U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

12/22/2023

Well Name: GRENIER B	**Well Location:** T29N / R10W / SEC 4 / NENW / 36.75824 / -107.8924	**County or Parish/State:** SAN JUAN / NM
Well Number: 4E	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMNM03561	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number: 3004529406	**Well Status:** Producing Gas Well	**Operator:** HILCORP ENERGY COMPANY

Subsequent Report

Sundry ID: 2767268

Type of Submission: Subsequent Report

Type of Action: Workover Operations

Date Sundry Submitted: 12/22/2023

Time Sundry Submitted: 08:42

Date Operation Actually Began: 12/06/2023

Actual Procedure: Hilcorp Energy performed a bradenhead repair workover on the subject well per the attached summary reports and wellbore diagram.

SR Attachments

Actual Procedure

GREENIER_B_4E__CBL_3__20231222084209.pdf

HILCORP_GREENIER_B_4E_QUICK_VIEW_20231222084152.pdf

HILCORP_GREENIER_B_4E_STANDARD_5inch_20231222084141.pdf

GRENIER_B_4E_CBL_20231222084132.pdf

GRENIER_B_4E_BH_Repair_Subsequent_20231222084024.pdf

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Released to Imaging: 4/6/2026 1:04:12 PM

Well Name: GRENIER B

Well Location: T29N / R10W / SEC 4 / NENW / 36.75824 / -107.8924

County or Parish/State: SAN JUAN / NM

Well Number: 4E

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMNM03561

Unit or CA Name:

Unit or CA Number:

US Well Number: 3004529406

Well Status: Producing Gas Well

Operator: HILCORP ENERGY COMPANY

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: TAMMY JONES

Signed on: DEC 22, 2023 08:42 AM

Name: HILCORP ENERGY COMPANY

Title: Regulatory Compliance Specialist

Street Address: 382 ROAD 3100

City: AZTEC **State:** NM

Phone: (505) 324-5185

Email address: TAJONES@HILCORP.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: MATTHEW H KADE

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647736

BLM POC Email Address: MKADE@BLM.GOV

Disposition: Accepted

Disposition Date: 12/22/2023

Signature: Matthew Kade

CONFIDENTIAL

12/06/2023 – MIRU. CK PRESSURES. SITP = 30 PSI, SICP = 30 PSI, SIBHP = 120 PSI - BLED OFF TO 0 PSI. SI AND HAD 10 PSI IN 15MINS. B/D WELL. ND WH. NU BOP, TEST & FUNCTION - GOOD. PULL HANGER AND P/U TBG, TAG FILL @ 6891'. RU PREMIER NDT, TOOH SCANNING TBG. TIH WITH 3-7/8" BIT TO 3000'. SIW. SDFN.

12/07/2023 – **VERBAL APPROVAL RC'VD FROM KENNY RENNICK, BLM & MONICA KUEHLING, NMOCD FOR MIRU & BH REPAIR PROCEDURE.** CK PRESSURES. SITP = 60 PSI, SICP = 60 PSI, SIBHP = 120 PSI. B/D WELL. TIH W/BIT TAG FILL @ 6888'. CO TO 6891'. TOOH L/D BIT. TIH W/4-1/2" RBP & SET @ 3115'. LOAD HOLE TO CLEAR. CIRC CLEAN. **NOTIFIED BLM & NMOCD FOR WITNESSED MIT TEST TOMORROW.** SIW. SDFN.

12/08/2023 – CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. B/D WELL. RU WELLCHECK (STARTING PSI AT 560, 30MIN ENDING PSI AT 560). BDW. **PERFORM MIT, WITNESSED BY NMOCD, ANTHONY BUNNY – TEST CSG TO 560 PSI FOR 30 MINS, GOOD TEST.** BDW. TOOH W/RETRIEVING HEAD. RU W/L. **RUN CBL FROM 3110' TO SURFACE.** RD W/L. TIH TO 1500'. UNLOAD WELL. LATCH ONTO RBP & RELEASE RBP. TOOH W/RBP. SIW. SDFN.

