stack. Dress stump. Set in and install 11" x 7-1/16", 3M lubing head.	
4/26/2013	Test tubing head to 2,000 psi for 10 minutes (good). Secure well. Release rig at 07:00 hrs. Tear out rig #4 and prepare to move.	
	<u>Completion</u>	
5/24/2013	Day 1. MIRU HLS lubricator and equipment and run CCL and Gamma Ray log. Correlate to open hole Gamma Ray, PU and RIH CCL and 6.1 drift tool. POOH down drift tool. PU CCL and 8'-4" slick gun with 6 SPF 60 degree phasing. Get on depth and perforate 2510'-2518'. POOH PU CCL and 6'-4" slick gun with 3 SPF on 120 degree phasing and perforate 2348'-2345'. POOH out of hole. PU CCL and 8'-4" slick guns with 3 SPF on 120 degree phasing and perforate 2310'2318'. POOH, RDMO. Secure well.	

6/1/2013

Day 2. Frac Stage 1. Held pre-job safety meeting. Test lines to 3500 psi. Max Press. = 2500 psi. Kickouts staggered from 2300-2500 psi. Pop-off set at 2500 psi. Frac Stage 1 to completion. Re-designed with less aggressive ramp. Stage from 2-3-4-5-6 ppg. Pumped slugs prior to staging to make sure it would take.

ISIP = 842 psi

FG = 0.782 psi/ft

Avg. Rate = 31.3 bpm

Avg. Press = 835 psi

Total Propp = 25,137 lbs. brown, with 4-5% sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbl remaining.

MIRU HLS nipple-up lubricator and equipment. RIH with CCL and BP, get on depth, set BP at 2285', POOH. RU pump truck and attempt to test plug. Failed. RIH with CCL and 20'-4" slick gun, get on depth and perforate 2200'-2220', 3 SPF, 120 degree phasing. POOH.

Frac Stage 2. Held pre-job safety meeting. Test line to 3500 psi. Frac stage to completion as designed. Pre-frac ISIP = 371 psi, FG = .601 psi/ft.

ISIP = 544 psi

FG = 0.679 psi/ft

Avg. Rate = 31.3 bpm

Avg. Press = 474 psi

Total Propp = 120,075 lbs. 20/40 brown, with 4-5% sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with CCL and BP, get on depth, set BP at 2167', POOH. RU pump truck and test plug to 1500 psig. Held. RIH with CCL and 10'-4" slick gun, get on depth and perforate 2132'-2142' 3 SPF, 120 degree phasing, POOH. RIH with CCL and 10'-4" slick gun, get on depth and perforate 2054'-2064', 3 SPF, 120 degree phasing, POOH.

Frac Stage 3. Held pre-job safety meeting. Test lines to 3500 psi. Frac Stage 3 to completion as designed. Pre-frac ISIP = 477 psi, FG = .661 psi/ft.

ISIP = 560 psi

FG = 0.70 psi/ft.

Avg. Rate = 30 bpm

Avg. Press = 495 psi

Total Propp = 161,923 lbs. 10/40 brown, with 4-5% sandwedge tail-in. Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with CCL and BP, get on depth, set BP at 2012', POOH. RU pump truck and test plug. Failed. RIH with CCL and 10'-4" slick gun, get on depth and perforate 1960'-1970', 3 SPF, 120 degree phasing. POOH. RIH with CL and 4'-4" slick gun, get on depth and perforate 1870'-1874', 3 SPF, 120 degree phasing. POOH.

Frac Stage 4. Held pre-job safety meeting. Test lines to 3500 psi. Frac stage 4 to completion as designed. Pre-frac ISIP = 474, FG = .68 psi/ft.

ISIP = 597 psi

FG = 0.744 psi/ft.

Avg. Rate = 31.6 bpm

Avg. Press = 477 psi

Total Propp = 260,755 lbs. 10/40 brown, with 4-5% sandwedge tail-in. Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIG with CCL and BP, get on depth, set BP at 1813', POOH. PU pump truck and test plug to 1500 psig. Held. RIH with CCL and 20'-4" slick gun, get on depth and perforate 1736'-1756', 3 SPF, 120 degree phasing. POOH.

Frac Stage 5. Held pre-job safety meeting. Test lines to 3500 psi. Frac stage 5 to completion as designed. Pre-frac ISIP = 537 psi, FG = .74 psi/ft (maybe skewed by NWB Issue).

ISIP = 537 psi

FG = 0.74 psi/ft.

Avg. Rate = 31.5 bpm

Avg. Press = 537 psi.

Total Propp = 194,761 lbs. 10/40 brown, with 4-5% sandwedge tail-in. Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

6/5/2013

Day 3. Arrived at location. Held safety meeting. Moved rig from L-5 to J-5A. MIRU, put out guy wires, screwed in anchors, lally tubing and made up retrieving head. RIH with tubing and tagged at 1748'. Rigged up circulate, Pump and circulate head. Cleaned out to 1842'. POOH tubing, laid down BP, made up retrieving head. RIH with tubing and tagged at 1933'. Sand cleaned out to 2036'. POOH tubing, laid down BP, made up retrieving head, ran kill string. Closed in well. Loaded tools until morning.

6/10/2013

Day 4. Arrived at location and held safety meeting. Serviced rig. Bled well. Well flowing. Killed well. Continued in hole, tagged sand at 2036'. Cleaned out to 2184'. POOH with BP. Made up retrieving head. Tagged at 2390'. Cleaned out to 2472'. Let well clean up. BP went ED. POOH with tubing, laid down BP. Made up 2 1/2 shoe. RIH with tubing, landed donut. Closed well in until morning.

6/11/2013

Day 5. Arrived at location and held safety meeting. Serviced rig. Bled well to 0 psi. Rig out work floor, loaded tools, stripped off BOP, put on production tree. Picked up pump. RIH with rods and k-bars. Spaced well stroke, ok. Took down guy wires, unscrewed anchor, hauled off trash and cleaned location. Rig down. Rig out circulation pump. Moved off. Job complete.

OG103
(6/97/GSR/6
M)

Printed on
recycled paper.

SUBMIT IN DUPLICATE

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

Avg Press = 835 psi

Tot. Propp = 250,137 lbs brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

MIRU HLS Nipple up Lubricator and equipment

RIH with CCL and BP get on depth set Bp at 2265 POOH RU pump truck and attempt to test plug FAILED

RIH with CCL and 20'-4" slick gun get on depth and perf 2200-2220 3 spf 120 deg phasing POOH

Frac 2

Held PJSM. Test lines to 3500 psi.

Frac stage to completion as designed. Pre-frac ISIP = 371 psi, FG = .601 psi/ft

ISIP = 544 psi

FG = 0.679 psi/ft

Avg Rate = 31.3 bpm

Avg Press = 474 psi

Tot. Propp = 120,075 lbs 20/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with CCL and BP get on depth set Bp at 2176 POOH RU pump truck and test plug to 1500 psig HELD

RIH with CCL and 10'-4" slick gun get on depth and perf 2132-2142 3 spf 120 deg phasing POOH

RIH with CCL and 10'-4" slick gun get on depth and perf 2054-2064 3 spf 120 deg phasing POOH

Frac 3

Held PJSM. Test lines to 3500 psi.

Frac stage to completion as designed. Pre-frac ISIP = 477 psi, FG = .661 psi/ft

ISIP = 560 psi

FG = 0.70 psi/ft

Avg Rate = 30 bpm

Avg Press = 495 psi

Tot. Propp = 161,923 lbs 10/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with CCL and BP get on depth set Bp at 2012 POOH RU pump truck and test plug FAILED

RIH with CCL and 10'-4" slick gun get on depth and perf 1960-1970 3 spf 120 deg phasing POOH

RIH with CCL and 4'-4" slick gun get on depth and perf 1870-1874 3 spf 120 deg phasing POOH

Frac 4

Held PJSM. Test lines to 3500 psi.

Frac stage to completion as designed. Pre-frac ISIP = 474 psi, FG = .68 psi/ft

ISIP = 597 psi

FG = 0.744 psi/ft

Avg Rate = 31.6 bpm

Avg Press = 477 psi

Tot. Propp = 260,755 lbs 10/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RIH with CCL and BP get on depth set Bp at 1813 POOH RU pump truck and test plug to 1500 psig HELD
RIH with CCL and 20'-4" slick gun get on depth and perf 1736-1756 3 spf 120 deg phasing POOH

Frac 5

Held PJSM. Test lines to 3500 psi.

Frac stage to completion as designed. Pre-frac ISIP = 537 psi, FG = .74 psi/ft (maybe skewed by NWB issue)

ISIP = 537 psi

FG = 0.74 psi/ft

Avg Rate = 31.5 bpm

Avg Press = 537 psi

Tot. Propp = 194,761 lbs 10/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

EXHIBIT "4"

Drilling and Completion Synopsis

Operation	Day	Date	Comment
Well: JJJ-5			
Drilling	1	4/18/2013	MIRU drilling rig, drill to 905'.
Drilling	2	4/19/2013	Drill surface hole section to 1491'. Run and cement 9-5/8" casing. Cement with 735 ft3, circulated 40 bbls cement to surface.
Drilling	3	4/20/2013	Install wellhead, NU BOPE, drill production hole section to 2536'
Drilling	4	4/21/2013	Drill production hole section to 2784', TD. Run and cement 7" production casing, cement with 581 ft3, circulated 13 bbls to surface. RR.
Completion	1	5/23/2013	MIRU workover unit, Perforate 2474' - 2480', 2408' - 2414', 2250' - 2256', 2190' - 2196'. Rig down work over unit.
	2	6/1/2013	Frac interval, stage 1. Perforate 2282' - 2288' and 2212' - 2218', re-frac interval, set bridge plug #1 at 2157'. Perforate 2104' - 2124', frac interval, stage 2. Ran in hole with bridge plug #2, stuck at 754'. MIRU work over unit, pick up tools. Attempt to bleed pressure off of well. Well was flowing and could not continue in hole. Hook up temporary flow line and left well flowing to system.
	3	6/2/2013	Allowed well to flow to sump. Unable to recover bridge plug #2. RDMO workover unit.
	4	6/3/2015	MIRU workover unit recovered bridge plug #2. Run in hole and set bridge plug #3 at 2100'. Perforate 2024' - 2034', 1956' - 1966'.
	5	6/4/2013	Frac interval, stage 3. Set bridge plug #4 at 1917', perforate 1868' - 1878', 1784' - 1788', frac interval, stage 4. Run in hole and set bridge plug #5 at 1733', perforate 1644' - 1684', frac interval, stage 5
	6	6/5/2013	(Attempt) to bleed well (off). Well was flowing. Killed well. Run in hole, tag at 1689', clean out and tag bridge plug at 1739', recovered bridge plug #5 Run in hole, tag at 1891', clean out and tag bridge plug at 1921', recovered bridge plug #4 Run in hole, tag at 1999', clean out and tag bridge plug at 2053', recovered bridge plug #3 After retrieving bridge plug set at 2053' a lot of oil started flowing back.
	7	6/6/2013	Well had oil flowing. Hooked up poor boy and bled down well to pit. Run in hole, tag at 2074', clean out and tag bridge plug at 2118'.
	8	6/7/2013	Run in hole, tag at 2093', clean out and tag bridge plug at 2112', recovered bridge plug #1 Bridge plug coming out of hole and sand coming in. Tag sand at 2164'. Bled well down. Well was flowing. Oil and water were flowing from tubing, backside and casing. Hooked up poor boy . Pumped fluid down well to kill well. Ran in hole with tubing, tag sand at 2350', cleaned out to 2644'. Put well on pump. Rig down work over unit.

EXHIBIT

2

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator BrettBurn Operating, LP (B6131) Field Belridge, South County Kern
Well "Dow Chanslor" JJJ-5 Sec. 12 T. 28S R. 20E M.D. B.&M.
A.P.I. No. 030-50422 Name Brad Pierce Title Agent
(Person submitting report) (President, Secretary, or Agent)
Date 10/9/2013
(Month, day, year) Signature _____
Address 515 S. Flower St., Suite 4800 Los Angeles, CA 90071 Telephone Number (213) 225-5900

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, balling tests, and initial production data.

