PM

**State of West Virginia**
**Department of Environmental Protection - Office of Oil and Gas**
**Well Operator's Report of Well Work**

API **47-051-01545** County: **MARSHALL** District: **CAMERON**

Quad: **MAJORSVILLE** Pad Name: **MARTINEZ** Field/Pool Name:

Farm name: **MARTINEZ** Well Number: **1H**

Operator (as registerd with the OOG) **TRANS ENERGY, INC.**

Address: **P. O. BOX 393** City: **ST. MARYS** State: **WV** Zip: **26170**

As Drilled Location NAD 83/UTM Attach an as-drilled plat, profile view, and dviation survey.

| | | | | |
|---|---|---|---|---|
| Top hole | Northing | 4414696 | Easting | 540659 |
| Landing Point of curve | Northing | 4414579 | Easting | 540505 |
| Bottom hole | Northing | 4412602 | Easting | 540901 |

Elevation (ft): **1,340'** GL Type of Well: **NEW** Type of Report: **FINAL**

Permit Type: **HORIZONTAL 6A** Depth Type: **SHALLOW**

Type of Operation: **DRILL**

Well Type: **GAS**

Type of Completion: **SINGLE** Fluids Produced: **GAS NGL and OIL**

Drilled With: **ROTARY**

Drilling Media: **MUD** Intermediate hole: **MUD**

Production hole: **MUD**

Mud Type(s) and Additive(s) **MUD TYPE - SYTHETIC BASE DRILLING MUD**

| ADDITIVES: | Calcium Carbonate | Hydrated Lime | Synvert Synthetic 1-L | Citric Acid | Drispac Low Vis |
|---|---|---|---|---|---|
| | Calcium Chloride | Cedar Fiber | Bentonite | Sodium Bicarbonate | L-20C |
| | Synvert LEM | Rubber Crumb | Soda Ash, dense | Glycerine | Bioclear |
| | Synvert Synthetic WA-L | Cottonseed Hulls | Lignite | Desco | |
| | Barite | Synvert Synthetic 11-L | Aluminum Sterate | Caustic Soda Beads | |

Date permit issued: **6/5/2012** Date drilling commenced: **6/24/2012** Date drilling ceased: **7/27/2012**

Date completion activities began: **4/15/2013** Date completion activities ceased: **4/29/2013**

Verbal plugging: **N/A** Date permission granted: **N/A** Granted by: **N/A**

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug.

Fresh water depth (s) ft: **60', 200'** Open mine(s) (Y/N) depths: **N**

Salt water depth(s) ft: **N** Void(s) encountered (Y/N) depths: **N**

Coal Depth(s) ft: **790'** Cavern(s) encountered (Y/N) depths: **N**

Is coal being mined in area (Y/N) **N**

Received
FEB 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

Reviewed by:

AX 05/04/16

| API: | 47-051-01545 | Farm Name: | MARTINEZ | Well Number: | 1H |
|---|---|---|---|---|---|

| CASING STINGS | Hole Size | Casing Size | Depth | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/N) Provide details below. |
|---|---|---|---|---|---|---|---|
| Conductor | 30" | 24" | 80' | NEW | J-55 / 64 | N/A | Y |
| Surface | 26" | 20" | 300' | NEW | J-55 / 94 | 160' | Y |
| Coal | 17 1/2" | 13 3/8" | 856' | NEW | J-55 / 54.5 | 200' | Y |
| Intermediate 1 | 12 1/4" | 9 5/8" | 2,968' | NEW | J-55 / 40 | N/A | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8 3/4" | 5 1/2" | 11,637' | NEW | P-110 / 20 | N/A | Y |
| Tubing | | | | | | | |
| Packer type and Depth Set | | | | | | | |

Comment Details:

| CEMENT DATA | Class / type of Cement | Number of Sacks | Slurry wt (ppg) | Yield ( ft $^3$/ sks) | Volume ( ft $^3$ ) | Cement Top (MD) | WOC (hrs) |
|---|---|---|---|---|---|---|---|
| Conductor | | | | | | | |
| Surface | TYPE 1 | 125 | 14.8 | 1.25 | 168 | CTS | 8 |
| Coal | TYPE 1 | 995 | 15.6 | 1.25 | 858 | CTS | 8 |
| Intermediate 1 | TYPE 1 | 1,115 | 15.6 | 1.26 | 1074 | CTS | 8 |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | POZ H CLASS H | 2,375 | 13.5 | 1.18 | 3030 | 2500 | 10 |
| Tubing | | | | | | | |

Drillers TD (ft): 11,654' Loggers TD (ft): 69

Deepest formation penetrated: MARCELLUS Plug back to (ft): N/A

Plug back procedure: N/A

Kick off depth (ft) 3,017'