12/12/2023 – **VERBAL APPROVAL RC'VD FROM KENNY RENNICK, BLM & MONICA KUEHLING, NMOCD FOR REVISED BH REPAIR PROCEDURE.** CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. B/D WELL. PU 4 1/2 CIBP, TIH WITH TBG, SET @ 3100'. LOAD HOLE AND PT CSG AT 500 PSI {GOOD TEST}. TOH, LD/SETTING TOOL. RU/WL. RIH SHOOT SQUEEZE HOLES @ 1540' AND 1260', 2/SPF. POH. RD/WL. PU 4 1/2'' PKR AND UNLOADER, TIH SET @ 1507'. TRY TO EST CIRC OUT TOP HOLES, PUMPED INTO LOWER HOLES @ 1.5/BPM AT 800/PSI. PUMPED CAPACITY AND MORE, NO RETURNS. SWITCHED & TRIED PUMPING DOWN CASING INTO TOP HOLES, PUMPING INTO HOLES @ .5/BPM AT 1000/PSI. REVERSED DIRECTION TRYING TO BREAK SOMETHING LOOSE, WAS UNABLE TO GET RETURNS. TOH LD/PKR. MU/4-1/2'' CR, RIH SET RETAINER @ 1497'. STING OUT AND LOAD HOLE. STING IN AND ESTABLISH RATE OF 1.5/BPM AT 800/PSI. **PUMP PLUG #1 TO COVER 1497' TO 1540' INSIDE AND 1540' TO 1260' OUTSIDE PIPE:** MIX/PUMP 58 SX CLASS G AND DISPLACE WITH 5.3/BBLS FRESH. STING OUT, REVERSE OUT. {NOTE, MONITORED CASING AND DID NOT SEE ANY CIRCULATION}. PULL EOT UP TO 1283'. **PUMP BALANCD PLUG #2 TO COVER FROM 1283' TO 1133' HOLES@1260':** MIX/PUMP 11.3 SX CLASS G AND DISPLACE WITH 4.3/BBLS. POH SLOW. LD 6/JTS TO GET ABOVE PLUG AND TOH. LOAD CASING W/2 BBLS FROM TBG DISPLACEMENT, START TO SQUEEZE CEMENT AWAY, PUMPED 1/4 BBL AND PRESSURED UP TO 1000/PSI. SHUT IN WELL DUE TO LEAK, FIXED LEAK AND PRESSURED BACK UP ON VALVE, OPENED BACK UP AND HAD 800/PSI. **ATTEMPT TO SQUEEZE AWAY CEMENT, LOCKED UP AT 1100/PSI. AND WAS HOLDING.** SIW. RD/CMNT CREW. SDFN. {NOTE, RIG WILL BE SHUT DOWN TOMORROW TO LET CEMENT SET UP}

12/13/2023 – WOC.

12/14/2023 – CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. MU/BHA FOR DRILLING CEMENT 3-7/8'' STRINGMILL W/TRI CONE BIT, PU 6 X 3 1/8'' DRILL COLLARS, TIH TAG TOC@1100', PU/POWER SWIVEL AND BREAK CIRCULATION. DRILLED TO 1230' - CUTTINGS STILL REAL FINE AND GREEN, NOTIFIED ENGINEER. DECISION MADE TO GIVE CEMENT ONE MORE DAY. CIRCULATE HOLE CLEAN, HANG BACK SWIVEL LD/2 JTS. SECURE WELL, WINTERIZE EQUIPMENT & SDFN.