Date	Permit No. P413-1939	(Note: All depths refer to KB, which is 14' above mat.)
	Drill Well	
4/18/2013	Move in and rig up Kenal Rig 4 on well. Spot sub structure, mud pumps, pit, catwalk, and center rig over the hole. Raise and pin mast. Begin to rig up the floor. Set in and weld on 13-5/8" 3M starting flange with 6" diverter outlet. Set in shakers and mud cleaner. Held safety meeting. Scope and pin mast. Rig up Kenal rig 4. Perform rig up check. Good. Start rig time 15:00 hours. Set in and nipple up 13-5/8" 3M annular with 6" diverter. Function test same; good. Mixed mud. Load pipe racks with casing. Remove thread protectors and strap same. Pick up and make up Scientific Directional Tools 7/8 Motor (0.16 rev/gal) with MWD and 12-1/4" MT bit. Directionally drill and survey from 54' to 905', 600 GPM, 176 RPM, 10K WOB. (95' per hour average ROP).	
4/19/2013	Directionally drill and survey from 905' to surface hole TD at 1491', 600 PPM, 176 RPM, 10K WOB (97.6 ft./hour average ROP). Circulate hole clean and condition mud for wiper. Wipe hole to directional tools; free. Trip in hole to 500'. Circulate hole clean. Heavy clay. Mud contaminated with gypsum. Treat contaminated mud. Stage in hole to 800'. Circulate hole clean. Heavy clay. Mud contaminated with gypsum. Treat mud. Continue to trip in hole to bottom. No fill or obstructions. Circulate hole clean. Condition mud for casing. Pull out of hole. Lay down 8" directional tools. Break bit. Clean floor. Held safety meeting with B&L Casing. Rig up tong equipment. Run 39 joints of 9-5/8" 36# J-55 LTC casing with shoe set at 1491'. See Tally. Note: Stage casing in hole from 250' to 400'. String taking weight. Rest free. Rig up cement head. Circulate hole clean. Held safety meeting with HALCO Cementers for the cement job. Pressure test pumps and lines to 2000 psi. Good. Pump 20 bbls water ahead, followed by 131 bbls, 735 cubic feet, 323 sacks of 12.5 ppg EconoCem cement with a 2.28 yield and a 12.36 water requirement at 5 BPM. Stopped pumping. Dropped wiper plug and displaced with 111 bbls mud. Bumped plug 500 psi over. Checked floats; good. Cement in place at 02:00 hours. Full returns and pipe reciprocation, 40 bbls cement to surface. Rig down cementers. Drain and wash stack. Slack off. Nipple down 13-5/8" BOPE and diverter system. Rough cut 9-5/8" casing. Lay out same. Cut off and remove starter head. Dress stump. Install 11" 3M SOW wellhead with welders.	
4/20/2013	Complete well and install 3M 11" well head. Test weld to 1000 psi; good. Nipple up 11" 3M Class II BOPE with choke. Function test same; good. Gather, strap, pickup and make up 6-3/4" directional tools with 7.8 motor (0.28 rev/gal). Set at 1.5 degree. Pickup 8-3/4" MT bit dressed with 3/16" jets. Scribe in and orientate tools. While pulling drill collar slips it was noticed that a slip die from the drill collar slipped and fell down the hole. Pull out of holes. Stand back collars. Service rig. Clean rig floor. Make run with magnet in attempt to retrieve dropped slip die; unsuccessful. Pick up motor and 8.75 MT bit and bottom-hole-assembly and trip in the hole. Tag top of insert at 1435'. Fill pipe. Pressure test casing to 1000 psi for 20 minutes; good. Pressure test BOPE, choke and all valves to 1000 psi; good. Drill out insert, shoe track and new hole from 1491' to 1500'. Circulate hole clean and condition mud. Directionally drill and survey vertical well from 1500' to 2563', 10-15 WOB, 230 RPMs at the bit, 570 GPM, 1900 psi. (126 feet/hour average ROP)	
4/21/2013	Directionally drill and survey vertical well from 2563' to 2784', 10-15 WOB, 230 RPMs at the bit, 570 GPM, 1900 psi. (110 feet per hour average ROP). Circulate hole clean. Wipe hole to shoe; free. Trip in hole to bottom; no obstructions or fill. Circulate the hole clean. Rig up to lay down pipe. Pull out of hole and lay down drill pipe and collars. Break bit. Clean rig floor. Change bails. Held safety meeting with B&L casing crew. Rig up to run casing. Run 85 joints of 7" 26# LT&C casing with shoe set at 2784'. (See Tally) Install cement head. Rig down tongs. Held safety meeting with HALCO Cementers. Circulate hole clean and condition mud for cement job. Pressure test pumps and lines to 2000 psi; good. Pump 20 bbls water ahead, followed by 103.5 bbls, 581 cubic feet, 215 sacks of 12.0 ppg EconoCem cement with a 2.71 yield and a 15.2 water requirement at 5 BPM. Stopped pumping. Dropped wiper plug and displaced with 102.5 bbls filtered lease water. Bumped plug 500 psi over. 1000 psi final pressure. Checked floats; good. Cement in place at 22:30 hours. Full returns and pipe reciprocation during job; 13 bbls of cement to surface. Rig down cementers. Drop and set casing slips. Energized and set slip seals. Test against slips with 500 psi; good. Nipple down stack. Lift stack. Make rough cut on 7" casing. Set out cut off and BOPE stack. Dress stump. Set in and install 11" x 7-1/16", 3M tubing head. Test tubing head to 2000 psi for 10 minutes; good. Dump and clean pits. Secure well. Release rig at 01:00 hours. Tear out rig 4 and prep for move.	
	Completion	
5/23/2013	Move in and rig up. Held safety meeting. Rig in hole with CCL and Gamma Ray log and correlate with casing tally and flag joint. No open hole logs available. Pull out of hole, pick up CCL and 6'-4" slick gun, rig in hole, tie in depth, perforate 2474'-2480', 6 SPF 60 degree phasing. Pull out of hole, pick up CCL and 6'-4" slick gun, rig in hole, tie in depth, perforate 2408'-2414', 6 SPF 60 degree phasing. Pull out of hole, pick up CCL and 6'-4" slick gun, rig in hole, tie in depth, perforate 2250'-2256', 3 SPF 120 degree phasing. Pull out of hole, pick up CCL and 6'-4" slick gun, rig in hole, tie in depth, perforate 2190'-2196', 3 SPF 120 degree phasing. Secure well. Rig down and move out.	

6/1/2013

Frac Stage 1. Rig up frac lines to JJJ-5 and J-5A well pair. Held pre-job safety meeting. Test lines to 3500 psi. Max Press = 2500 psi. Kickout staggered from 2300-2500 psi. Pop-off set at 2500 psi. Frac stage 1 flushed early due to high testing pressure. Treating pressure was high from the outset. Lowest pressure was 735 psi on 6 ppg, but steadily increased from there with large net pressure on slope. Called flush at 1200 psi with 1200 psi in hydrostatic.

ISIP = 1283 psi

FG = 0.983 psi/ft

Ave. Rate = 32.3 bpm

Avg. Press = 915 psi

Total Propp = 109,037 lbs 20/40 brown, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining. Re-correlate to offset open hole on JJJ-7 and decide to re-shoot perms.

Move in and rig up HLS lubricator and equipment. Rig in hole CCL 6'-4" slick gun, tie in depth and perforate from 2282'-2288'. Rig in hole CCL 6'-4" slick gun, tie in depth and perforate from 2212'-2218'.

Re-frac Stage 1.

Held pre-job safety meeting. Test lines to 3500 psi. Frac stage 1 to completion. Put away remaining sand on stage. Began with 3 ppg. Saw net pressure increase, pumped 4 ppg slug, net pressure slope decrease. Continued to pump slugs and ramp 1 ppg at a time to 6 ppg. Held at 6 ppg.

ISIP = 597 psi

FG = 0.698 psi/ft

Avg. Rate = 30.3 bpm

Avg. Press = 853 psi

Re-frac stage Propp = 142,267 lbs 20/40 brown, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Fig up HLS and rig in hole with CCL and bridge plug, tie in depth, set bridge plug at 2157'. Pull out of hole. Pick up CCL and 20'-4" slick gun, tie in depth, and perforate 3 SPF on 120 degree phasing from 2104'-2124'. Pull out of hole.

Frac Stage 2. Held pre-job safety meeting. Test lines to 3500 psi. Frac Stage 2 to completion as designed.

ISIP = 858 psi

FG = 0.839 psi/ft

Avg. Rate = 31.4 bpm

Avg. Press = 697 psi

Total Propp = 103,608 lbs. Pumped all 20/40 brown left on location, with 4-5% Sandwedge tail-in. Ran a little heavy on previous stage.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Pick up HLS CCL and bridge plug. Rig in hole to 754' and bridge plug stuck. Attempt to pump bridge plug free. No movement up or down. Attempt to set plug. Had to pull out of rope socket. Rig down, move out wire line truck and lubricator. Move in, rig up workover rig. Pick up overshot and crossover subs on 2-7/8" tubing. Attempt to bleed pressure off well. Well was flowing and could not continue in hole. Hook up temporary flow line and left well flowing into system overnight.

6/2/2013

Held safety meeting. Allow well to flow into sump. Pick up overshot and bumper sub. Rig in hole with fishing tool and 2-7/8". Did not tag bridge plug at 754' where wire line had left it. Continue in hole, pushing BP ahead, and picking up 2-7/8". Went to 2180', which is below the BP depth required for the next frac stage. Program depth is 2069'. In an effort not to delay frac crews, it was decided to pull out of hole tubing and fishing tools, laying down, rig down and move out. Rig up HLS, pick up bridge plug, CCL and rig in hole. Tie in depth stopped at 2004'. Pull out of hole, down plug. Pick up drift tool and rig in hole. Stopped at 2008'. Pull out of hole. Rig down HLS. Move off location. Secure well until morning.

6/3/2013

Move in work-over rig to clean out well and recover fish. Rig in hole with fishing tools. Circulate to 2158'. Latch onto plug. Plug set so pin was apparently sheared. Pull out of hole and land setting tool, CCL, and fishing tools. Rig in hole with wire-line and tag bottom. Rig up HLS. Rig in hole with CCL and bridge plug and tie in depth. Plug misfired. Pull out of hole and pickup bridge plug. Tie in depth 2100'. Pickup CCL and 10'-4" slick gun, tie in depth and perforate 3 SPF on 120 degree phasing, 2024'-2034'. Pull out of hole. Pickup CCL and 10'-4" slick gun, tie in depth and perforate 3 SPF on 120 degree phasing, 1956'-1966'. Pull out of hole. Frac Stage 3 tomorrow.

6/4/2013

Frac remaining stages. Frac Stage 3. Held pre-job safety meeting. Test lines to 3500 psi. Frac stage 3 to completion as designed. Pre-Frac ISIP = 386 psi, FG = 0.626 psi/ft.

ISIP = 421 psi

FG = 0.645 psi/ft

Avg. Rate = 32 bpm

Avg. Press = 395 psi

Total Propp = 160,368 lbs, 10/40 brown, with 4-5% Sandwedge tail-in.

Flushed to top of perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Rig up wire line. Rig in hole with CCL and bridge plug. Rig in hole, tie in depth, set BP at 1917'. Pull out of hole. Pickup CCL 10'-4" slick gun. Rig in hole, tie in depth, and perforate 1868'-1878', 3 SPF, 120 degree phasing. Pull out of hole. Pickup CCL 4'-4" slick gun. Rig in hole, tie in depth, and perforate 1784'-1788', 3 SPF, 120 degree phasing. Pull out of hole.

Frac Stage 4. Hold pre-job safety meeting. Test lines to 3500 psi. Frac stage 4 to completion design.

ISIP = 477 psi

FG = 0.693 psi/ft.

Avg. Rate = 31.8 bpm

Avg. Press = 386 psi

Total Propp = 260,548 lbs, 10/40 brown, with 4-5% Sandwedge tail-in.

Flushed to top of perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Rig up wire line. Rig in hole with CCL and bridge plug. Rig in hole, tie in depth, and set BP at 1733'. Pull out of hole. Pickup CCL 20'-4" slick gun. Rig in hole, tie in depth, and perforate 1644'-1684', 3 SPF, 120 degree phasing. Pull out of hole. Rig down HLS.

Frac Stage 5. Held pre-job safety meeting. Test lines to 3500 psi. Frac stage 5 to completion design. Pre-frac ISIP = 411 psi, FG = 0.697 psi/ft.

ISIP = 473 psi

FG = 0.715 psi/ft.

Avg. Rate = 32 bpm

Avg. Press = 443 psi

Total Propp = 196,636 lbs, 10/40 brown, with 4-5% Sandwedge tail-in.

Flushed to top of perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RDMO HAL frac equipment.

6/5/2013

Arrived on location and held safety meeting. Bled well. Well was flowing. Tally pipe. Killed well. Ran in hole with tubing and tagged at 1689'. Circulated to plug 7 at 1739'. Pulled out of hole with tubing and plug. Ran in hole with tubing and tagged sand at 1891'. Circulated to plug at 1921'. Pulled out of hole with tubing. Ran in hole with tubing and tagged sand at 1999'. Circulated to plug at 2053'. Came out of hole with plug and ran in 4 stands. Closed well in, cleaned area and left location. After retrieving plug #3 a lot of oil started flowing back. Closed well in until morning.

6/6/2013

Arrived at location and held safety meeting. Serviced rig. Bled well. Well had oil flowing. Hooked up poor boy and bled down well to pit. Ran in hole with 5 stands and tagged sand at 2074'. Circulated to plug at 2118'. Came out of hole. Ran in hole and tagged sand at 2093'. Circulated to plug #5 at 2112'. Packer coming out of hole and sand coming in. Started with plug #5. Came in hole with plug. Ran in hole and tagged sand at 2164'. Came out of hole with plug. Ran in hole with tail joint and shoe. Until morning.

6/7/2013

Arrived on location and held safety meeting. Service rig. Bled down well. Well was flowing. Oil and water were flowing from tubing, backside and casing. Hooked up poor boy. Pumped fluid down to kill well. Ran in hole and tagged sand at 2350'. Circulated to bottom at 2644'. Laid down 11 joints. Landed well and donut. At 2310' hooked up production tree. Ran pump, kbars, and 71 rods. Pressure tested to 250 psi, okay. Spaced well out, cleaned area, loaded out equipment. Rigged down. Cleaned area. Moved rig, materials, and frac BOPE. Left location. Job complete.

Avg Rate = 32.2 bpm

Avg Press = 915 psi

Tot. Propp = 109,037 lbs 20/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

Re-correlated to offset OH on JJJ-7 and decided to re-shoot perms.

MIRU HLS lubricator and equipment

RIH CCL 6'-4' slick gun tie in depth and perf from 2282-2288'

RIH CCL 6'-4' slick gun tie in depth and perf from 2212 - 2218'

Re-Frac Stage 1

Held PJSM. Test lines to 3500 psi.

Frac stage 1 to completion. Put away remaining sand on stage. Began with 3 ppg, saw net pressure increase, pumped 4 ppg slug, net pressure slope decrease. Continued to pump slugs and ramp 1 ppg at a time to 6 ppg. Held at 6 ppg.

ISIP = 597 psi

FG = 0.698 psi/ft

Avg Rate = 30.3 bpm

Avg Press = 852 psi

Tot. Stage Prop = 251,304 lbs

Re-frac stage Prop = 142,267 lbs 20/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RU HLS RIH with CCL and BP tie in depth set BP 2157 POOH

PU CCL and 20'-4" slick gun tie in depth and perf 3 spf on 120 deg phasing 2104-2124 POOH

Frac Stage 2

Held PJSM. Test lines to 3500 psi.

Frac stage 2 to completion as designed.

ISIP = 858 psi

FG = 0.839 psi/ft

Avg Rate = 31.4 bpm

Avg Press = 697 psi

Tot. Propp = 103,608 lbs -- Pumped all 20/40 brown left on location, with 4-5% Sandwedge tail-in. Ran a little heavy on previous stages.

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

PU HLS CCL and BP RIH to 754' and BP stuck, Attempt to pump BP free NO movement up or down attempt to set plug had to pull out of rope socket RDMO wire line truck and lubricator

MIRU WOR PU Overshot and crossover subs on 2 7/8' tbg. Attempt to bleed pressure off well. Well was flowing and could not continue in hole. Hook up temporary flow line and left well flowing into system overnight

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

RU wire line RIH CCL and BP RIH tie in depth set bp at 1917 POOH
 PU CCL 10' 4" slick gun RIH tie in depth and perf 1868-1878 3 spf 120 deg phasing POOH
 PU CCL 4" 4" slick gun RIH tie in depth and perf 1784-1788 3 spf 120 deg phasing POOH

Frac Stage 4

Held PJSM. Test lines to 3500 psi.
 Frac stage 4 to completion as designed.
 ISIP = 477 psi
 FG = 0.693 psi/ft
 Avg Rate = 31.8 bpm
 Avg Press = 386 psi
 Tot. Propp = 260,548 lbs 10/40 brown, with 4-5% Sandwedge tail-in
 Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RU wire line RIH CCL and BP RIH tie in depth set bp at 1733 POOH
 PU CCL 20' 4" slick gun RIH tie in depth and perf 644-1684 3 spf 120 deg phasing POOH
 RD HLS

Frac Stage 5

Held PJSM. Test lines to 3500 psi.
 Frac stage 5 to completion as designed. Pre-Frac ISIP = 441 psi, FG = 0.697 psi/ft
 ISIP = 473 psi
 FG = 0.715 psi/ft
 Avg Rate = 32 bpm
 Avg Press = 443 psi
 Tot. Propp = 198,636 lbs 10/40 brown, with 4-5% Sandwedge tail-in
 Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RDMO HAL frac equipment.