Check all wireline logs run:
NONE ☐ neutron ☐ caliper ☐ resistivity ☐ density ☐ gamma ray ☐ deviated/directional ☐ temperature ☐ induction ☐ sonic

Well cored? NO Were cuttings collected? NO

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

FRESH WATER STRING - 1 CENTRALIZER EVERY 160'

INTERMEDIATE STRING - 1 CENTRALIZER EVERY 100' FROM 3,300' TO 900'

PRODUCTION STRING - 1 CENTRALIZER EVERY 80' FROM TD TO ABOVE ROP 7000'

WAS WELL COMPLETED AS SHOT HOLE? NO DETAILS:

WAS WELL COMPLETED OPEN HOLE? NO DETAILS:

WERE TRACERS USED? NO TYPE OF TRACER(S) USED: N/A

Received
FEB 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

| API: | 47-051-01545 | Farm Name: | MARTINEZ | Well Number: | 1H |
|---|---|---|---|---|---|

*** SEE ATTACHED WELLBORE DIAGRAM FOR SUMMARY OF CASING,STAGE AND PERF INTERVAL - 1 PAGE ***

## PERFORATION RECORD

| Stage No. | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formations |
|---|---|---|---|---|
| | | | | |
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*** SEE ATTACHED CONBINATION PERFORATION - STIMULATION REPORTS - 18 PAGES ***

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Please insert additional pages as applicable.

## STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

| Stage No. | Stimulations Date | Ave Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen /other |
|---|---|---|---|---|---|---|---|---|
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*** SEE ATTACHED CONBINATION PERFORATION - STIMULATION REPORTS - 18 PAGES ***

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|---|---|---|---|---|---|---|---|---|
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| API: | 47-051-01545 | Farm Name: | MARTINEZ | Well Number: | 1H |
|---|---|---|---|---|---|

PRODUCING FORMATION(S) DEPTHS

**MARCELLUS SHALE** 6,989' TVD 11,607' MD

GAS TEST: N/A OIL TEST: N/A

SHUT-IN PRESSURE: Surface: _____psi Bottom hole: _____psi DURATION OF TEST: _____hrs

| OPEN FLOW | GAS: _____mcfpd | OIL: _____bpd | NGL: _____bpd | WATER: _____bpd | GAS MEASURED BY: ESTIMATED |
|---|---|---|---|---|---|

| LITHOLOGY / FORMATION | TOP DEPTH IN FT NAME TVD | BOTTOM DEPTH IN FT TVD | TOP DEPTH IN FT MD | BOTTOM DEPTH IN FT MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S, ETC) |
|---|---|---|---|---|---|
| | | | | | |
| MIDDLESEX | 6667' | 6,759' | 6,768' | 6,900' | |
| BURKETT | 6759' | 6,785' | 6,900' | 6,948' | |
| TULLY | 6785' | 6,817' | 6,948' | 7,004' | |
| MARCELLUS | 6923' | ------ | 7,335' | ------ | |
| | | | | | |
| | | | | | |
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Please insert additional pages as applicable.



**Submittal of Hydralic Fracturing Checmial Discloure Information:**
***** SEE TWO (2) PAGE ATTACHMENT LISTING ADDITIVES TO BE USED IN FRACTURING AND STIMULATIONS *****

Drilling Contractor: **NOMAC DRILLING LLC**
Address: **3400 S. RADIO ROAD** City: **EL RENO** State: **OK** Zip: **73036**

Logging Contractor: **N/A**
Address: City: State Zip:

Cementing Company: **BAKER HUGHES**
Address: **17015 ALDINE WESTFIELD ROAD** City: **HOUSTON** State **TX** Zip: **77073-5101**

Stimulating Company: **GO FRAC**
Address: **7000 CALMONT AVENUE, SUITE 310** City: **FORT WORTH** State **TX** Zip: **76116**

**Completed by:** Leslie A. Gearhart, Vice President of Operations Telephone: 304/684-7053

**Signature:** Leslie A Gearhart DATE: 2-11-14

TRANS ENERGY, INC.
API 47-051-01545 MARTINEZ 1H
MARSHALL COUNTY, WEST VIRGINIA

## WELLBORE DIAGRAM

WELL NAME: Martinez No. 1H DATE: 2/4/2013 PRESENT: ___ PROPOSED: X
AREA: WV API NO: 47-051-01545 FIELD: MARCELLUS
COUNTY: MARSHALL LOCATION:
TD: 11,654' GAS/OIL PURCH: CAMEN PREP BY: NICK STEINSBERGER
PBTD 11,607' AZMUITH: 172 DEG SPUD DATE: 6/24/2013 COMPLETION DATE: 3/2013
TVD: 6989' INITIAL PROD. D RECOMPLETION DATE: N/A
PBTVD: 6989' KB: ___ GL: ___ TRANS ENERGY: ___ TRANS ENERGY NRI: ___