12/15/2023 – CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. RIH, TAG BACK UP AT 1219'. SWIVEL UP AND DRILL OUT PLUG #1. CEMENT SET UP A LITTLE BETTER, TOOK 30/MINS TO DRILL 20', FELL OUT AT 1285'. CIRC CLEAN. HANG BACK SWIVEL AND TEST SQUEEZE HOLES TO 750/PSI, GOOD TEST. RIH CHECK FOR STRINGERS, TAG CEMENT RETAINER AT 1497'. CIRCULATE CLEAN, **NOTIFIED**

ENGINEER AND NMOCD. TOH TO RUN CBL. RU W/L. **RUN CBL FROM 1497' TO SURFACE. SEND OFF TO ENGINEER AND NMOCD.** CBL SHOWS ON LOWER PLUG WE HAVE GOOD CEENT FROM HOLES @ 1540' TO 1408' AND ON UPPER HOLES @ 1260' WE HAVE A 6' AREA THAT IS 100% BOND. **NMOCD APPROVED TO RUN AN AUDIO LOG**. RD W/L. TIH W/BHA TO DRILL AND COLLARS. TAG CR @ 1497', SWIVEL UP. PU/OFF BOTTOM AND CIRC CLEAN. LD 1/JT AND SWIVEL. SIW. SDFN.

12/16/2023 – CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. HANG BACK SWIVEL, TOH AND SWAP OUT BIT FOR A JUNK MILL, TIH AND SWIVEL BACK UP. DRILL UP RETAINER AND CEMENT, AFTER FALLING THROUGH WE PICKED UP 2/JTS TO CHECK FOR STRINGERS, DID NOT SEE ANY, CIRCULATED HOLE CLEAN, HANG BACK SWIVEL. PT {START 550/PSI. WAS LOSING 1/4 POUND A MIN. COULD NOT FIND ANY SURFACE LEAKS.} TOH STAND BACK COLLARS. RU W/L. **RUN TEMPERATURE SURVEY AND AUDIO LOG**. RD W/L. SIW. SDFW.

12/18/2023 – CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. PRESSURE TEST ON CASING AGAIN, {STARTED AT 660/PSI. AFTER 1.5 HRS WE WERE DOWN TO 600/PSI. 2.5 HRS DOWN TO 560/PSI.} BLED OFF PRESSURE. PU AS1-X PKR , TIH AND SET BETWEEN SQUEEZE HOLES, SET PKR @1380'. TEST LOWER SET FIRST FROM 1380' TO 3100' {START-685/PSI. 678/PSI 10/MINS, HAD SOME AIR. 678/PSI AFTER 40/MINS. GOOD TEST.} {SURFACE TO 1260' START- 679/PSI. 661/PSI IN 15/MINS, 650/PSI. IN 30/MINS. DID NOT PASS.} NOTIFY ENGINEER, RELEASE PKR TOH, **ESTABLISHED PLAN W/NMOCD, WE WILL SHOOT HOLES @ 1308' AND RIH SET RETAINER @ 1280' AND DO A HESITATION SQUEEZE**. RU W/L. SHOOT HOLES @ 1308'. POH EST RATE OF .25 TO .50 BPM@500/PSI. RD W/L. MU 4-1/2'' CEM/RET, TIH SET @ 1280'. STING OUT LOAD HOLE. STING IN ESTABLISH RATE WITH PUMP TRUCK .4/BPM AT 1000/PSI. LEFT CASING OPEN TO MONITOR FOR COMMUNICATION WITH HOLES @ 1260'. **MIX/PUMP 30/SX CLASS G** 1.15/YIELD 15.5/PPG 5GALS/SK W/1% CALCIUM TOTAL OF 6/BBLS SLURRY. WAS GETTING 1.4/BPM AFTER WE HAD 1/2 BBL SLURRY BELOW RETAINER AND 1/2 BBL SLURRY BEHIND PIPE PRESSURE CLIMBED UP TO 1000/PSI. GO TO DISPLACEMENT. SHUT DOWN PUMP AND LET PRESSURE DROP OFF TO 800/PSI. BUMP BACK UP, WAS ABLE TO GET ANOTHER 2.25/BBLS SLURRY BEHIND PIPE HESITATING CEMENT BEFORE IT LOCKED UP AT 1050/PSI. PRESSURE DID NOT DROP OFF AT ALL, WE MANAGED TO GET 2 3/4 BBLS SLURRY/13.42 SX BEHIND PIPE, THAT IS TOTAL OF 68' AND .43/BBLS SLURRY BELOW RETAINER. STING OUT WITH 1050/PSI UNDER RETAINER, REVERSE CLEAN WITH AN EXTRA 10/BBLS. WE DID SEE WHAT COULD OF BEEN A LITTLE COMMUNICATION WITH TOP HOLES AT 1260' UNTIL WE HAD 1/BBL SLURRY BELOW RETAINER THEN IT STOPPED. TOH LD/SETTING TOOL, TOP OFF WELL, SECURE WELL AND SDFN.