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

EXHIBIT "5"

Drilling and Completion Synopsis

Well: L-5A		Operation	Day	Date	Comment
	1	Drilling	4/14/2013	MIRU drilling rig, drill to 1103'.	
	2	Drilling	4/15/2013	Drill surface hole section to 1537'. Run and cement 9-5/8" casing. Cement with 803 ft3, circulated 40 bbls cement to surface.	
	3	Drilling	4/16/2013	Install wellhead, NU BOPE, drill production hole section to 2619', TD.	
	4	Drilling	4/17/2013	Log well, run and cement 7" production casing, cement with 535 ft3, circulated 20 bbls to surface. RR.	
Completion	1		5/22/2013	MIRU wireline unit. Perforate 2462' - 2454', 2350' - 2344', 2314' - 2308'. Rig down wireline unit.	
	2		5/28/2013	Frac interval, stage 1. MIRU wireline unit, ran in hole with bridge plug #1 and set 2254'. Perforate 2180' - 2200'	
	3		5/29/2013	Frac interval, stage 2. MIRU wireline unit, ran in hole with bridge plug #2 and set 2150'. Perforate 2110' - 2120', 2036' - 2046'. Frac interval, stage 3.	
	4		5/30/2015	Repair frac equipment.	
	5		5/31/2013	Frac interval, stage 4. Ran in hole with bridge plug #3 and set at 1848', perforate 1946' - 1956', 1864' - 1868'. Frac interval, stage 5.	
	6		6/1/2013	MIRU work over unit.	
	7		6/2/2013	Bled (well) down, Run in hole, tag at 1768', clean out and tag bridge plug at 1810' recovered bridge plug #4. Run in hole, tag at 1925', clean out and tag bridge plug at 1998', recover bridge plug #3.	
	8		6/3/2013	Bled well (to) 0 psi. Run in hole, tag at 2120', clean out and tag bridge plug at 2120', recoverd bridge plug #2. Run in hole, tag at 2195, clean out and tag bridge plug at 2253', recovered bridge plug #1. Run in hole and clean out sand to 2893'.	
	9		6/4/2013	Bled well, put well on pump, rig down work over unit.	

EXHIBIT 5

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator BreitBurn Operating, LP (B6131) Field Belridge, South County Kern
Well "Dow Chanslor" L-5A Sec. 12 T. 28S R. 20E M.D. B.&M.
A.P.I. No. 030-50423 Name Brad Pierce Title Agent
(Person submitting report) (President, Secretary, or Agent)
Date 10/9/2013
(Month, day, year)
Signature _____
Address 515 S. Flower St., Suite 4800 Los Angeles, CA 90071 Telephone Number (213) 225-5900

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, balling tests, and initial production data.

Date	Permit No. P413-1940	(Note: All depths refer to KB, which is 14' above mat.)
	Drill Well	
4/14/2013	Move in and rig up Kenai Rig #4 on well number L-5A. Spot sub structure, mud, pumps, pit, catwalk, and center rig over hole. Raise and pin mast. Begin to rig up the rig floor. Set in and weld on 13-5/8" 3M starting flange with 6" diverter outlet. Set in shakers and mud cleaner. Held safety meeting. Scope and pin mast. Rig up Kenai rig #4. Perform rig up check - good. Start rig time at 11:00 hrs. Set in and nipple up 13-5/8" 3M annular with 6" diverter. Function tested same - good. Mix mud. Load pipe racks with casing. Removed thread protectors and strap same. Pick up and made up Scientific directional tools 7/8 motor (0.16 rev/gal) with MWD and 12-1/4" MT bit dressed with 3-16 and 1 - 12 jets (TFA: 0.69). Directional drill and survey from 54' to surface hole to 1,103' - 600 GPM, 176 RPM, 10K WOB (81'/hr average ROP).	
4/15/2013	Directional drill and survey from 1,103' to surface hole TD at 1,537' - 600 GPM, 176 RPM, 10K WOB (96'/hr average ROP). Circulate hole clean and condition mud for wiper. Wipe hole for directional tools. Free. Trip in hole to 500'. Circulate hole clean. Heavy clay. Mud contaminated with Gyp. Treat contaminated mud. Wipe hole to conductor. Free. Stage in hole to 800'. Circulate hole clean. Heavy clay. Mud contaminated with Gyp. Treat contaminated mud. Continue to trip in hole to bottom. No fill or obstructions. Circulate hole clean. Condition mud for casing. Pulled out of hole. Laid down 8" directional tools. Break bit. Clean floor. Held safety meeting with B&L casing. Rig up tong equipment. Run 42 joints of 9-5/8", 36#, J-55, LT&C casing with shoe set at 1,537'. Rig up cement head. Circulate hole clean. Held safety meeting with Halco cementers for the cement job. Pressure test pumps and lines to 2,000 psi - good. Pumped 20 bbls of water ahead, followed by 143 bbls (803 cu. ft., 352 sacks) of 12.5 ppg EconoCem cement with a 2.28 yield and a 12.36 water requirement at 5 bpm. Stopped pumping. Dropped wiper plug and displaced 115 bbls of mud. Bumped plug 500 psi over. Checked floats - good. Cement in place at 00:00 hrs. Full returns and pipe reciprocation. 40 bbls of cement to surface. Rig down cementers. Drain and wash stack. Wait on cement. Slack off. Nipple down 13-5/8" BOPE and diverter system. Rough cut 9-5/8" casing. Lay out same. Cut off and removed starter head. Dress stump. Installed 11" 3M SOW wellhead with welders. Tested weld to 1,000 psi - good.	
4/16/2013	Nipple up 11" 3M Class II BOPE with choke. Function tested same - good. Gather, strap, pick up and made up 6-3/4" directional tools with 7/8 (0.28 rev/gal) set at 1.5 deg and 8-3/4" MT bit dressed with 3/16's jets. Scribe in and orientate tools. Trip in hole and tag insert at 1,484'. Filled pipe. Pressure test casing to 1,000 psi for 20 minutes, good test. Pressure test BOPE, choke, and all valves to 1,000 psi - good. Drill out insert and shoe track, and new hole from 1,537' to 1,554'. Circulate hole clean. Pulled out of hole. Installed Reed E1068-A1 PDC. Trip in hole to bottom. No obstructions. Service rig. Directional drill and survey vertical well from 1,554' to 2,619' - 10-15 WOB, 230 RPM's at the bit, 570 GPM, 1,900 psi (163'/hr average ROP). Circulate hole clean for wiper. Pulled out of hole for log run. Break bit. Laid down directional tools. Circulate hole clean and condition mud for log run. Make clean out run to bottom for log run. No fill or obstructions. Circulate hole clean. Pulled out of hole for log run.	
4/17/2013	Circulate the hole clean. Pulled out of hole for loggers. Free. Held safety meeting with Halco loggers. Spot log unit and rig up loggers. Made up log tool and traverse in hole with tools. Log well. 1-Run Triple Combo. Loggers depth at 2,616'. Max temperature at 115. Rig down loggers. Service rig. Made clean out run to bottom. No fill or obstructions. Circulate the hole clean (rig up to lay down drill pipe). Pull out of hole and laid down drill pipe and collars. Break bit. Cleaned rig floor. Change bails. Held safety meeting with B&L casing crew. Rig up to run casing. Run 69 joints of 7", 26#, LT&C casing with shoe set at 2,619'. Installed cement head. Rig down tongs. Held safety meeting with Halco cementers. Circulate hole clean and condition mud for cement job. Pressure test pumps and lines to 2,000 psi - good. Pumped 20 bbls of water ahead, followed by 95 bbls (535 cu. ft., 198 sacks) of 12.0 ppg EconoCem cement with a 2.71 yield and 15.2 water requirement at 5 bpm. Stopped pumping. Dropped wiper plug and displaced with 99 bbls filtered lease water. Bumped plug 500 psi over, 1,000 psi final pressure. Checked floats - good. Cement in place at 00:00 hrs. Full returns and pipe reciprocation during job. 20 bbls of cement to surface. Drop and set casing slips. Energized and set slip seals. Test against slips with 500 psi - good. Nipple down BOPE stack. Lift stack. Made rough cut on 7" casing. Set out cut off and BOPE stack. Dress stump. Set in and installed 11" x 7-1/16", 3M tubing head. Test tubing head to 2,000 psi for 10 minutes - good. Dumped and cleaned pits. Secured well. Released rig at 05:00 hrs. Tear out rig #4 and prepare to move rig.	
	Completion	
5/22/2013	Day 1. MIRU HLS NU lubricator hoist and wire-line truck. PU CCL Gamma Ray, RIH and tag at 2596'. Log up. Correlate with OH gamma ray. RIH guns and perf 6 HPF 60 degree phasing from 2462'-2454', 3 HPF 120 degree phasing from 2350'-2344', 3 HPF 2314'-2308'. Secure well. RDMO.	
5/28/2013	Day 2. Frac. Stage 1 and set RBP for Stage 2. Held safety meeting. Test lines to 3500 psi. Test good. Pre frac ISIP = 529 psi, FG = 0.65. Frac Stage 1 to completion as designed. ISIP = 915 psi FG = 0.817 psl/ft.	

5/28/2013 (continued) Avg. Rate = 31.6 bpm
 Avg. Press = 646 psi
 Total Propp = 250,060 lbs. 20/40 brown, with 4-5% Sandwedge tail-in. Flushed to top perf less one barrel. By-pass blender on flush. Call flush on 1 ppg on HP Densometer and begin step-down with 30 bbls remaining in flush. MIRU HLS RIH BP and set at 2254'. Test to 1500 psig. PU 4" slick-wall guns and perf 2180'-2200' 3 SPF 120 degree phasing. Secure well. #1

5/29/2013 Day 3. Frac Stage 2, set RBP, perforate and Frac. Stage 3.
 Held safety meeting. Test lines to 3500 psi. Test good. Pre frac ISIP = 380 psi, FG = 0.61. Frac Stage 2 to completion as designed.
 ISIP = 470 psi
 FG = 0.65 psi/ft.
 Avg. Rate = 31.3 bpm
 Avg. Press = 406 psi
 Total Propp = 120,124 lbs. 20/40 brown, with 4-5% Sandwedge tail-in.
 Flushed to top perf less one barrel. By-pass blender on flush. Call flush on 1 ppg on Densometer and begin step-down with 30 bbls. remaining in flush. Crew accidentally "staged to flush" early while on 6 ppg, but operationally went to flush at correct time. All sand was pumped and wellbore flushed correctly. #2
 PU BP RIH to 2150'. Set plug. POOH. Test good to 1500 psig. PU 4" slick-wall 10' guns. RIH and perf 3 SPF 120 degree phasing from 2110'-2120' and 2036'-2046'. POOH. Held safety meeting. Test lines to 3500 psi. Test good. Pre-frac ISIP = 443 psi, FG = 0.64. Frac Stage 3 to completion as designed.
 ISIP = 441 psi
 FG = 0.645 psi/ft.
 Avg. Rate = 32 bpm
 Avg. Press = 425 psi
 Total Propp = 162,221 lbs. 10/40 brown, with 4-5% Sandwedge tail-in. Flushed to top perf less one barrel. By-pass blender on flush. Call flush on 1 ppg on in-line Densometer and begin step-down with 30 bbls remaining.
 PU BP RIH to 1996'. Set BP. POOH test to 1500 psig. RIH with 4" slick-wall x 10' gun and perf 3 SPF 120 degree phasing from 1946'-1956'. POOH LD guns. All shots fired. PU CCL, 4" slick-wall x 4' gun and RIH, perf 3 SPF 120 degree phasing from 1864'-1868. #3

5/30/2013 Day 4. Work-over belts to be repaired. Belts broke on HAL sand conveyer. WO repair today. Belts repaired by 8 PM.

5/31/2013 Day 5. Continue frac. Frac Stage 4-5.
 Frac Stage 4. Held safety meeting. Test lines to 3500 psi. Test good. Pre frac ISIP = 317 psi, FG = 0.60. Frac Stage 4 to completion as designed.
 ISIP = 382 psi
 FG = 0.633 psi/ft.
 Avg. Rate = 30.5 bpm
 Ave. Press = 332 psi
 Total Propp = 262,371 lbs. 10/40 brown, with 4-5% Sandwedge tail-in.
 Flushed to top perf less one barrel. By-pass blender on flush. Call flush on 1 ppg on in-line densometer and begin step-down with 30 bbls remaining.
 RU HLS PU CCL and BP. RIH and set BP took 11 minutes for charge to go off, wait 3 minutes, pull up 5', go back down and tag plug at 1809'. POOH CCL and wire line. Close blind rams, hook up pump truck, test plug to 1500 psig, and held for 15 minutes. PU CCL 4" slick gun 20' long with 3 SPF at 120 degree phasing. Get on depth using CCL and CCL log and perf 1754'-1734'. #4

Frac Stage 5. Held safety meeting. Test lines to 3500 psi. Test good. Frac Stage 4 to completion as designed.
 ISIP = 378 psi
 FG = 0.65 psi/ft.
 Avg. Rate = 31.2 bpm.
 Avg. Press = 347 psi
 Total Propp = 194,184 lbs. 10/40 brown, with 4-5% Sandwedge tail-in.
 Flushed to top perf less one barrel. By-pass blender on flush. Call flush on 1 ppg on in-line densometer and begin step-down with 30 bbls remaining. RD HLS logging truck, lubricator and all equipment and move to JJJ-5.

6/1/2013 Day 6: MIRU work-over rig. Held safety meeting. Guy out hook up, circulate pump, and tally tubing. Secure location.

6/2/2013 Day 7. Arrive on location. Unload tools, bleed down, PU RH and RIH picking up tubing. Tagged sand at 1768'. Circulate to BP at 1810'. Latch on, circulate clean, POOH and down BP. RIH RH and tubing to 1925'. Circulate to BP at 1998'. Latch on, circulate clean. POOH down BP, PU RH and RIH to 1200'. Secure well. Moved crew to rig on JJJ-5. #3

6/3/2013 Day 8. Travelled to location, serviced rig. Bled well, 0 psi. Unloaded tools, circulated. Tag sand at 2120', circulate sand to 2120'. POOH with tubing. Laid down BP, made up retrieving head, RIH with tubing, tagged at 2195', sand cleaned out to 2253'. POOH with tubing, laid down BP, made up retrieving head. Rig in hole with tubing. Opened with ? shoe, tagged at 2540', cleaned out to 2893'. Let well clean up. Laid down 12 joints, landed donut. Intake at 2208'. Closed well in. Loaded tools until AM. #2

6/4/2013 Day 9. Bled well. Rig out working floor and stripped off BOP and frack head, put pro tree on. Picked up pum. RIH with rods, picking up rods off ground: 4' sub, 2kbar, 4 sub, 3 kbar, 4' sub, 67n rods, 18' subs. Space well out. Stroke pump good blow on and down. Closed well in. Load tools, took guy and unscrewed anchors. Riggged down, moved off. Job complete.

OG103
 (6/97/GSR/5
 M)

Printed on
 recycled paper.

SUBMIT IN DUPLICATE

Avg Press = 406 psi

Tot. Propp = 120,124 lbs 20/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on HP Densometer and begin step-down with 30 bbls remaining in flush. Crew accidentally "staged to flush" early while on 6 ppg, but operationally went to flush at correct time. All sand was pumped and wellbore flushed correctly.