OPENHOLE LOGS: NONE
CASED HOLE LOGS:

SURFACE CASING

| DEPTH | SIZE | W GRADE | BIT SIZE | SACKS | TOC | FEET | JOINTS |
|---|---|---|---|---|---|---|---|
| 856' | 13-3/8" | J-55 | 14-3/4" | 995 | SURF | | |

INTERMEDIATE CASING

| DEPTH | SIZE | W GRADE | BIT SIZE | SACKS | TOC | FEET | JOINTS |
|---|---|---|---|---|---|---|---|
| 2968' | 9-5/8" | 36# J-55 | 12-1/4" | 1115 | SURF | | |

INTERMEDIATE CASING

| DEPTH | SIZE | W GRADE | BIT SIZE | SACKS | TOC | FEET | JOINTS |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| | PERF INTERVAL 1 | PERF INTERVAL 2 | PERF INTERVAL 3 | PERF INTERVAL 4 | PERF INTERVAL 5 |
|---|---|---|---|---|---|
| STAGE 1 | 11,593 - 11,594' 9 HOLES | 11,550 - 11,551' 9 HOLES | 11,515 - 11,516' 8 HOLES | 11,485 - 11,486' 8 HOLES | 11,433 - 11,434' 7 HOLES |
| STAGE 2 | 11,407 - 11,408' 9 HOLES | 11,308 - 11,309' 9 HOLES | 11,335 - 11,336' 8 HOLES | 11,317 - 11,318' 8 HOLES | 11,286 - 11,287' 7 HOLES |
| STAGE 3 | 11,237 - 11,238' 9 HOLES | 11,210 - 11,211' 9 HOLES | 11,168 - 11,169' 8 HOLES | 11,131 - 11,132' 8 HOLES | 11,081 - 11,082' 7 HOLES |
| STAGE 4 | 11,035 - 11,036' 9 HOLES | 11,004 - 11,005' 9 HOLES | 10,976 - 10,978' 8 HOLES | 10,938 - 10,939' 8 HOLES | 10,915 - 10,916' 7 HOLES |
| STAGE 5 | 10,859 - 10,860 9 HOLES | 10,816 - 10,817' 9 HOLES | 10,788 - 10,789' 8 HOLES | 10,685 - 10,686' 8 HOLES | 10,615 - 10,616' 7 HOLES |
| STAGE 6 | 10,570 - 10,571' 9 HOLES | 10,535 - 10,536' 9 HOLES | 10,495 - 10,496' 8 HOLES | 10,464 - 10,465' 8 HOLES | 10,403 - 10,404' 7 HOLES |
| STAGE 7 | 10,345 - 10,346' 9 HOLES | 10,316 - 10,317' 9 HOLES | 10,297 - 10,298' 8 HOLES | 10,255 - 10,256' 8 HOLES | 10,220 - 10,221' 7 HOLES |
| STAGE 8 | 10,155 - 10,156' 9 HOLES | 10,105 - 10,106' 9 HOLES | 10,050 - 10,051' 8 HOLES | 10,012 - 10,013' 8 HOLES | 9975 - 9978' 7 HOLES |
| STAGE 9 | 9915 - 9916' 9 HOLES | 9857 - 9858' 9 HOLES | 9827 - 9828' 8 HOLES | 9773 - 9774' 8 HOLES | 9746 - 9747' 7 HOLES |
| STAGE 10 | 9676 - 9677' 9 HOLES | 9655 - 9656' 9 HOLES | 9576 - 9577' 8 HOLES | 9542 - 9543' 8 HOLES | 9505 - 9506' 7 HOLES |
| STAGE 11 | 9460 - 9461' 9 HOLES | 9418 - 9419' 9 HOLES | 9385 - 9386' 8 HOLES | 9332 - 9333' 8 HOLES | 9290 - 9291' 7 HOLES |
| STAGE 12 | 9240 - 9241' 9 HOLES | 9202 - 9203' 9 HOLES | 9165 - 9166' 8 HOLES | 9113 - 9114' 8 HOLES | 9077 - 9078' 7 HOLES |
| STAGE 13 | 9017 - 9018' 9 HOLES | 8960 - 8961' 9 HOLES | 8932 - 8933' 8 HOLES | 8891 - 8892' 8 HOLES | 8847 - 8848' 7 HOLES |
| STAGE 14 | 8768 - 8769' 9 HOLES | 8733 - 8734' 9 HOLES | 8664 - 8665' 8 HOLES | 8620 - 8621' 8 HOLES | 8591 - 8692' 7 HOLES |
| STAGE 15 | 8532 - 8533' 9 HOLES | 8505 - 8506' 9 HOLES | 8466 - 8467' 8 HOLES | 8421 - 8422' 8 HOLES | 8372 - 8373' 7 HOLES |
| STAGE 16 | 8280 - 8281' 9 HOLES | 8251 - 8252' 9 HOLES | 8211 - 8212' 8 HOLES | 8170 - 8171' 8 HOLES | 8120 - 8121' 7 HOLES |
| STAGE 17 | 8025 - 8026' 9 HOLES | 7981 - 7982' 9 HOLES | 7943 - 7944' 8 HOLES | 7895 - 7896' 8 HOLES | 7810 - 7811' 7 HOLES |
| STAGE 18 | 7726 - 7727' 8 HOLES | 7670 - 7671' 8 HOLES | 7635 - 7636' 7 HOLES | 7569 - 7570' 6 HOLES | 7525 - 7526' 5 HOLES |