12/19/2023 – WOC

12/20/2023 – CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. MU BHA 3-7/8'' JUNK MILL W/3-7/8'' STRING MILL. TIH W/COLLARS/TBG, TAG CR @ 1280'. LOAD/TEST UPPER HOLES @ 1260' BEFORE DRILLING OUT RETAINER - {START, 660/PSI. 15 MINS/657 PSI. 30 MINS/655 PSI.}. DO RETAINER & CEMENT. CIRC CLEAN. TEST SQUEEZE HOLES @ 1308' - {NOTE, WE WILL BE TESTING ALL THE SQUEEZE HOLES AT THE SAME TIME, WE KNOW LOWER SET@1540' TESTED GOOD, TOP SET@1260' LOST 5/PSI. IN 30/MINS} - {START, 690/PSI. 15 MINS/584 PSI. 30 MINS/533 PSI. A LOSS OF 157/PSI. TEST FAILED}. TOH STAND BACK COLLARS. LD/BHA. RU W/L AND RUN 3RD CBL. **SEND OFF CBL TO ENGINEER TO TALK WITH BLM AND NMOCD ABOUT PLAN FORWARD.** RD W/L. CBL #3 RESULTS: TOP HOLES@1260' CEMENT BEHIND PIPE 1256' TO 1262'. MIDDLE HOLES@1308' CEMENT BEHIND PIPE 1298' TO 1316'. LOWER HOLES@1540' CEMENT BEHIND PIPE 1464' TO 1546'. SIW. SDFN.

GRENIER B 4E 30.045.29406 BRADENHEAD REPAIR

CK PRESSURES. SICP = 0 PSI, SIBHP = 15 PSI. TIH W/TBG & RETRIEVING HEAD TO 2500'. UNLOAD WELL. ENGAGE & RELEASE RBP @ 3600'. TOOH W/RBP. TIH W/208 JTS 2-3/8" 4.7# J-55 TBG SET @ 6545', SN @ 6543'. ND BOP. NU WH. PUMP 5 BBLS CUSHION, DROP BALL. PT TBG TO 500# - GOOD. PRESSURE UP TO 1150#, BUMP CHECK. UNLOAD WELL, PURGED UP TBG. RD. RIG RELEASED.

12/21/2023 – CK PRESSURES. SITP = 0 PSI, SICP = 0 PSI, SIBHP = 120 PSI. TIH OPEN ENDED TO LD ALL TBG, CAN ONLY RUN IN 3000' AT A TIME DUE TO CIBP @ 3100'. LD ALL TBG AND DRILL COLLARS, RACK BACK SWIVEL. ND BOP. NU WH. {NOTE: TBG/HANGER IS IN WELLHEAD}. SECURE WELL WITH NO TBG IN THE HOLE, NOTE LEFT FLUID LEVEL DOWN TO AVOID WELLHEAD FREEZING UP. RD. RIG RELEASED.