PU BP RIH to 2150'. Set plug. POOH test good to 1500 psig. PU 4" slickwall 10' guns RIH and perf 3 SPF 120 deg. phasing from 2110'-2120' and 2036'-2046' POOH

Held PJSM. Test lines to 3500 psi. Test Good. Pre frac ISIP = 443 psi, FG = 0.64

Frac stage 3 to completion as designed

ISIP = 441 psi

FG = 0.645 psi/ft

Avg Rate = 32 bpm

Avg Press = 425 psi

Tot. Propp = 162,221 lbs 10/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

PU BP RIH to 1996' set BP. POOH test to 1500 psig. RIH with 4" slickwall x 10' gun and perf 3 SPF 120 deg. phasing from 1946'-1956'. POOH LD guns. All shots fired. PU CCL, 4" slickwall x 4' gun and RIH and perf 3 SPF 120 deg. phasing from 1864'-1868'

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

RU HLS PU CCL and BP RIH and set BP took 11 min for charge to go off wait 3 min pull up 5' go back down and tag plug at 1809' POOH CCL and wire line Close Blind rams hook up pump truck and test plug to 1500 psig and held for 15 min PU CCL 4" slick gun 20' long with 3 SPF at 120 deg phasing Get on depth using CCL and CCL log and perf 1754'-1734'

FRAC stage #5

Held PJSM. Test lines to 3500 psi. Test Good.

Frac stage 4 to completion as designed

ISIP = 378 psi

FG = 0.65 psi/ft

Avg Rate = 31.2 bpm

Avg Press = 347 psi

Tot. Propp = 194,184 lbs 10/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on 1 ppg on inline densometer and begin step-down with 30 bbls remaining.

RD HLS logging truck, lubricator and all equipment and move to JJJ-5

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE
L-5A	Diamond	3259	Breitburn	Dow Chanslor	6/3/2013

VENDORS NAME	DAILY COST	FAILURE :	Belts
Est RIG AND CREW	\$ 1,810.00	Day 7	
Pump	\$ 1,200.00	TODAYS COST	TODAYS HOURS
BOPE	\$ 1,500.00	\$ 73,560.00	
Rental equip	\$ 1,100.00	PREVIOUS COST	PREVIOUS HOURS
2 7/8' tbg	\$ 16,200.00	\$322,755.00	
3/4' rods and equip	\$ 4,200.00	CUMULATIVE COST	CUMULATIVE HOURS
Pumping unit and elec	\$ 47,550.00	\$396,315.00	0
Est. DAILY TOTAL	\$ 73,560.00		

TAGGED FILL 2596	KB	14	CASING : 7' 26#	LINER SIZE
RECOVERED :	TD		PBTD: 2619	LINER DEPTHS :
BAILER:			PERFS :	LINER SIZE
SCRAPER SIZE :	STOPPED :			LINER DEPTHS
PUMP MAKE PULLED:			PUMP SIZE : 2 1/2x2x36x18	
PUMP MAKE RAN :			PUMP SIZE : 2 1/2 x2x36x18	

TUBING DETAIL :				ROD DETAIL :			
Well Head Flange:		8-600		SIZE	AMOUNT	GRADE	GUIDES
Description	NUMBER	LENGTH	DEPTH	1 1/8x30'			
kb		14		3/4 rods	67	D	Molded 2 per
donut		0.85	14.85	Kbars	2		
2 7/8' tub	69	2161.89	2176.74	sub	4'		
pump shoe		0.65	2177.39	Kbars	3		
pump jacket		31.25	2208.64	sub	4'		

Summary	Start	330PM	Stop	830PM
---------	-------	-------	------	-------

Arrive at location Safety Meeting
 Bled well rig out working floor & striped off b.o.p & frack head tree on picked up pump R.I.H.W/rods picking up rods off ground
 4' sub 2kbar 4sub 3 kbar 4' sub 67 rods 18' subs space well out strok pump good biow on and down closed well in load
 tools took guy and unscrewed anchors rigged down move off job complet

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

BreitBurn

WELL CREW REPORTS

Mon

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE		
L-5A	Diamond	3253	Breitburn	Dow Chanslor	6/3/2013		
VENDORS NAME		DAILY COST	FAILURE :				
Est RIG AND CREW		\$ 5,210.00	Belts				
Pump		\$ 1,200.00	Day 7				
BOPE		\$ 1,500.00	TODAYS COST				
Rental equip		\$ 1,100.00	9,010.00				
			TODAYS HOURS				
			PREVIOUS COST				
			\$322,766.00				
			PREVIOUS HOURS				
			CUMULATIVE COST				
			\$331,766.00				
			CUMULATIVE HOURS				
			0				
Est. DAILY TOTAL		\$ 9,010.00					
TAGGED FILL 2596	KB	14	CASING : 7' 26#		LINER SIZE		
RECOVERED :	TD		PBTD: 2619		LINER DEPTHS :		
BAILER:			PERFS :		LINER SIZE		
SCRAPER SIZE :	STOPPED :				LINER DEPTHS		
PUMP MAKE PULLED:			PUMP SIZE :				
PUMP MAKE RAN :			PUMP SIZE :				
TUBING DETAIL :	Well Head Flange:	8-600	ROD DETAIL :				
Description	NUMBER	LENGTH	DEPTH	SIZE	AMOUNT	GRADE	GUIDES
kb		14					
donut		0.85	14.85				
2 7/8 tub	69	2161.89	2176.74				
pump shoe		0.65	2177.39				
pump jacket		31.25	2208.64				
Summary				Start	6am	Stop	530pm

traveled to location ser. Rig. Bled well o psi unloaded tools c con. Cir. Sand tagged 2120 CIR. SAND TO 2120 P.O.O.H.W/tubbing lay c down b/p made up retrieving head R.I.H.W/tubbing tagged at 2195 sand cleaned out to 2253 p.o.o.h.w/tubbing layed B/P down made up retev.head R.I.O.W/ TUI bbing opened w/t/shoe tage at 2540 cleaned out to 2893 let well clean up lady 12 jt down landed donut INTAKE at 2208 closed well in loaded tool untill am

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

EXHIBIT "6"

Drilling and Completion Synopsis

Well: L-12		Operation	Day	Date	Comment
	1	Drilling	4/1/2013	MIRU drilling rig, drill surface hole section to 1208', TD.	
	2	Drilling	4/2/2013	Run and cement 9-5/8" casing. Cement with 570 ft3, circulated 5 bbls cement to surface.	
	3	Drilling	4/3/2013	Install wellhead, NU BOPE, drill production hole section to 2440', TD.	
	4	Drilling	4/5/2013	Log well, run and cement 7" production casing, cement with 456 ft3, did not circulate to surface. RR. Lost returns during last 5 bbls of displacement.	
Completion	1		5/22/2013	MIRU wireline unit. Perforate 2316' - 2308', 2084' - 2078', 2036' - 2030'. Rig down wireline unit.	
	2		5/27/2013	Frac interval, stage 1. MIRU wireline unit, ran in hole with bridge plug #1 and set at 1965' plug failed. Ran in hole with bridge plug #2 and set at 1950', plug failed. Ran in hole with bridge plug #3 and set at 1929'. Perforate 1900' - 1920' Frac interval, stage 2. MIRU wireline unit, ran in hole with bridge plug #4 and set 1865'. Perforate 1820' - 1830', 1738' - 1728'. Frac interval, stage 3. Ran in hole with bridge plug #5 and set at 1693', perforate 1658' - 1648', 1570' - 1566'. Frac interval, stage 4. Ran in hole with bridge plug #6 and set at 1518', perforate 1470' - 1492'. Frac interval, stage 5.	
	3		5/28/2013	MIRU work over unit, run in hole, tag at 1445', clean out and tag bridge plug at 1518' recovered bridge plug #6. Run in hole, tag at 1575', clean out and tag bridge plug at 1693', recover bridge plug #5. Run in hole, tag at 1874', clean out and tag bridge plug at 1865' recover bridge plug #4.	
	4		5/29/2013	Bleed pressure off well. Run in hole, tag at 1890', clean out and tag bridge plug at 1929', recover bridge plug #3. Run in hole, tag at 1890, clean out and tag bridge plug at 2114', recovered bridge plug #2. Run in hole, tag at 2120', clean out and tag bridge plug at 2122'. Recover bridge plug #1.	
	5		5/30/2013	Bleed pressure off well. Put well on pump, rig down work over unit.	
	7		5/31/2013		

Note: there is an extra bridge plug that was identified in this well. I can only count six bridge plugs in the completion write-up, but seven were recovered.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator BreitBurn Operating, LP (B6131) Field Belridge, South County Kern
Well "Dow Chanstor" L-12 Sec. 12 T. 28S R. 20E M.D. B.&M.
A.P.I. No. 030-50426 Name Brad Pierce Title Agent
(Person submitting report) (President, Secretary, or Agent)
Date 10/9/2013
(Month, day, year) Signature _____
Address 515 S. Flower St., Suite 4800 Los Angeles, CA 90071 Telephone Number (213) 225-5900

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during re-drilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, balling tests, and initial production data.

Date	Permit No. P413-1943	(Note: All depths refer to KB, which is 14' above mat.)
	<u>Drill Well</u>	
4/1/2013	Move in and rig up Kenai Rig #4 on well number L-12. Spot sub structure, mud, pumps, plf, catwalk, and center rig over the hole. Raise and pin mast. Begin to rig up the rig floor. Set in and weld on 13-5/8" 3M starting flange with 6" diverter outlet. Set in shakers and mud cleaner. SDFN.	
4/2/2013	Held safety meeting. Scope and pin mast. Rig up Kenai Rig #4. Perform rig up check. Set in and nipple up 13-5/8" 3M annular with 6" diverter. Mix mud. Pick up and made up Scientific directional tools -- 7/8" motor (0.16 rev/gal) with MWD and 12-1/4" MT bit dressed with 3-16 and 1-12 jets. TFA: 0.69. Directional drill and survey from 54' to surface hole TD at 1,208' -- 600 GPM, 176 RPM, 10K WOB (82/hr average ROP). Circulate hole clean and condition mud for wiper.	
4/3/2013	Wipe hole to directional tools. Trip in hole and spot ream from 214' to 420' and from 630' to 670'. Continue in hole to bottom, no obstructions or fill. Circulate hole clean and condition mud for casing. Pulled out of hole. Laid down 8" directional tools. Break bit. Clean floor. Held safety meeting with B&L casing. Rig up long equipment. Run 32 joints of 9-5/8", 36#, J-55, LT&C casing with shoe set at 1,208'. Rig up cement head. Circulate hole clean. Held safety meeting with Halco cements for the cement job. Pressure test pumps and lines to 2,000 psi -- good. Pumped 20 bbls of water ahead, followed by 101 bbls (570 cu. ft., 250 sacks) of 12.5 ppg EconoCem cement with a 2.28 yield and a 12.36 water requirement at 5 BPM. Stopped pumping. Dropped wiper plug and displaced with 90.5 bbls of mud. Bumped plug at 500 psi over. Checked floats -- good. Cement in place at 18:50 hrs. Full returns and pipe reciprocation. 5 bbls cement to surface. Slack off casing. Rig down cements. Drain and wash stack. Nipple down 13-5/8" BOPE and diverter system. Rough cut 9-5/8" casing. Lay out same. Cut off and remove starter head. Dress stump. Install 11" 3M SOW wellhead with welders. Test weld at 1,000 psi -- good. Nipple up 11" 3M Class II BOPE with choke. Gather and strap. Pick up and made up 6-3/4" directional tools with 7/8" motor (0.28 rev/gal) set at 1.5 deg and 8-3/4" MT bit dressed with 3/16" jets. Scribe in and orientate tools. Trip in hole and tag Insert at 1,169'.	
4/4/2013	Fill pipe. Pressure test casing to 1,000 psi for 20 minutes -- good. Pressure test BOPE, choke, and all valves to 1,000 psi -- good. Drill out insert and shoe track, new hole from 1,208' to 1,235'. Circulate hole clean and pull out of hole to install PDC bit. Found housing on mud motor cracked. Laid down mud motor. No back up on location. Wait on new motor from town (offload and strap casing -- service rig). Pick up and made up new directional tools. Orient and scribe same. Trip in hole to bottom. No obstructions. Directional drill and survey vertical well from 1,235' to 2,440' -- 10 -- 15 WOB, 230 RPM's at the bit, 570 GPM, 1700 psi (141/hr average ROP). Circulate hole clean for wiper. Wipe hole to shoe -- free. Trip in hole to bottom. No obstructions or fill. Circulate hole clean and condition mud for log run. Pull out of hole for log run. Break bit. Laid down directional tools.	
4/5/2013	Laid down directional tools. Clean rig floor for log tool rig up. Held safety meeting with Halco loggers. Log well. 1 -- run trip combo. Loggers depth: 2,444'. Max temperature at 122. Rig down loggers. Made clean out run to bottom. No fill or obstructions. Circulate the hole clean. Pulled out of hole and laid down drill pipe and collars. Break bit. Held safety meeting with B&L casing crew. Run 83 joints, 7", 26#, LT&C casing with shoe set at 2,440'. Installed cement head. Rig down tongs. Held safety meeting with Halco cements. Circulate hole clean and condition mud for cement job. Pressure test pumps and lines to 2,250 psi -- good. Pump 20 bbls of water ahead, followed by 81 bbls (456 cu. ft., 200 sacks) of 12.5 ppg EconoCem cement with a 2.28 yield and a 12.36 water requirement at 5 BPM. Stopped pumping. Dropped wiper plug and displaced with 91.8 bbls filtered lease water. Bumped plug 500 psi over. 780 psi final pressure. Checked floats -- good. Cement in place at 22:13 hrs. Full returns and pipe reciprocation during job. No cement to surface. Most all water back. Lost returns during last 5 bbls of displacement. Dropped and set casing slips with 70K string weight, 15 over. Energized and set slip seals. Test against slips with 500 psi -- good. Nipple down BOPE stack. Lift stack. Made rough cut on 7" casing. Set out cut off and BOPE stack. Dress stump. Set in and install 11" x 7-1/16", 3M tubing head. Test tubing head to 2,000 psi for 10 minutes -- good. Secure well. Released rig at 03:00 hrs. Tear out Kenai rig #4 and prepare for move.	
	<u>Completion</u>	
5/22/2013	Day 1. MIRU HLS NU lubricator hoist and wire-line truck. PU CCL Gamma Ray, RIH and tag at 2332'. Log up. Correlate with OH gamma ray. RIH guns and perf 6 HPF from 2316'-2308', 3 HPF from 2084'-2078', 3 HPF 2036'-2030'. Secure well. RDMO.	

5/27/2013

Day 2. MIRU HLS. Frac Stage 1 pumped to completion by design. Test lines to 3500' psi. Test good.
ISIP = 572 psi
Avg. Q = 32 bpm
Avg. P = 447 psi
Total Propp = 251,326 bbls 20/40 brown, with 4-5% Sandwedge tail-in.
FG = 0.696 psi/ft
Flush to top less one barrel.

RIH with BP set at 1965'. Test failed. RIH set BP at 1950'. Test failed. RIH set BP at 1929'. Tested to 1500 psig, held for 15 minutes. PU 20' 4' guns, RIH, perf 3 SPF from 1900'-1920'.

Frac Stage 2 to completion as designed. Test lines to 3500 psi. Test good.