MARKER JOINT @ 4983'

Tully 6880'
Marcellus 6965'
Onondaga 7010'

KICK-OFF POINT AT 3017' HORIZONTAL @ 7555' AZMUITH 172 deg

PRODUCTION CASING

| DEPTH | SIZE | WT GRADE | CLASS | BIT SIZE | SACKS | TOC | JOINTS |
|---|---|---|---|---|---|---|---|
| 11,637' | 5-1/2" | 20# P-110 | NEW | 8-3/4" | 2375 | SURF | 281 |
| | | | | | | | |

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 2/7/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 11,593 | to | 11,594 | | 9 |
| 2 | 11,550 | to | 11,551 | | 9 |
| 3 | 11,515 | to | 11,516 | | 8 |
| 4 | 11,485 | to | 11,486 | | 8 |
| 5 | 11,433 | to | 11,434 | | 7 |

POOH. Shoot guns-Spot 500 gals 7 1/2% HCL acid. SWIFN.

DC:

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Frac Report: Stage # 1

Well Name: MARTINEZ #1H Date of Job: 4/7/2013

MIRU GoFrac (name of Co)

Pumped: 1,325 bbls of Fluid & 26,000 # of sand
Pumped 500 bbls 10 lb gel.

26,000 #100 mesh
0 #40/70
0 #20/40

Avg. Rate 34 bpm Max Rate- 50 bpm

Avg. Pres: 6956 psi Max Pressui 8978 psi

ISIP- 5535 psi FG- 1.23 psi/ft

Final ISIP 6487 psi FG- 1.36 psi/ft

DC:
SWI- waiting on gel and flowback equipment

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/8/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ no plug ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 11,407 | to | 11,408 | | 9 |
| 2 | 11,380 | to | 11,381 | | 9 |
| 3 | 11,335 | to | 11,336 | | 8 |
| 4 | 11,317 | to | 11,318 | | 8 |
| 5 | 11,286 | to | 11,287 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 2

Well Name: MARTINEZ #1H Date of Job: 4/8/2013

MIRU GoFrac (name of Co)

Pumped: 8,834 bbls of Fluid & 319,810 # of sand
260 bbls for guns

63,410 #100 mesh
155,950 #40/70
100,450 #20/40

Avg. Rate 59 bpm Max Rate- 72 bpm

Avg. Pres 7775 psi Max Pressu 7775 psi

ISIP- 5446 psi FG- 1.21 psi/ft

Final ISIP 4650 psi FG- 1.10 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/8/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 11,260 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 11,237 | to | 11,238 | | 9 |
| 2 | 11,210 | to | 11,211 | | 9 |
| 3 | 11,168 | to | 11,169 | | 8 |
| 4 | 11,131 | to | 11,132 | | 8 |
| 5 | 11,081 | to | 11,082 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 3

Well Name: MARTINEZ #1H Date of Job: 4/8/2013

MIRU GoFrac (name of Co)

Pumped: 8,363 bbls of Fluid & 389,640 # of sand
216 to pump guns

148,100 #100 mesh
174,700 #40/70
66,840 #20/40

Avg. Rate 63.1 bpm Max Rate- 75.2 bpm

Avg. Pres 7877 psi Max Pressu 8562 psi

ISIP- 4810 psi FG- 1.12 psi/ft

Final ISIP- psi FG- psi/ft

DC:
SD waiting on CT.