{NOTE: ROUSTABOUTS RIGGED UP A 1'' LINE OFF BRADENHEAD TO PRODUCTION PIT TO MONITOR GAS FLOW AND PRESSURE}

APPROVAL RECIEVED FROM MONICA KUEHLING, NMOCD & KENNY RENNICK, BLM TO SHUT-IN WELL & RELEASE RIG FOR P&A PLAN. BH MUST BE PRODUCED TO THE PIT WITH UPDATES TRACKED IN SPREADSHEET AND EMAILED TO BLM & NMOCD.

Tammy Jones

From: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>
Sent: Thursday, December 21, 2023 8:44 AM
To: Rennick, Kenneth G; Jackson Lancaster; Farmington Regulatory Techs
Cc: Austin Harrison; Trey Misuraca; Hayden Moser; John Brown; Jose Morales; Monty Striegel - (C); Kade, Matthew H
Subject: RE: [EXTERNAL] Grenier B 4E

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Concerning the Grenier B 4E 30-045-29406 bradenhead issue.

NMOCD approves moving the rig off at this time with prior approval from the BLM

We believe there may be enough seal at the top of the Kirtland to attempt to bleed the pressure off of the Ojo water formation. This is a test to see if bleedoff can be accomplished.

The bradenhead is required to be produced to a production pit immediately upon rig move. Prior to the Holiday. This is not a wait two weeks to do it. Notify NMOCD when put in place so that we can inspect.

The well should be shut in weekly for 24 hours with the pressure and volume recorded on a spreadsheet and submitted to both the BLM and NMOCD

Discussion should be made in 30 days on how to proceed.

Approval from both BLM and NMOCD should be attained.

If you have any questions, please let me know

Thank you

Monica Kuehling
Compliance Officer Supervisor
Deputy Oil and Gas Inspector
New Mexico Oil Conservation Division
North District
Office Phone: 505-334-6178 ext. 123
Cell Phone: 505-320-0243
Email - monica.kuehling@emnrd.nm.gov

From: Rennick, Kenneth G <krennick@blm.gov>
Sent: Wednesday, December 20, 2023 4:11 PM
To: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>; Jackson Lancaster <Jackson.Lancaster@hilcorp.com>; Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>
Cc: Austin Harrison <aharrison@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Jose Morales <jomorales@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>; Kade, Matthew H <mkade@blm.gov>
Subject: Re: [EXTERNAL] Grenier B 4E

BLM concurs with NM OCD on the time limitations. Rig down, moving off the well will only be appropriate if indeed the plugging proposal is submitted promptly with work commencing shortly after.

Kenneth (Kenny) Rennick

Petroleum Engineer

Bureau of Land Management
Farmington Field Office
6251 College Blvd
Farmington, NM 87402

Email: krennick@blm.gov
Mobile & Text: 505.497.0019

From: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>
Sent: Wednesday, December 20, 2023 3:36 PM
To: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>; Rennick, Kenneth G <krennick@blm.gov>; Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>
Cc: Austin Harrison <aharrison@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Jose Morales <jomorales@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>
Subject: RE: [EXTERNAL] Grenier B 4E

Jackson – there will be a time limit on leaving the bradenhead the way it is – if plugging is planned you will still have to deal with the bradenhead – we would not let you go past the Kirtland with pressure on the bradenhead

---

From: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Sent: Wednesday, December 20, 2023 3:34 PM
To: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>; Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>
Cc: Austin Harrison <aharrison@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Jose Morales <jomorales@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>
Subject: RE: [EXTERNAL] Grenier B 4E

Monica,

I did not mean a TA. We would like to rig down, move off the well. This would give us time to file an NOI and come up with P&A plan.

Jackson Lancaster
SJS Ops Engineer
Hilcorp Energy Company
Office: 713-289-2629
Cell: 432-413-4109

From: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>
Sent: Wednesday, December 20, 2023 4:29 PM
To: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>; Rennick, Kenneth G <krennick@blm.gov>; Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>

Cc: Austin Harrison <aharrison@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Jose Morales <jomorales@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>
Subject: RE: [EXTERNAL] Grenier B 4E

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Jackson – A TA is not possible with pressure on the bradenhead.