ISIP = 401 psi
Avg. Q = 32 bpm
Avg. P = 338 psi
Total Propp = 120,543 lbs. 20/40 brown, with 4-5% Sandwedge tail-in.
FG = 0.643 psi/ft.
Flush to top less one barrel.

RIH with BP and set at 1865'. PU 4' guns and perf 3 SPF from 1820'-1830' and 3 SPF from 1738'-1728'.

Frac Stage 3 to completion. Test lines to 3500 psi. Test good.

ISIP = 445 psi
Avg. Q = 32 bpm
Avg. P = 347 psi
Total Propp = 160,006 lbs. 10/40 brown with 4-5% Sandwedge tail-in.
FG = 0.69 psi/ft.

Flush to top less one barrel.

RIH with BP and set at 1693', test to 1500 psig. PU 4' guns and perf 3 spf from 1658'-1648' and 1570'-1566'. Secure well.

5/28/2013

Day 3. Test lines to 3500 psi. Test goo. Frac Stage 4 to completion as designed. Pre-frac ISIP = 414 psi, Pre-frac FG = 0.69 psi/ft. Did not get good B/D for FET.

ISIP = 637 psi
FG = 0.83 psi/ft.
Avg. Rate = 31.3 bpm
Avg. Press = 435 psi

Total Propp = 262,000 lbs. 10/40 brown, with 4-5% Sandwedge tail-in.

Flushed to top perf less one barrel. By-pass blender on flush. Call flush on HP Densometer and begin step-down with 30 bbls remaining in flush. RU HLS RIH and set BP at 1518'. Test to 1500 psig. RIH 4' guns and perf 3 SPF from 1470'-1492'. RDMO HLS.

Frac Stage 5 to completion as designed. Pre-frac ISIP = 316 psi, Pre-frac FG = 0.646 psi/ft. Did not get good B/D for FET.

ISIP = 416 psi
FG = 0.714 psi/ft
Avg. Rate = 31.7 bpm
Avg. Press = 325 psi

Total Propp = 192,838 lbs. 10/40 brown, with 4-5% Sandwedge tail-in.

Flushed to top perf less on barrel. By-pass blender on flush. Call flush on HP Densometer and begin step-down with 30 bbls remaining in flush. Observed frac extension (1/8 - 1/4 net press slope) on 6 ppg and 8 ppg. RD frac lines and RU on next well pair, L-9A and L-5.

5/29/2013

Day 4. MIRU. Held safety meeting. PU 2 7/8" tubing and RH. RIH to sand at 1445'. Circulate to BP at 1518'. Circulate clean. POOH DN BP. RIH tubing and RH to sand at 1575'. Circulate to BP at 1693'. Circulate clean. POOH DN BP. RIH tubing and RH to sand at 1874'. Circulate to BP at 1865'. Circulate clean. POOH DN BP. RIH tubing and RH to 1000'. Secure well.

5/30/2013

Day 5. Held safety meeting. Bleed pressure off well. Continue in hole with tubing and retrieving head. Tag sand at 1890'. Circulate hole and clean out to BP at 1929'. Circulate clean. POOH DN BP. RIH tubing and RH to sand at 1890'. Circulate to BP at 2114'. Circulate clean. POOH DN BP. RIH tubing and RH to sand at 2120'. Circulate to BP at 2122'. Circulate clean. POOH DN BP. RIH tubing and RH to sand at 2162'. Circulate to BP at 2208'. Circulate clean. POOH DN BP. Note: Bottom three plugs had moved from original set place. RIH with tubing tail joint and pump shoe to 2280'. Tag sand, circulate and clean out to 2330'. Pump gel pill and circulate well clean. Pull and down tubing to 2114'. Land tubing. Secure well.

5/31/2013

Day 6. Held safety meeting. Bleed pressure off well. RD BOPE and rig floor NU tree. PU pump stabilizer bars, sinker bars, and 3/4" guided rods and 1 1/8" polished rod and RIH in hole. Space and seal pump. Hook up flow line and open to gathering system. Well not flowing. Waiting on pumping unit. RDMO. Clean location. Complete.

OG103
(6/97/GSR/5
M)

Printed on
recycled paper.

SUBMIT IN DUPLICATE

RIH with BP set at 1965 test failed RIH set BP at 1950 test failed RIH set BP at 1929
Tested to 1500 psig held for 15 Min PU 20' 4" guns RIH Perf 3 spf from 1900'-1920'

Frac stage 2 to completion as designed. Test lines to 3500 psi. Test Good.

ISIP: 401 psi

Avg Q: 32 bpm

Avg P: 338 psi

Tot propp: 120,543 lbs 20/40 brown, with 4-5% Sandwedge tail-in

FG: 0.643 psi/ft

Flush to top less one barrel.

RIH with BP set at 1865' PU 4' guns and perf 3 spf from 1820'-1830' and 3 spf from 1738'-1728'

Frac stage 3 to completion. Test lines to 3500 psi. Test Good.

ISIP: 455 psi

Avg Q: 32 bpm

Avg P: 347 psi

Tot propp: 160,006 lbs 10/40 brown, with 4-5% Sandwedge tail-in

FG: 0.69 psi/ft

Flush to top less one barrel.

RIH with BP set at 1693' and test to 1500 psig. PU 4' guns and perf 3 spf from 1658'-1648' and 1570'-1566' Secure Well

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

Tot. Propp =262,000 lbs 10/40 brown, with 4-5% Sandwedge tail-in
 Flushed to top perf less one barrel. Bypass blender on flush. Call flush on HP Densometer and begin step-down with 30 bbls
 RU HLS RIH and set BP at 1518' test to 1500 psig RIH 4" guns and perf 3 SPF from 1470'-1792' RDMO HLS

Frac stage 5 to completion as designed. Pre-Frac ISIP = 316 psi, Pre-frac FG =0.646 psi/ft. Did not get good B/D for FET.
 ISIP = 416 psi

FG = 0.714 psi/ft

Avg Rate = 31.7 bpm

Avg Press = 325 psi

Tot. Propp =192,838 lbs 10/40 brown, with 4-5% Sandwedge tail-in

Flushed to top perf less one barrel. Bypass blender on flush. Call flush on HP Densometer and begin step-down with 30 bbls

Observed frac extension (1/8 - 1/4 net press slope) on 6 ppg an 8 ppg.

RD frac lines and RU on next well pair, L-9A & L-5.

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

WELL NAME L-12		RIG NO. Diamond	Service Report Num 3250	COMPANY Breitburn	LEASE Dow Chanslor	DATE 5/30/2013
VENDORS NAME			DAILY COST	FAILURE : Rod Part		
Est RIG AND CREW			\$ 6,235.00	Day 5		
Pump			\$ 1,200.00	TODAYS COST		TODAYS HOURS
Rentals			\$ 1,100.00	\$ 8,535.00		
				PREVIOUS COST		PREVIOUS HOURS
				\$ 342,372.68		
				CUMULATIVE COST		CUMULATIVE HOURS
				\$ 350,907.68		0
Est. DAILY TOTAL			\$ 8,535.00			
TAGGED FILL 2332		KB	14	CASING : 7' 26#		LINER SIZE
RECOVERED :		TD		PBTD: 2440		LINER DEPTHS :
BAILER:				PERFS :		LINER SIZE
SCRAPER SIZE :		STOPPED :				LINER DEPTHS
PUMP MAKE PULLED:				PUMP SIZE :		
PUMP MAKE RAN :				PUMP SIZE :		
TUBING DETAIL :		Well Head Flange:	8-600	ROD DETAIL :		
Description	NUMBER	LENGTH	DEPTH	SIZE	AMOUNT	GRADE
KB			14			
2 7/8' J55	66	2067.51	2081.51			
Pump Shoe	1	0.65	2082.16			
2 7/8' J55	1	31.18	2113.34			
Summary				Start	6:00	Stop
						8:00p

Day 5: Safety meeting Bleed pressure off well
 Continue in hole with tbg and retrieving head tag sand at 1890' circ and clean out to BP at 1929 circ clean POOH DN BP
 RIH tbg and RH to sand at 1890" circ to BP at 2114' circ clean POOH DN BP
 RIH tbg and RH to sand at 2120" circ to BP at 2122" circ clean POOH DN BP
 RIH tbg and RH to sand at 2162" circ to BP at 2208' circ clean POOH DN BP
 NOTE: Bottom three plugs had moved from original set
 RIH with tbg tail jt and pump shoe to 2280' tag sand circ and clean out to 2330' pump gel pill and circ well clean
 Pull and down tbg to 2114 Land tbg secure well
 Incomplete

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE
L-12	Diamond	3263	Breitburn	Dow Chanslor	6/7/2013

VENDORS NAME		DAILY COST	FAILURE :	Sanded	
Est RIG AND CREW		\$ 3,780.00	Day 8		
Pump		\$ 1,200.00	TODAYS COST		TODAYS HOURS
Rentals			\$ 4,295.00		
			PREVIOUS COST		PREVIOUS HOURS
			\$355,907.68		
			CUMULATIVE COST		CUMULATIVE HOURS
			\$355,202.68		0
Est. DAILY TOTAL		\$ 4,980.00			

TAGGED FILL 2332	KB	14	CASING : 7' 26#	LINER SIZE
RECOVERED :	TD	2440	PBTD: 2440	LINER DEPTHS :
BAILER:			PERFS : 1470-2316	LINER SIZE
SCRAPER SIZE :	STOPPED :			LINER DEPTHS

PUMP MAKE PULLED: Midas	PUMP SIZE : 2.5x2x36x18
PUMP MAKE RAN :	PUMP SIZE :

TUBING DETAIL : Well Head Flange: 8-600				ROD DETAIL :			
Description	NUMBER	LENGTH	DEPTH	SIZE	AMOUNT	GRADE	GUIDES
KB			14	1 1/8" x 22' polished rod			
2 7/8' J55	47	146640	146654	3/4"	10'6'	D	
Pump Shoe	1	0.65	1481.05	1" K bars	100	D	
2 7/8' J55	1	31.18	1512.23	4" stabilizer bar	2	D	4 per molded
				3/4"	48	D	2 per molded
Perfs. @ 1470-2316							
ED @ 2440							

Summary	Start	6:00am	Stop	6:00pm
---------	-------	--------	------	--------

Arrive at location Safty Meeting
 moveed cir. Pump bled well to sump rig up cir. Pump installed BOP killed well poohw/ yub laying 19 jts. Found api ring wased replaced shoe RIHW/ tubs. Landed donut striped BOP off strocked pump ok RIHW/rods layed 20 rods down rig out cir pump respase well put h/h on pressed to 250 ok rigged down job complet

FOREMAN :	D.Weese	RIG SUPERVISOR:	D.Weese
Unit Make & Size			
Gear Box Size			

EXHIBIT "7"



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

MAY 02 2014

Ms. Tina Darjazanie
BreitBurn Management Company, LLC
515 South Flower Street, 48th Floor
Los Angeles, CA 90071

GROUNDWATER MONITORING PLAN EXEMPTION; BREITBURN OPERATING L.P. - BREITBURN DOW CHANSLOR LEASE IN THE NORTH AND SOUTH BELTRIDGE OIL FIELDS, KERN COUNTY, CA

Dear Ms. Darjazanie:

This letter is in response to your *Groundwater Monitoring Plan Exemption; BreitBurn Operating L.P. – BreitBurn Dow Chanslor Lease in the North and South Belridge Oil Fields, Kern County, CA*, received on April 24, 2014. BreitBurn Management Company, LLC (BreitBurn) is requesting an exemption from the requirement to submit a groundwater monitoring plan for the BreitBurn Dow Chanslor Lease in the North and South Belridge Oil Fields (Dow Chanslor Lease).

The Division of Oil, Gas, and Geothermal Resources' Interim Well Stimulation Regulations allow well operators to seek written concurrence from the State Water Resources Control Board where the operator can demonstrate the absence of protected water as the basis for not conducting groundwater monitoring (Cal. Code Regs. title 14, § 1783.4).

The BreitBurn submittal was signed and sealed by a California registered professional geologist, and included a soil boring log, detailed geologic cross-sections that depicted all geologic units and hydrocarbon zones, and geophysical logs. The submitted information indicated the absence of protected water between the ground surface and the hydrocarbon zone, within the lateral limits of the Diatomite development boundaries of the Dow Chanslor Lease.

Based upon review of the information provided in your submittal, we hereby concur with your determination. If information in the future indicates the presence of protected waters, the Water Boards will once again review this determination.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, Ca 95812-0100 | www.waterboards.ca.gov



EXHIBIT 7

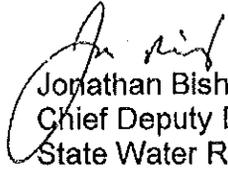
Ms. Tina Darjzanie

- 2 -

If you have any questions pertaining to this issue, please contact Mr. John Borkovich at (916) 341-5779.

Sincerely,

602 5 0 YAK

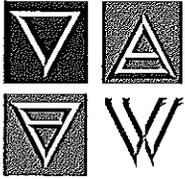

Jonathan Bishop
Chief Deputy Director
State Water Resources Control Board

cc: (via electronic copy and First class mail)

Clay Rodgers
Assistant Executive Officer
Central Valley Regional Water Quality
Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Vincent Agusiegbe
SB4 Program Manager
Division of Oil, Gas & Geothermal Resources
801 K Street, MS 18-00
Sacramento, CA 95814-3530

EXHIBIT "8"



WATERSTONE ENVIRONMENTAL, INC.

2936 E. GORONADO ST * ANAHEIM, CA 92806
714-414-1122 * FAX: 714-414-1166
EMAIL: NBERESKY@WATERSTONE-ENV.COM

April 21, 2014

VIA EMAIL
mbrock@breitburn.com

Martha Brock
EH&S Manager
BreitBurn Management Company LLC, Region II &
Pacific Coast Energy Company
515 S. Flower Street, Suite 4800
Los Angeles, CA 90071

**RE: EXEMPTION FROM GROUNDWATER MONITORING PLAN REQUIREMENTS FOR
HYDRAULIC FRACTURING PER SB 4 - BREITBURN DOW CHANSLOR LEASE IN THE
NORTH AND SOUTH BELRIDGE OIL FIELDS, KERN COUNTY, CA**

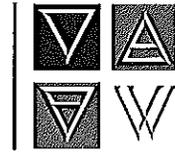
Dear Ms. Brock:

The purpose of this document is to describe the results of groundwater research including information from a 50-foot boring performed on behalf of BreitBurn Operating L.P. (BreitBurn) by Waterstone Environmental, Inc. (Waterstone) for the oil-productive area near and underlying BreitBurn's 320-acre Dow Chanslor Lease in the North and South Belridge Oil Fields near Lost Hills in Kern County, CA (Subject Property). Additionally, a description of the proposed hydraulic fracturing (fracking) project is provided. Figures 1 and 2 show the Subject Property location which consists of the S ½ of the S ½ of Section 1 and the N ½ of the N ½ of Section 12, T28S-R20E (Mount Diablo Baseline and Meridian). This document replaces the April 1, 2014 submittal based on revisions suggested by the State Water Resources Control Board (SWRCB) in a phone call with BreitBurn personnel on April 21, 2014.