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/10/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ no plug set ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 11,035 | to | 11,036 | | 10 |
| 2 | 11,004 | to | 11,005 | | 9 |
| 3 | 10,976 | to | 10,978 | | 9 |
| 4 | 10,938 | to | 10,939 | | 8 |
| 5 | 10,915 | to | 10,916 | | 8 |

POOH.

All guns fired.

DC: $

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Frac Report: Stage # 4

Well Name: MARTINEZ #1H Date of Job: 4/10/2013

MIRU GoFrac (name of Co)

Pumped: 8,110 bbls of Fluid & 319,130 # of sand

133,850 #100 mesh
162,720 #40/70
22,560 #20/40

Avg. Rate 60 bpm Max Rate- 60 bpm

Avg. Pres 7765 psi Max Pressu 9068 psi

ISIP- 5357 psi FG- 1.20 psi/ft

Final ISIP 4835 psi FG- 1.13 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/11/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 10,888 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 10,859 | to | 10,860 | | 9 |
| 2 | 10,816 | to | 10,817 | | 9 |
| 3 | 10,788 | to | 10,789 | | 8 |
| 4 | 10,665 | to | 10,666 | | 8 |
| 5 | 10,615 | to | 10,616 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 5

Well Name: MARTINEZ #1H Date of Job: 4/11/2013

MIRU GoFrac (name of Co)

Pumped: 8,281 bbls of Fluid & 360,290 # of sand

156,190 #100 mesh
161,730 #40/70
42,370 #20/40

Avg. Rate 64.2 bpm Max Rate- 70.4 bpm

Avg. Pres. 7821 psi Max Pressu 8598 psi

ISIP- 5357 psi FG- 1.20 psi/ft

Final ISIP 4438 psi FG- 1.07 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/12/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 10,590 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 10,570 | to | 10,571 | | 9 |
| 2 | 10,535 | to | 10,536 | | 9 |
| 3 | 10,495 | to | 10,496 | | 8 |
| 4 | 10,464 | to | 10,465 | | 8 |
| 5 | 10,403 | to | 10,404 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 6

Well Name: MARTINEZ #1H Date of Job: 4/12/2013

MIRU GoFrac (name of Co)

Pumped: 8,430 bbls of Fluid & # of sand
205 bbls to pump guns

158,380 #100 mesh
155,950 #40/70
41,170 #20/40

Avg. Rate 67.6 bpm Max Rate- 75.8 bpm

Avg. Pres 7884 psi Max Pressu 9169 psi

ISIP- 5232 psi FG- 1.18 psi/ft

Final ISIP 4858 psi FG- 1.13 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/12/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 10,370 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 10,345 | to | 10,346 | | 9 |
| 2 | 10,316 | to | 10,317 | | 9 |
| 3 | 10,297 | to | 10,298 | | 8 |
| 4 | 10,255 | to | 10,256 | | 8 |
| 5 | 10,220 | to | 10,221 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 7

Well Name: MARTINEZ #1H Date of Job: 4/12/2013

MIRU GoFrac (name of Co)

Pumped: 8,225 bbls of Fluid & 366,240 # of sand
174 bbls to pump guns

158,710 #100 mesh
162,350 #40/70
45,180 #20/40

Avg. Rate 67.8 bpm Max Rate- 77.6 bpm

Avg. Pres: 7638 psi Max Pressu 8085 psi

ISIP- 5366 psi FG- 1.20 psi/ft

Final ISIP 4907 psi FG- 1.14 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/12/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 10,190 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 10,155 | to | 10,156 | | 9 |
| 2 | 10,105 | to | 10,106 | | 9 |
| 3 | 10,050 | to | 10,051 | | 8 |
| 4 | 10,012 | to | 10,013 | | 8 |
| 5 | 9,975 | to | 9,976 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 8

Well Name: MARTINEZ #1H Date of Job: 4/12.2013

MIRU GoFrac (name of Co)

Pumped: 8,223 bbls of Fluid & 363,000 # of sand
161 bbls to pump guns

156,920 #100 mesh
163,030 #40/70
43,050 #20/40

Avg. Rate 67.2 bpm Max Rate- 75.4 bpm

Avg. Pres: 7850 psi Max Pressui 8792 psi

ISIP- 5366 psi FG- 1.20 psi/ft

Final ISIP 4298 psi FG- 1.05 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/13/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 9,940 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 9,915 | to | 9,916 | | 9 |
| 2 | 9,857 | to | 9,858 | | 9 |
| 3 | 9,827 | to | 9,828 | | 8 |
| 4 | 9,773 | to | 9,774 | | 8 |
| 5 | 9,746 | to | 9,747 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 9

Well Name: MARTINEZ #1H Date of Job: 4/13/2013

MIRU GoFrac (name of Co)

Pumped: 8,264 bbls of Fluid & 365,320 # of sand
159 bbls to pump guns

158,020 #100 mesh
162,830 #40/70
44,470 #20/40

Avg. Rate 65.6 bpm Max Rate- 75.6 bpm

Avg. Pres: 7522 psi Max Pressur 8685 psi

ISIP- 5242 psi FG- 1.18 psi/ft

Final ISIP 4404 psi FG- 1.06 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/13/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 9,700 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 9,676 | to | 9,677 | | 9 |
| 2 | 9,655 | to | 9,656 | | 9 |
| 3 | 9,576 | to | 9,577 | | 8 |
| 4 | 9,542 | to | 9,543 | | 8 |
| 5 | 9,505 | to | 9,506 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 10

Well Name: MARTINEZ #1H Date of Job: 4/13/2013

MIRU GoFrac (name of Co)

Pumped: 8,439 bbls of Fluid & 198,170 # of sand

123,600 #100 mesh
74,570 #40/70
0 #20/40

Avg. Rate 53.5 bpm Max Rate- 56.5 bpm

Avg. Pres: 7838 psi Max Pressur 8814 psi

ISIP- 5367 psi FG- 1.20 psi/ft

Final ISIP 5772 psi FG- 1.20 psi/ft



DC:
High Pressure line broke, flushed and SD Was pumping 100 mesh when blender went down,flushed, SD. Got to 1.5 of 40/70 when pressures caused us to flush and SD. Zone was treating very high from the start. Getting ready to pump stage 11 when wireline crane truck would not start. Waiting on parts.

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/14/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 9,481 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 9,460 | to | 9,461 | | 9 |
| 2 | 9,418 | to | 9,419 | | 9 |
| 3 | 9,385 | to | 9,386 | | 8 |
| 4 | 9,332 | to | 9,333 | | 8 |
| 5 | 9,290 | to | 9,291 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 11

Well Name: MARTINEZ #1H Date of Job: 4/14/2013

MIRU GoFrac (name of Co)

Pumped: 8,270 bbls of Fluid & 357,670 # of sand
151 bbls to pump guns

152,520 #100 mesh
161,900 #40/70
43,250 #20/40

Avg. Rate 63.5 bpm Max Rate- 73.1 bpm

Avg. Pres: 7692 psi Max Pressui 8667 psi

ISIP- 5674 psi FG- 1.25 psi/ft

Final ISIP 4450 psi FG- 1.07 psi/ft

DC:

All equipment repaired.

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/14/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 9,264 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 9,240 | to | 9,241 | | 9 |
| 2 | 9,202 | to | 9,203 | | 9 |
| 3 | 9,165 | to | 9,166 | | 8 |
| 4 | 9,113 | to | 9,114 | | 8 |
| 5 | 9,077 | to | 9,078 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 12

Well Name: MARTINEZ #1H Date of Job: 4/14/2013

MIRU GoFrac (name of Co)

Pumped: 8,226 bbls of Fluid & 361,110 # of sand
116 bbls to pump guns

155,230 #100 mesh
162,750 #40/70
43,130 #20/40

Avg. Rate 65.7 bpm Max Rate- 75.7 bpm

Avg. Pres: 7481 psi Max Pressur 8292 psi

ISIP- 5431 psi FG- 1.21 psi/ft

Final ISIP 5266 psi FG- 1.19 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/14/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 9,046 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 9,017 | to | 9,018 | | 9 |
| 2 | 8,960 | to | 8,961 | | 9 |
| 3 | 8,932 | to | 8,933 | | 8 |
| 4 | 8,891 | to | 8,892 | | 8 |
| 5 | 8,847 | to | 8,848 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 13

Well Name: MARTINEZ #1H Date of Job: 4/13/2013

MIRU GoFrac (name of Co)

Pumped: 8,132 bbls of Fluid & 366,500 # of sand
101 bbls to pump guns

158,280 #100 mesh
161,900 #40/70
46,320 #20/40

Avg. Rate 69.2 bpm Max Rate- 79.7 bpm

Avg. Pres: 7531 psi Max Pressur 8614 psi

ISIP- 5293 psi FG- 1.19 psi/ft

Final ISIP 4877 psi FG- 1.13 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/15/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 8,806 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 8,768 | to | 8,769 | | 9 |
| 2 | 8,733 | to | 8,734 | | 9 |
| 3 | 8,664 | to | 8,665 | | 8 |
| 4 | 8,620 | to | 8,621 | | 8 |
| 5 | 8,591 | to | 8,592 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 14

Well Name: MARTINEZ #1H Date of Job: 4/15/2013

MIRU GoFrac (name of Co)