BreitBurn has requested that Waterstone perform groundwater research for the area to determine whether BreitBurn's planned well stimulation of 32 wells on the Subject Property by fracking is subject to groundwater monitoring requirements described in the state of California Senate Bill SB4 approved by Governor Brown on September 20, 2013 and administered by the state of California Division of Oil, Gas and Geothermal Resources (DOGGR) and the SWRCB. In addition, per a request made by the SWRCB, Waterstone recently logged a 50-foot deep boring in the oil field to evaluate the soil column for the presence of groundwater.

The result of Waterstone's research indicates BreitBurn's planned fracking project qualifies for an exemption from the Groundwater Monitoring Plan requirements specified in Public Resource Code section 3160. This document provides a discussion of background information for the area, a description of the project and information on groundwater beneath the Subject Property.

EXHIBIT 8



Field History and Operating Area

The Subject Property is located in both North and South Belridge Field as shown on Figure 3. BreitBurn purchased the Subject Property in November 2012 from American Energy Operations (AEO).

Figure 3 shows the areal extent of the Belridge oil field which is located 45 miles northwest of Bakersfield. The South Belridge field covers some 4,800 productive acres while the North Belridge field covers an additional 900 acres. The light oil Diatomite Pool is overlain by the heavy oil sands of the Tulare Formation.

The South Belridge field was discovered in April 1911 by the newly-formed Belridge Oil Company. Development of the South Belridge field was active through the early 1920s and with less activity until World War II. By the early 1950s, the field had been drilled to its current boundaries, with the heavy-oil-producing sands of the Tulare Formation as the primary producing zone.

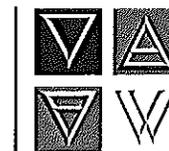
In the North Belridge Field, the Diatomite Pool was discovered in 1912 by several wells producing from the naturally fractured diatomite. During the late 1930s deeper sub-Monterey reservoirs were discovered and developed. The development history of the Diatomite Pool in North Belridge is generally similar to that in South Belridge.

During the late 1970s, hydraulic fracturing techniques were tested in the diatomaceous Opal-A to make Diatomite development commercially viable. Mobil completed the first successful hydraulically fractured diatomite well in 1977. Subsequently, the Diatomite pool was actively developed by all operators, completing wells with multiple hydraulic fractures.

By 1984, reservoir compaction and the resulting surface subsidence had begun to impact producing operations because of wellbore damage and well failures. Full-scale water injection pressure maintenance operations were therefore implemented in South Belridge in 1986 and were ultimately expanded throughout North and South Belridge from the late 1980's to the late 1990's. Since acquiring the lease, BreitBurn has continued developing the diatomite and managing the necessary water injection and pressure maintenance to minimize subsidence of the formation.

Project Description

BreitBurn is pursuing approval from DOGGR to complete and frack 32 wells in North and South Belridge as listed on the attached Table 1 and shown on Figure 4. This project is a continuation of the ongoing development of the diatomite reservoirs in Belridge. Other operators are performing similar procedures including Aera Energy who reportedly plans to drill and frack approximately 500 wells per year in the two oil fields. This information is



contained in an Aera Energy report¹ to the RWQCB dated February 5, 2014 entitled *Groundwater Monitoring Exemption Justification for Hydraulic Fracturing Well Stimulation Treatments, North and South Belridge Oil Fields – Kern Count, California* that describes groundwater in the area of Aera's leases some of which adjoin the Subject Property to the north and south (Aera's Submittal).

The Subject Property has over 120 active producers and 60 active injectors and has been operated by stimulating the reservoir since development began in the late 1970's. Both fracking and subsidence mitigation are critical to economically operate the field. The procedures used to mitigate wellbore subsidence have vastly improved since waterflood injection began in the field in the 1980's and the most up-to-date methods are used by BreitBurn. Last year, 16 production wells were drilled by BreitBurn, completed, and successfully stimulated by fracking.

The field is being developed in a line-drive pattern and with an approximate 2:1 producer to injector ratio. A typical completion will consist of 14" conductor cemented in at $\pm 50'$, 9-5/8" casing set at ± 1000 , and a 7" long string cemented in at $\pm 2400 - 3100'$ depending on the deepest target interval. All strings are cemented to the surface.

Fractures typically have short half-lengths of 150 feet or less which has been demonstrated by fracture modeling, tracers, and the current development well spacing. Fracture height is largely dictated by stress, but generally is less than 200 feet. Model stresses, logs, and experience indicate a good upper boundary at the top of the Opal diatomite isolating it from the San Joaquin, Etchegoin, or Tulare formations.

The typical fracture treatment is freshwater base fluid, with guar-based cross-linked fracturing fluid serving as the proppant carrying mechanism. A slick-water pad is typically followed by cross-linked proppant laden stages with concentrations as high as 10 ppg, concluded by flushing the wellbore with freshwater. All flowback water is processed and re-injected into the waterflood using the same procedures used to manage produced water from the field's oil production. The proposed depth of well stimulation for each well to undergo fracking is as follows:

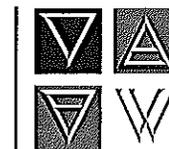
Opal A wells : 1400' – 2200'
Opal CT wells : 1400' – 2900'

The source of the water to be used for well stimulation is from the West Kern Water District.

Groundwater beneath the Subject Property

Based on Waterstone's research, discussed in this Section, BreitBurn's planned fracking project on the Subject Property qualifies for an exemption from the Groundwater Monitoring Plan requirements specified in Public Resource Code section 3160 which states:

¹ Aera's Submittal: p. 2, Section 3, para. 1



“Monitoring is not required for oil and gas wells where the wells do not penetrate groundwater of beneficial use, as determined by a regional water quality control board, or do not penetrate exempt aquifers pursuant to Section 146.4 of Title 40 of the Code of Federal Regulations.”²

Section 146.4 of Title 40 of the Code of Federal Regulations defines an exempt aquifer as follows:

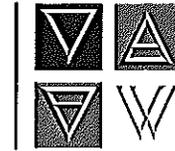
- (a) It does not currently serve as a source of drinking water; and
- (b) It cannot now and will not in the future serve as a source of drinking water because:
 - (1) It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible.
 - (2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;
 - (3) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or
 - (4) It is located over a Class III well mining area subject to subsidence or catastrophic collapse; or
- (c) The total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system.

The SWRCB requested that BreitBurn submit additional information by performing a 50-foot boring in the fracking area, logging any encountered groundwater, and sampling any encountered groundwater with analysis for total dissolved solids. The 50-foot deep boring was performed on March 24, 2014 using a solid stem auger (location is shown on Figure 4). The boring was observed and supervised by a Waterstone Principal Hydrogeologist, Richard Vogl, who is registered in the State of California as a Professional Geologist, Certified Engineering Geologist, and Certified Hydrogeologist. Mr. Vogl collected samples at frequent intervals and produced the log of the boring that is included in Attachment A.

No groundwater was encountered at any depth through the entire 50-feet of the boring. All soil from surface to 43 feet was noted to be slightly moist and the final 7 feet were dry. Therefore, no water sample was collected for analysis.

Groundwater information is also available that describes subsurface characteristics in the vicinity of the Subject Property from an ExxonMobil lease located 2 miles to the south (see

² The absence of protected water as described in CFR Title 40 Section 146.4 is viewed as a condition for exemption from the Groundwater Monitoring Plan in SB 4 when agreed to by the Regional Water Quality Control Board. (Source: <http://www.conservation.ca.gov/dog/Documents/Final%20Interim%20Regulations%20with%20Highlights.pdf>)



location shown in Attachment B-Figure 3). Following are excerpts regarding geologic setting and groundwater for this nearby lease as stated by the RWQCB in Order R5-2013-0061 entitled *Waste Discharge Requirements For ExxonMobil Production Company for Post-Closure Maintenance And Corrective Action, Hill Lease Surface Impoundments, South Belridge Oil Field, Kern County*:

9. The South Belridge Oil Field is on the west side of the San Joaquin Valley, approximately 45 miles west-northwest of Bakersfield, in Kern County.

10. The field is on the Antelope Plain, an alluvial piedmont with coalescing alluvial fans from the Temblor Range to the west. The region slopes east towards the San Joaquin Valley.

11. The land on the Hill Lease is used exclusively for oil and gas production. Adjacent land to the north, south, and east is used for oil and gas production.

12. Adjacent land to the west is primarily used as a commercial oilfield disposal facility permitted by Kern County. Non-hazardous oilfield production wastewater is injected at the facility into Class II disposal wells permitted by the California Division of Oil, Gas, and Geothermal Resources (CDOGGR). Solids temporarily stockpiled on concrete drying pads at the facility are transported to permitted landfills.

13. The Lease is in the South Valley Floor Hydrologic Unit, Antelope Plain Hydrologic Area (No.558.60), as depicted on interagency hydrogeologic maps, prepared by the Department of Water Resources in August 1986.

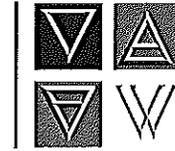
17. The Lease is in the Kern County Basin Hydrologic Unit, Detailed Analysis Unit 259. The designated beneficial uses of the groundwater, as specified in the Basin Plan, are municipal and domestic supply (MUN), agricultural supply (AGR), and industrial service supply (IND).

21. At the Lease and adjoining section to the north the stratigraphy consists of the following geologic units. The youngest unit is Alluvium consisting of alternating sand, silt, and clay. Within and at the base of the Alluvium is a sand layer designated as the 22K Sand. Above the 22K Sand is the Alluvial Clay. Below the 22K Sand is the Corcoran Clay Equivalent (CCE), which was unconformably deposited on the underlying Tulare Formation of Pleistocene age....

23. Groundwater is present in the Tulare Formation, 22K Sand, and overlying Alluvium as shallow perched groundwater, and part of a regional aquifer system. The regional aquifer system is unconfined to semi-confined above the CCE, and confined below the CCE.

In addition, Aera Class II disposal wells in the Tulare zone exist in the area, shown as yellow triangles along the eastern margin of South Belridge in Attachment B, Figure 3.

The location of cross section A-A' on the Subject Property is shown on Figure 4 and included as Figure 5. Figure 5 shows the logs for the selected wells indicating the presence of "air sands" (unsaturated) above the Tulare formation. Other cross sections of the Belridge oil fields



that are part of Aera's Submittal and are representative of the conditions across the oil-productive anticline are included in Attachment B.

Conclusions

BreitBurn's planned fracking project on the Subject Property qualifies for an exemption from the Groundwater Monitoring Plan requirements specified in Public Resource Code section 3160 which states:

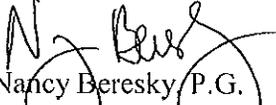
"Monitoring is not required for oil and gas wells where the wells do not penetrate groundwater of beneficial use, as determined by a regional water quality control board, or do not penetrate exempt aquifers pursuant to Section 146.4 of Title 40 of the Code of Federal Regulations."

There is no groundwater beneath the Subject Property as evidenced by the following information previously discussed:

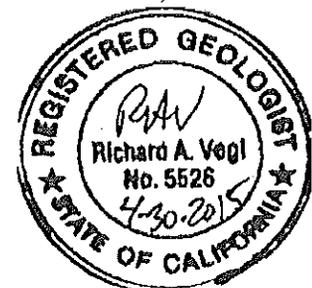
- There is no groundwater between the surface and 50 feet in depth in the project area per the boring log provided in Attachment A.
- The first encountered fluid-bearing unit above the productive limits of the Diatomite zone is the hydrocarbon-bearing segment of the Tulare Formation.
- Figure 5 shows the logs for wells on the Subject Property indicating the presence of "air sands" (unsaturated) above the Tulare formation on the Subject Property.

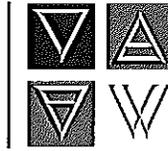
If you have any questions, please call Nancy or Richard at (714) 414-1122.

Sincerely,


Nancy Beresky, P.G.
Managing Principal Hydrogeologist
Waterstone Environmental, Inc.


Richard A. Vogl, P.G; C.E.G; C.Hg.
Principal Hydrogeologist
Waterstone Environmental, Inc.





- Attachments: Table 1 – Wells to be Hydraulically Fractured
Figure 1 – Site Location Map
Figure 2 – BreitBurn Dow Chanslor Lease Location
Figure 3 – North and South Belridge Oil Field Structure
Figure 4 – Well Locations to be Fracked
Figure 5 - Cross Section A-A' on the Subject Property
Attachment A – Boring Log for 50-Foot Boring
Attachment B – Index Map and Aera Cross Sections
A-A' through D-D'

Table 1
Proposed Order of Wells for Hydraulic Fracture
BreitBurn Dow Chanslor Lease, Kern County, CA

<i>IP Rates for Opal A</i>				
Month	Fluid, bfpd	Oil, bopd	Water, bwpd	Gas, mcf/d
0	455	78.169	376.831	78.169
<i>IP Rates for Opal CT</i>				
Month	Fluid, bfpd	Oil, bopd	Water, bwpd	Gas, mcf/d
0	152	26	126	5

	Well Name	Zone
1	K-8A	CT
2	GGG-9	CT
3	G-4	CT
4	EE-5A	CT
5	D-4A	CT
6	AA-6A	CT
7	AA-8A	A
8	BB-5	A
9	A-4	A
10	A-3	A
11	A-2	A
12	B-3	A
13	BB-13	A
14	BBB-14	A
15	CC-12	A
16	CC-11A	A
17	DD-12	A
18	C-4	A

	Well Name	Zone
19	C-2	A
20	E-3	A
21	F-3	A
22	H-5	A
23	G-3A	A
24	H-4A	A
25	HH-4	A
26	I-13A	A
27	I-5A	A
28	KKK-8	A + CT
29	KK-5A	A
30	KK-4	A
31	K-4	A
32	L-4	A