Pumped: 8,134 bbls of Fluid & 368,990 # of sand
88 bbls to pump guns

157,170 #100 mesh
161,590 #40/70
50,230 #20/40

Avg. Rate 65.5 bpm Max Rate- 77.9 bpm

Avg. Pres: 7692 psi Max Pressur 8498 psi

ISIP- 5094 psi FG- 1.16 psi/ft

Final ISIP 4395 psi FG- 1.06 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/15/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 8,560 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 8,532 | to | 8,533 | | 9 |
| 2 | 8,505 | to | 8,506 | | 9 |
| 3 | 8,466 | to | 8,467 | | 8 |
| 4 | 8,421 | to | 8,422 | | 8 |
| 5 | 8,372 | to | 8,373 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 15

Well Name: MARTINEZ #1H Date of Job: 4/15/2013

MIRU GoFrac (name of Co)

Pumped: 8,114 bbls of Fluid & 368,870 # of sand

158,140 #100 mesh
161,010 #40/70
49,720 #20/40

Avg. Rate 60.5 bpm Max Rate- 71.3 bpm

Avg. Pres: 7653 psi Max Pressur 8793 psi

ISIP- 5344 psi FG- 1.20 psi/ft

Final ISIP 4992 psi FG- 1.15 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/15/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 8,315 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 8,280 | to | 8,281 | | 9 |
| 2 | 8,251 | to | 8,252 | | 9 |
| 3 | 8,211 | to | 8,212 | | 8 |
| 4 | 8,170 | to | 8,171 | | 8 |
| 5 | 8,120 | to | 8,121 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 16

Well Name: MARTINEZ #1H Date of Job: 4/15/2013

MIRU GoFrac (name of Co)

Pumped: 8,166 bbls of Fluid & 374,460 # of sand

160,540 #100 mesh
163,790 #40/70
50,130 #20/40

Avg. Rate 65.2 bpm Max Rate- 77 bpm

Avg. Pres 7472 psi Max Pressu 8805 psi

ISIP- 5418 psi FG- 1.21 psi/ft

Final ISIP 4669 psi FG- 1.10 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/15/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 8,050 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 8,025 | to | 8,026 | | 9 |
| 2 | 7,981 | to | 7,982 | | 9 |
| 3 | 7,943 | to | 7,944 | | 8 |
| 4 | 7,895 | to | 7,896 | | 8 |
| 5 | 7,810 | to | 7,811 | | 7 |

POOH.

DC: $

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Frac Report: Stage # 17

Well Name: MARTINEZ #1H Date of Job: 4/15/2013

MIRU GoFrac (name of Co)

Pumped: 8,103 bbls of Fluid & 404,640 # of sand

169,820 #100 mesh
184,480 #40/70
50,340 #20/40

Avg. Rate 65.6 bpm Max Rate- 77.3 bpm

Avg. Pres: 7452 psi Max Pressur 8342 psi

ISIP- 5267 psi FG- 1.19 psi/ft

Final ISIP 4539 psi FG- 1.08 psi/ft

DC:

Perforating Report:

Well Name: MARTINEZ #1H Date of job: 4/15/2013

MIRU Horizontal Wireline Services (Co. Name) RIH W/:

(kind of plug) Set plug @ 7,756 ft.

Perforated as follows:

| | Perf Depth | to | Perf Depth | Charge | # of Holes |
|---|---|---|---|---|---|
| 1 | 7,726 | to | 7,727 | | 8 |
| 2 | 7,670 | to | 7,671 | | 8 |
| 3 | 7,635 | to | 7,636 | | 7 |
| 4 | 7,569 | to | 7,570 | | 6 |
| 5 | 7,525 | to | 7,526 | | 5 |

POOH.

DC: $

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Frac Report: Stage # 18

Well Name: MARTINEZ #1H Date of Job: 4/15/2013

MIRU GoFrac (name of Co)

Pumped: 7,575 bbls of Fluid & 373,990 # of sand

178,820 #100 mesh
138,900 #40/70
56,270 #20/40

Avg. Rate 63.2 bpm Max Rate- 70.8 bpm

Avg. Pres: 7478 psi Max Pressui 8205 psi

ISIP- 5494 psi FG- 1.22 psi/ft

Final ISIP 4388 psi FG- 1.06 psi/ft

DC:

## ADDITIVES TO BE USED IN FRACTURING OR STIMULATIONS



| Product Name | Product Use | Chemical Name | CAS Number |
|---|---|---|---|
| ALPHA 1427 | Biocide | Didecyl Dimethyl Ammonium Chloride | 007173-51-1 |
| | | Ethanol | 000064-17-5 |
| | | Glutaraldehyde (Pentanediol) | 000111-30-8 |
| | | Quaternary Ammonium Compound | 068424-85-1 |
| | | Water | 007732-18-5 |
| BF-7L | Buffer | Potassium Carbonate | 000584-08-7 |
| ClayCare | Clay Stabilizer | Choline Chloride | 000067-48-1 |
| | | Water | 007732-18-5 |
| Enzyme G-I | Breaker | No Hazardous Components | NONE |
| ENZYME G-NE | Breaker | No Hazardous Components | NONE |
| FRW-18 | Friction Reducer | Petroleum Distillate Hydrotreated Light | 064742-47-8 |
| GW-3LDF | Gel | Petroleum Distillate Blend | N/A-014 |
| | | Polysaccharide Blend | N/A-021 |
| SCALETROL 720 | Scale Inhibitor | Diethylene Glycol | 000111-46-6 |
| | | Ethylene Glycol | 000107-21-1 |
| XLW-32 | Crosslinker | Boric Acid | 010043-35-3 |
| | | Methanol (Methyl Alcohol) | 000067-56-1 |
| APB01 (AMMONIUM PERSUFATE BREAKER) | Breaker | Ammonium Persulfate | 007727-54-0 |
| B05 (LOW PH BUFFER) | Buffer | Acetic acid | 000064-19-7 |
| BXL03 Borate XL Delayed High Temp | Crosslinker | No Hazardous Components | NONE |
| FRW-200 | Friction Reducer | No Hazardous Components | NONE |
| HVG01 (TURQUOISE-1 BULK) | Gelling Agent | Petroleum Distillate Hydrotreated Light | 064742-47-8 |
| KCLS-4 | Clay Stabilizer | No Hazardous Components | NONE |
| LTB-1 | Breaker | Ammonium Persulfate | N/A |
| | | Ethanol | 000064-17-5 |

## ADDITIVES TO BE USED IN FRACTURING OR STIMULATIONS



| | | | |
|---|---|---|---|
| EC6110A | Biocide | Glutaraldehyde (Pentanediol) | 000111-30-8 |
| | | Quaternary Ammonium Compounds | N/A-063 |
| EC6629A | Biocide | No Hazardous Components | NONE |
| WBK-133 OXIDIZER | Breaker | Ammonium Persulfate | 007727-54-0 |
| WBK-134 | Breaker | Ammonium Persulfate | 007727-54-0 |
| | | Crystalline Silica (Quartz Sand, Silicon Dioxide) | 014808-60-7 |
| WCS-631LC | Clay Stabilizer | Proprietary Non Hazardous Salt | N/A-229 |
| | | Water | 007732-18-5 |
| WFR-55LA | Friction Reducer | No Hazardous Components | NONE |
| WGA-15L | Gel | Petroleum Distillate Hydrotreated Light | 064742-47-8 |
| WPB-584-L | Buffer | Potassium Carbonate | 000584-08-7 |
| | | Potassium Hydroxide | 001310-58-3 |
| WXL-101LE | Corsslinker | No Hazardous Components | NONE |
| WXL-101LM | Crosslinker | Petroleum Distillate Hydrotreated Light | 064742-47-8 |
| WXL-105L | Crosslinker | Water | 007732-18-5 |
| | | Ethylene Glycol | 000107-21-1 |
| | | Boric Acid | 010043-35-3 |
| | | Ethanolamine | 000141-43-5 |
| B244 Green-Cide 25G | Biocide | Glutaraldehyde | 111-30-8 |
| L071 Temporary Clay Stabilizer | Clay Stabilizer | Cholinium Chloride | 67-48-1 |
| Breaker J218 | Breaker | Diammonium Peroxidisulphate | 7727-54-0 |
| EB-Clean* J475 Breaker | | Diammonium Peroxidisulphate | 7727-54-0 |
| Friction Reducer B315 | Friction Reducer | Distillates (petroleum), Hydrotreated light Aliphatic Alcohol Glycol Ether | 64742-47-8 Proprietary |
| Friction Reducer J609 | | Ammonium Sulfate | 7783-20-2 |
| Water Gelling Agent J580 | Gel | Carbohydrate Polymer | Proprietary |
| Scale Inhibitor B317 | Scale Inhibitor | Trisodium ortho phosphate Ethane-1, 2-diol | 7601-54-9 107-21-1 |
| Borate Crosslinker J532 | Crosslinker | Aliphatic polyol Sodium tetraborate decahydrate | Proprietary 1303-96-4 |
| Crosslinker J610 | | Aliphatic polyol Potassium hydroxide | Proprietary 1310-58-3 |