Dow Chanslor
Lease

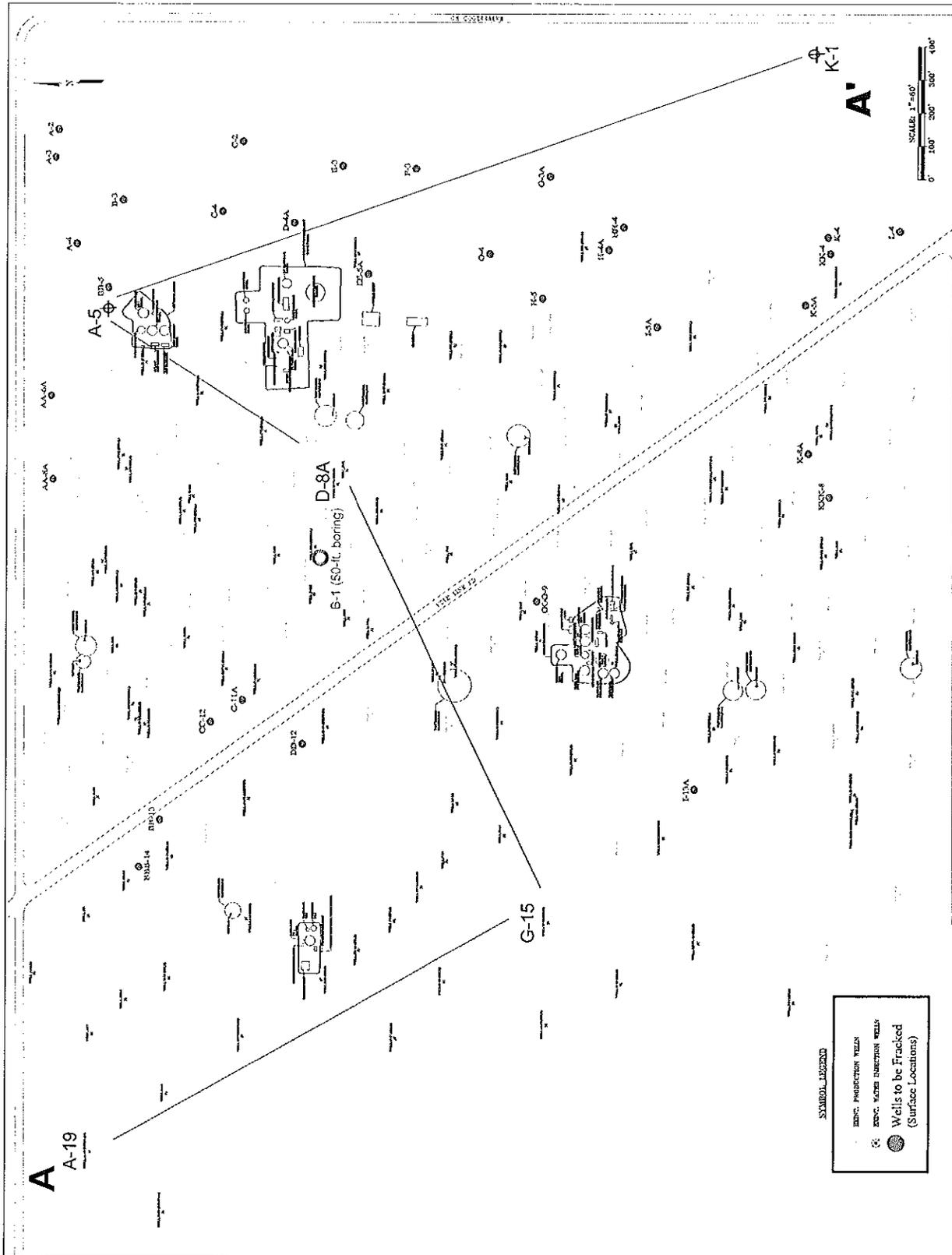
FIGURE 2
BreitBurn Dow Chanslor
Lease Location
Portions of North and South Belridge Fields
Kern County, California

Figure 4

Well Locations to be Fracked
(and other BritBurn
Facilities and Wells)

Dow Chanslor Lease,
North and South Belridge
Oil Fields
Kem Co., CA

Cross Section A-A' is shown on Figure 5.



A'

A

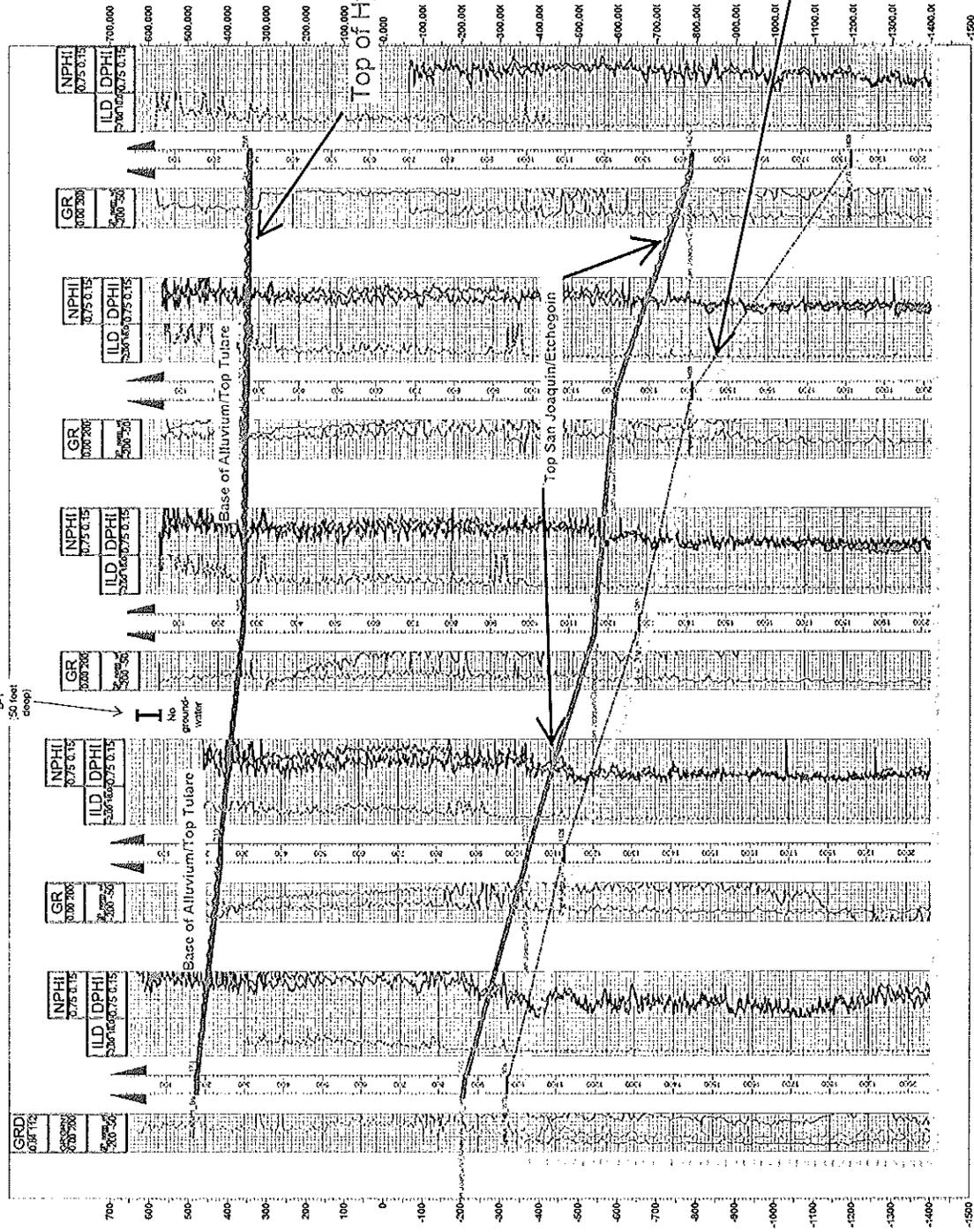


Figure 5
Cross Section A-A'
BreitBurn – Dow Chancellor Lease
North and South Belridge Oil Fields
Kern County, CA

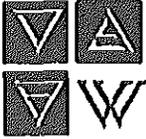
Red Shade denotes dry sand (air sands).
 Figure 4 shows cross section location.

Top of Hydrocarbon Zone

Area of Proposed Well Stimulation

Top Opal A Diatomite

ATTACHMENT A



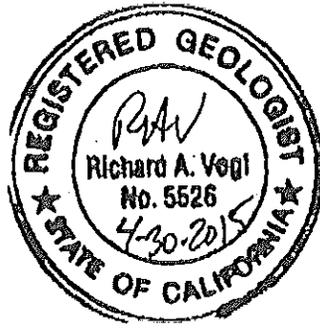
PROJECT INFORMATION	DRILLING INFORMATION
PROJECT: BreitBurn - Belridge Fracking LOCATION: Belridge Oil Field - Kern County JOB NO.: 14-119 PROJECT MANAGER: Nancy Berekny, P.G. LOGGED BY: Richard A. Vogl, P.G., C.Hg. DATES DRILLED: March 24, 2014	DRILLING CO.: Richard Heely Construction DRILLER: RIG TYPE: Solid Stem Auger Rig METHOD OF DRILLING: Solid Stem Auger SAMPLING METHODS: Continuous Grab Sampling TOTAL DEPTH: 50 Feet

LITHOLOGY

Depth feet bgs	Graphic Log	Water	USCS	Est. Grain Size % (gravel, sand, silt, clay)	Soil Description (and other remarks)	Collected	PID ppm
0			ML		SILT - Brown (10YR, 5/3), slightly moist, low plasticity		
-5							
-10			ML		SILT - Brown (10YR, 5/3), slightly moist, low plasticity Trace very fine sand		
-15			ML		SILT - Brown (10YR, 5/3), slightly moist, low plasticity		
-20			ML		SILT - Brown (10YR, 5/3), slightly moist, non-plastic		
-22			SP		SAND - Pale brown (10YR, 6/3), very fine sand, poorly graded, slightly moist, trace silt		
-24			SM		SILTY SAND - Pale brown (10YR, 6/3), very fine sand, slightly moist, 30% silt		
-26			SP		GRAVELLY SAND - Brown (10YR, 5/3), very fine to coarse sand, well graded, slightly moist, semi-rounded gravel up to 4" in diameter, 15% silt, 20% gravel		

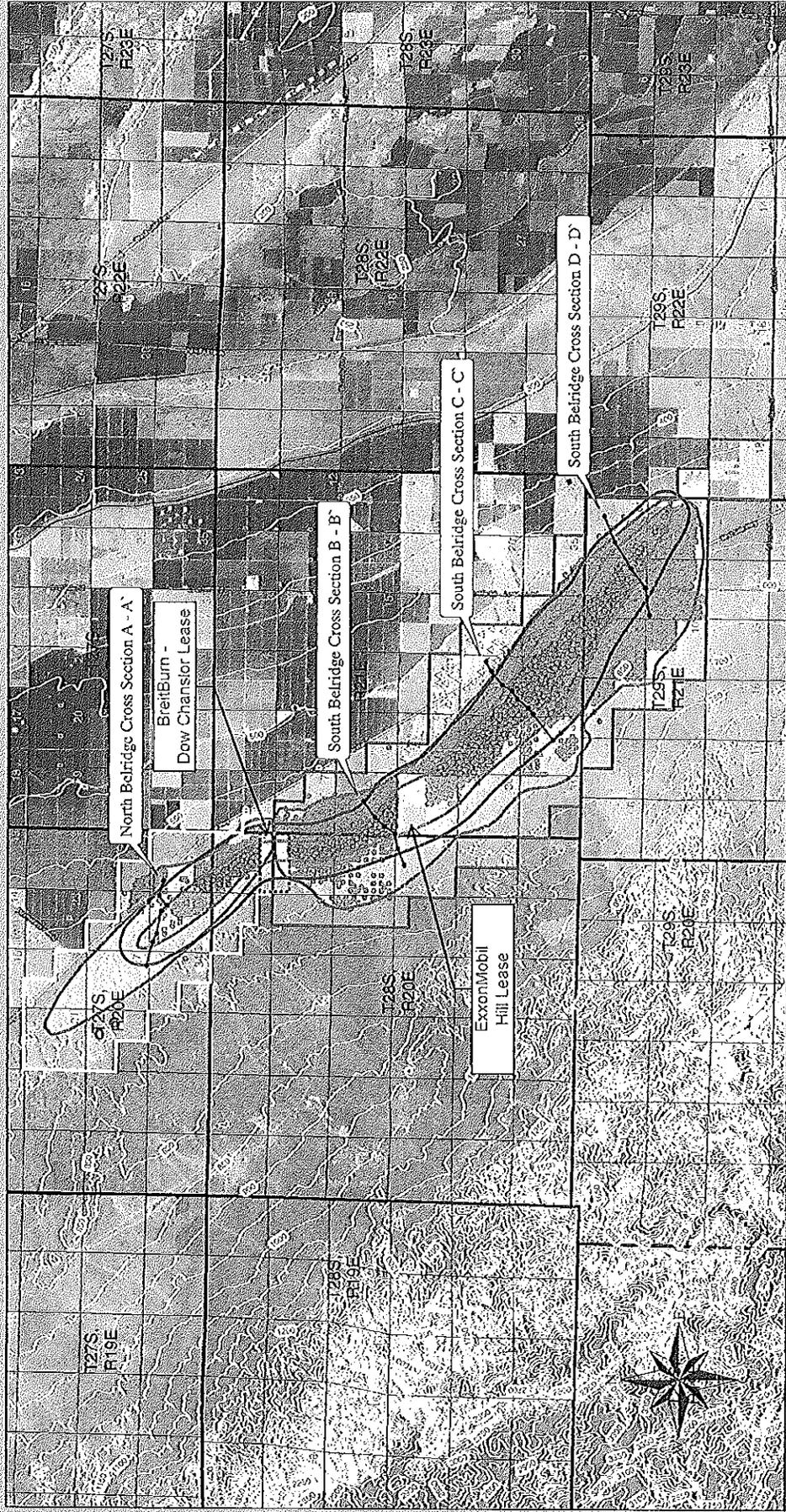
Depth (feet)	Graphic Log	Water	USCS	Est. Grain Size % (gravel, sand, silt, clay)	Soil Description (and other remarks)
-30			SP		GRAVELLY SAND - Pale brown (10YR, 6/3), very fine to coarse sand, well graded, slightly moist, semi rounded gravel up to 1" diameter, occasional rounded cobbles up to 6" diameter, 10% silt, 10% gravel
-35			SP ML		GRAVELLY SAND - Pale brown (10YR, 6/3) very fine to medium sand, moderately graded, slightly moist, 20% silt and 20% gravel GRAVELLY SILT - Very pale brown (10YR, 7/3), slightly moist, non-plastic, gravel up to 1" diameter, 20% gravel, trace very fine sand
-40			ML		GRAVELLY SILT - Very pale brown (10YR, 7/4), dry to slightly moist, gravel up to 1" diameter, 10-15% gravel, no sand
-45			SP		GRAVELLY SAND - Very pale brown (10YR, 7/3), very fine sand, trace medium sand, poorly graded, dry to slightly moist, trace silt, 1/2" diameter gravel, 5-10% gravel
-50			ML		10-15% silt, dry GRAVELLY SILT - Brown (10YR, 7/3), very fine sand, poorly graded, non-plastic, dry, 30-50% sand, gravel up to 1" diameter, 20% gravel
-55					
-60					
-65					

Total Depth: 50 feet.



ATTACHMENT B

Attachment B (5 pages)
 Source: Aera Submittal, Feb. 5, 2014



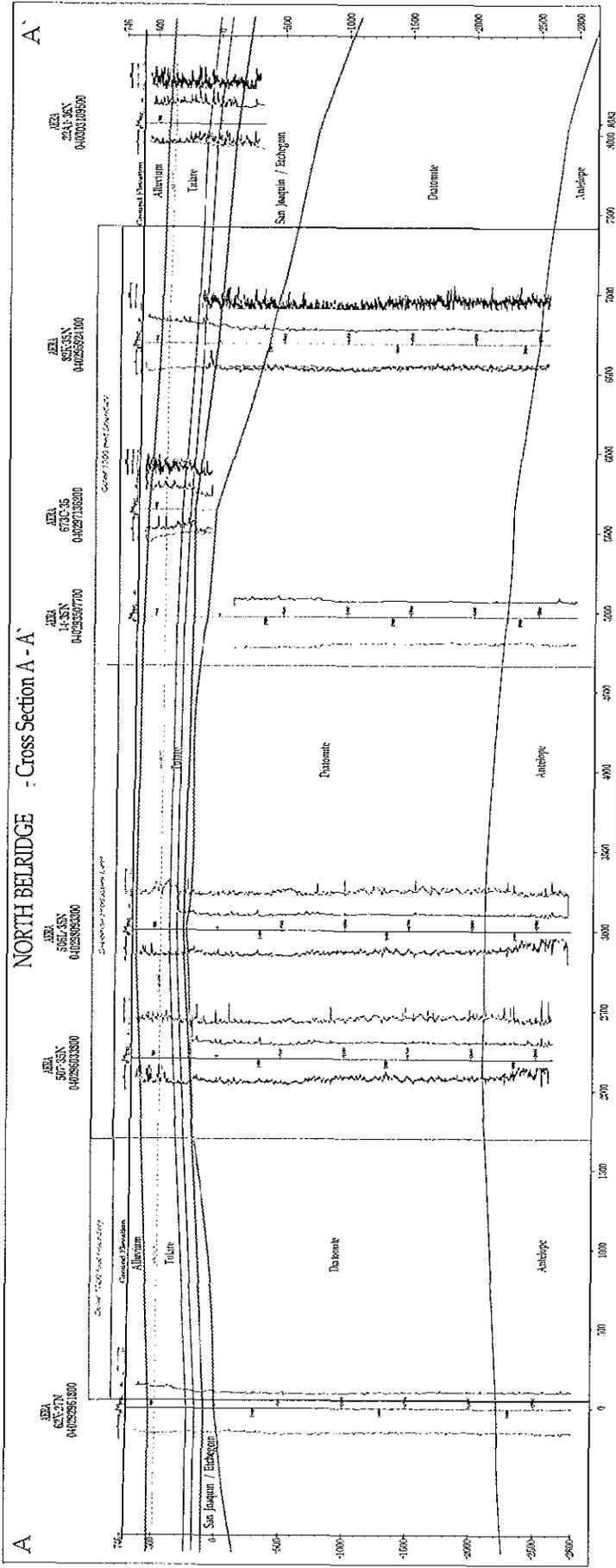
Legend

- Cross Sections
- South Belridge Field Boundary
- North Belridge Field Boundary
- Datum to Productive Limit
- Datum to Outer 1500 ft Boundary
- 1973 & 1974 DOGGR Productive Areas
- Class II Disposal Wells
- Datum Wells
- Turbine Wells
- Sections
- Elevation Contours (50 ft)

North & South Belridge Oil Fields

Figure 3





AREA	04023951200
STATION	62-27N
DATE	04/02/2000
PROJECT	NORTH BELLEDGE - Cross Section A - A'
SCALE	1" = 10'
DRUM	1000
DRUM	1500
DRUM	2000
DRUM	2500
DRUM	3000
DRUM	3500
DRUM	4000
DRUM	4500
DRUM	5000
DRUM	5500
DRUM	6000
DRUM	6500
DRUM	7000
DRUM	7500
DRUM	8000
DRUM	8500

B

SOUTH BELBRIDGE - Cross Section B - B'

B'

AREA
7-24
040297515500

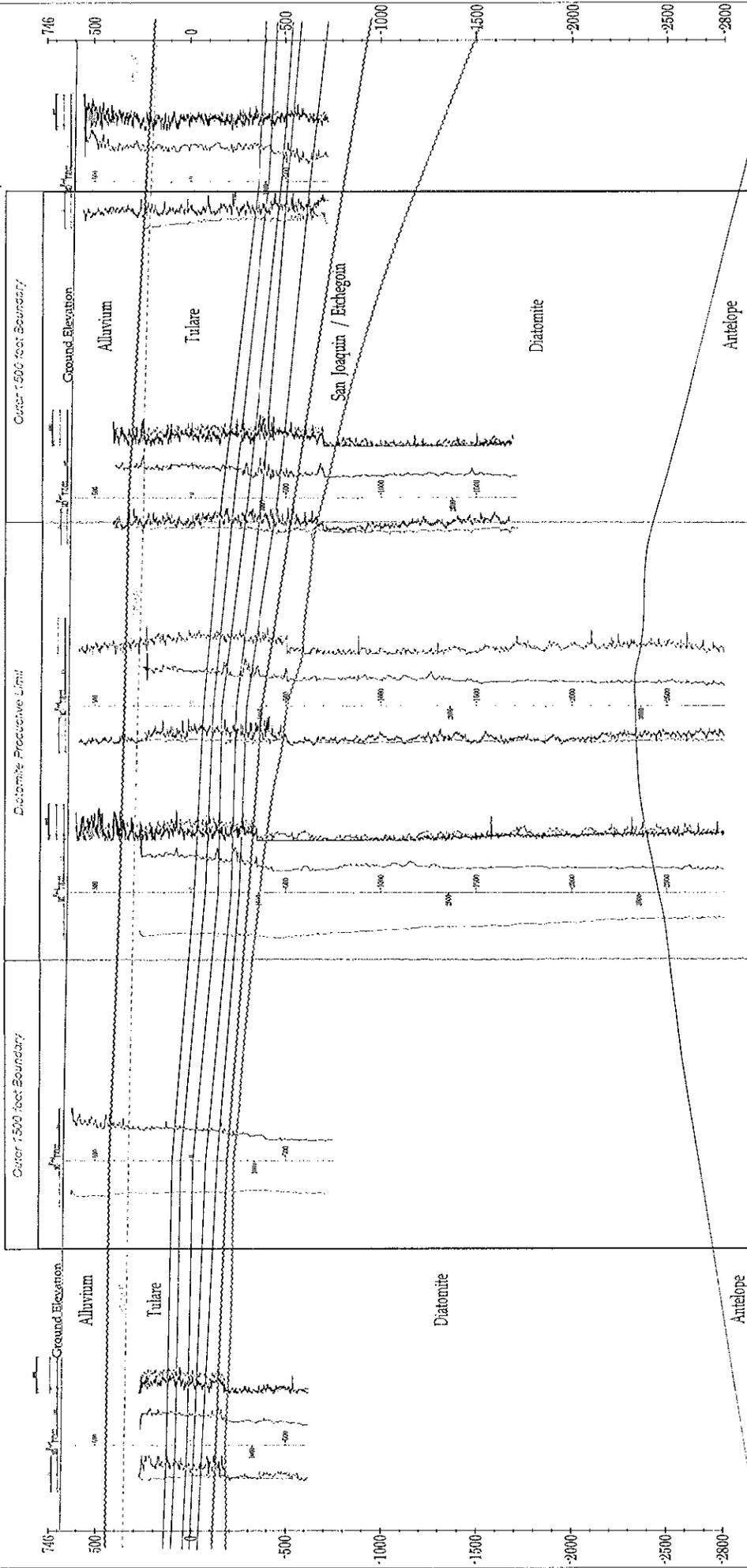
AREA
90-24
040295866700

AREA
519B-18
040296742200

AREA
527L-18
040297105200

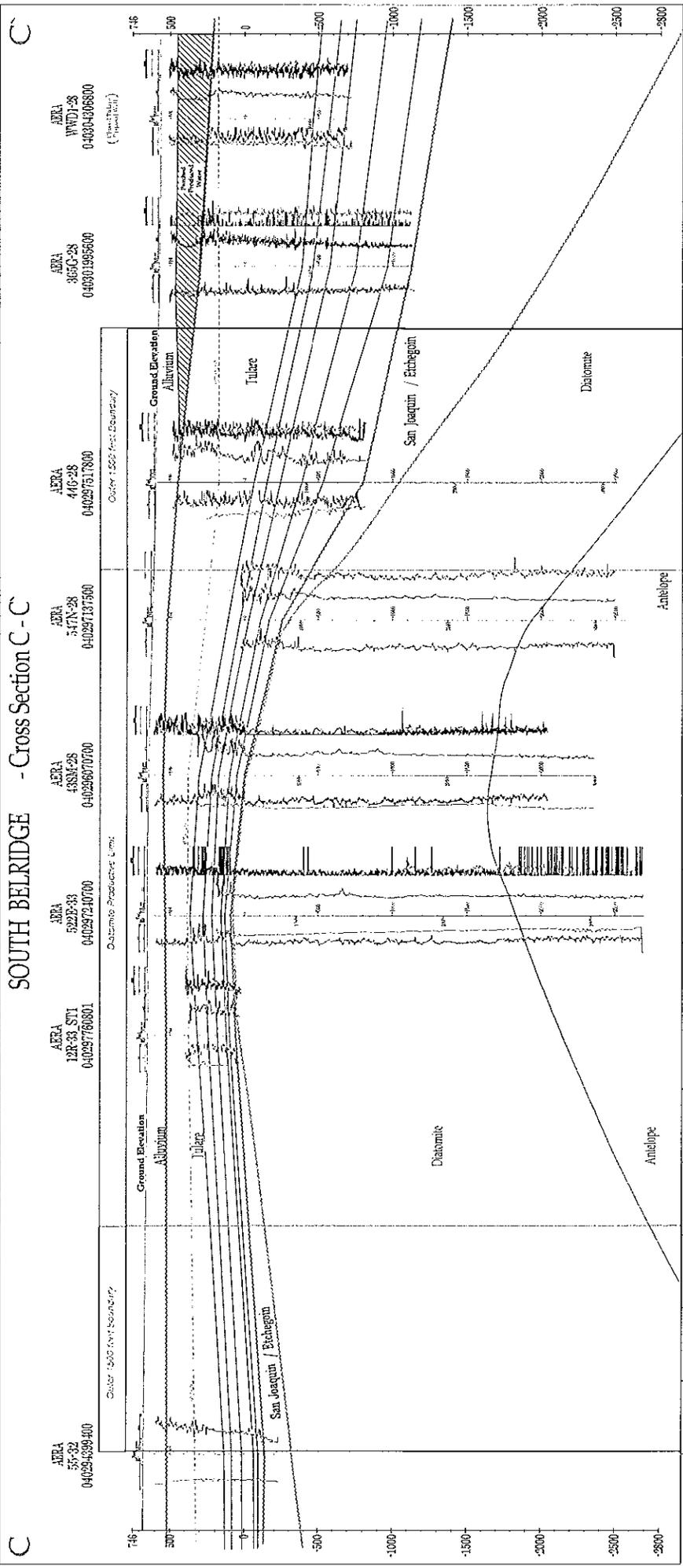
AREA
596C-18
040303221900

AREA
654AR-18
040296763900



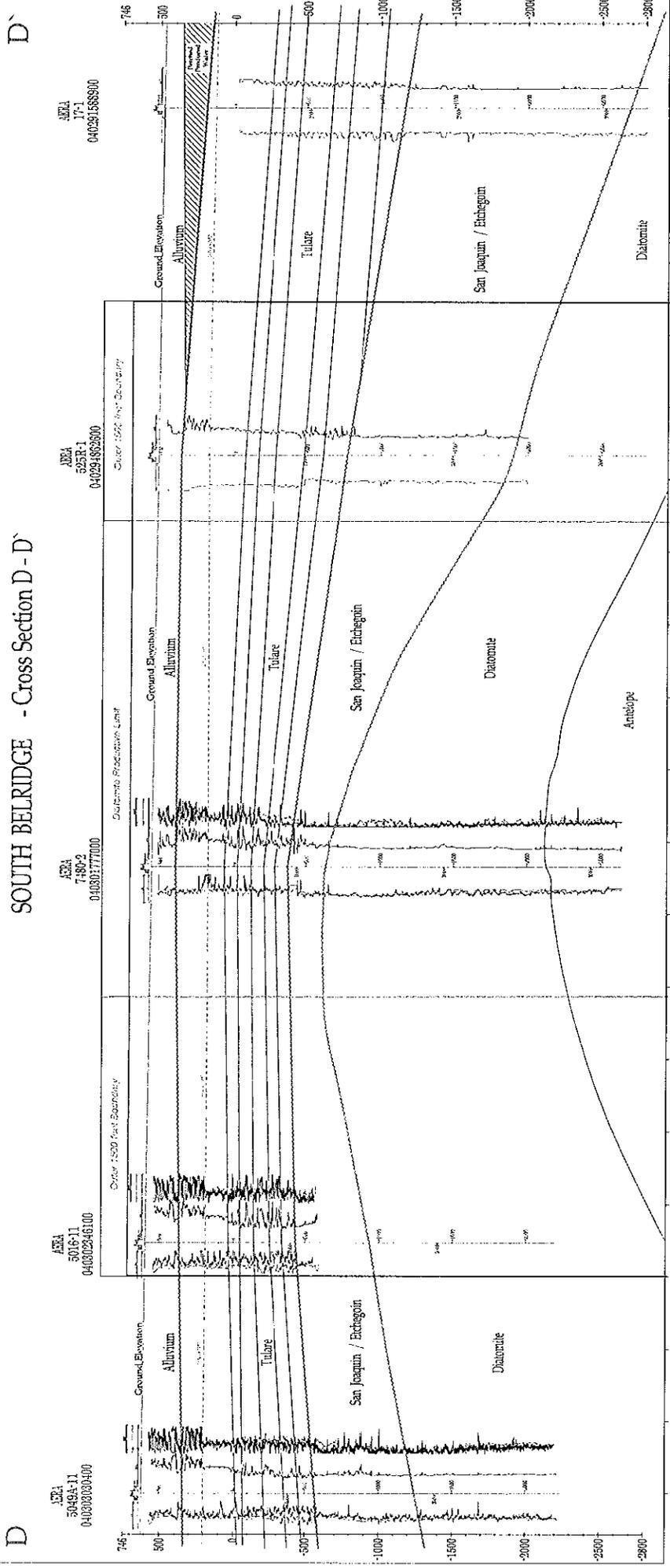
AREA ENERGY LLC	
SOUTH BELBRIDGE - Cross Section B - B'	
DATE	12/14/18
DRAWN BY	TE #1
CHECKED BY	TE #1
SOUTH BELBRIDGE LAKESIDE TGS, LLC	
SOUTH BELBRIDGE DISCRETIONARY	
CITY OF SOUTH BELBRIDGE, MISSOURI	

SOUTH BELTRIDGE - Cross Section C - C



AERA ENERGY LLC	
A Subsidiary of	
SOUTH BELTRIDGE Energy Services, LLC	
Company No.	040297137500
Well No.	517N-28
Well Name	517N-28
Well Type	Production
Well Status	Active
Well Depth	3800
Well Location	San Joaquin / Bledgoin
Well Operator	AERA ENERGY LLC
Well Owner	South Belridge Energy Services, LLC
Well Lease No.	040297137500
Well Lease Date	08/27/2012

SOUTH BELBRIDGE - Cross Section D - D'



AREA
5016-11
04030246.00

AREA
525R-1
040291852600

AREA
7480-2
04030777000

AREA
5049A-11
04030303400

AGRIENERGY LLC
SOUTH BELBRIDGE - Geophysics
DATE: 08/11/11
SCALE: VE = 1
PROJECT: SOUTH BELBRIDGE - Geophysics
DATE: 08/11/11