I will have to discuss with management in the morning.

Monica

From: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Sent: Wednesday, December 20, 2023 3:25 PM
To: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>; Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>
Cc: Austin Harrison <aharrison@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Jose Morales <jomorales@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>
Subject: [EXTERNAL] Grenier B 4E

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Monica/Kenny,

After the recent unsuccessful attempts to fix the bradenhead issue on the Grenier B 4E, we feel it is in the best interest of Hilcorp to move on from this well.

We would like to request permission to TA this well in preparation for future P&A. This will give us time to file appropriate documents with the state and give our ops team time to come up with a gameplan on the P&A process.

Please let us know if you have any questions or concerns regarding this path forward.

Thanks,

Jackson Lancaster
SJS Ops Engineer
Hilcorp Energy Company
Office: 713-289-2629
Cell: 432-413-4109

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Tammy Jones

From: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>
Sent: Monday, December 18, 2023 12:45 PM
To: Rennick, Kenneth G; Jackson Lancaster
Cc: Tammy Jones; Priscilla Shorty; Monty Striegel - (C); Austin Harrison; John Brown; Trey Misuraca; Hayden Moser
Subject: RE: [EXTERNAL] RE: Grenier B 4E

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NMOCD approves below

Thank you

Monica Kuehling
Compliance Officer Supervisor
Deputy Oil and Gas Inspector
New Mexico Oil Conservation Division
North District
Office Phone: 505-334-6178 ext. 123
Cell Phone: 505-320-0243
Email - monica.kuehling@emnrd.nm.gov

From: Rennick, Kenneth G <krennick@blm.gov>
Sent: Monday, December 18, 2023 12:43 PM
To: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>; Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>
Cc: Tammy Jones <tajones@hilcorp.com>; Priscilla Shorty <pshorty@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>; Austin Harrison <aharrison@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>
Subject: Re: [EXTERNAL] RE: Grenier B 4E

The BLM finds the proposal appropriate.

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From: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Sent: Monday, December 18, 2023 12:31:26 PM
To: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>
Cc: Tammy Jones <tajones@hilcorp.com>; Priscilla Shorty <pshorty@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>; Austin Harrison <aharrison@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>
Subject: [EXTERNAL] RE: Grenier B 4E

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Monica/Kenny,

Upon talking with our ops team and management here is our path forward.

We have wireline headed to location now to shoot additional squeeze holes at 1310'. Just below that casing collar. From there we will set a cement retainer below our top squeeze perfs at 1260'.
Cement crews will arrive on location and perform a hesitation squeeze. We will let the cement cure, drill out the retainer and cement before running a CBL to verify cement coverage.

Please let us know if you have any questions or concerns with this plan.

Thanks,

Jackson Lancaster
SJS Ops Engineer
Hilcorp Energy Company
Office: 713-289-2629
Cell: 432-413-4109

From: Jackson Lancaster
Sent: Monday, December 18, 2023 6:51 AM
To: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>
Cc: Tammy Jones <tajones@hilcorp.com>; Priscilla Shorty <pshorty@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>; Austin Harrison <aharrison@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>
Subject: Grenier B 4E

Monica/Kenny,

Attached is the noise log we ran on the Grenier B 4E. One pass with the Bradenhead closed, and one with the bradenhead open. Our interpretation of the log shows that the inflow of gas appears to be coming from about 750'.

Can you take a look and let us know if you have any questions or concerns with our assessment.

If not, we would like to request permission to MIT the Casing and produce the Bradenhead to the pit while monitoring pressure.

Thanks,

Jackson Lancaster
SJS Ops Engineer
Hilcorp Energy Company
Office: 713-289-2629
Cell: 432-413-4109

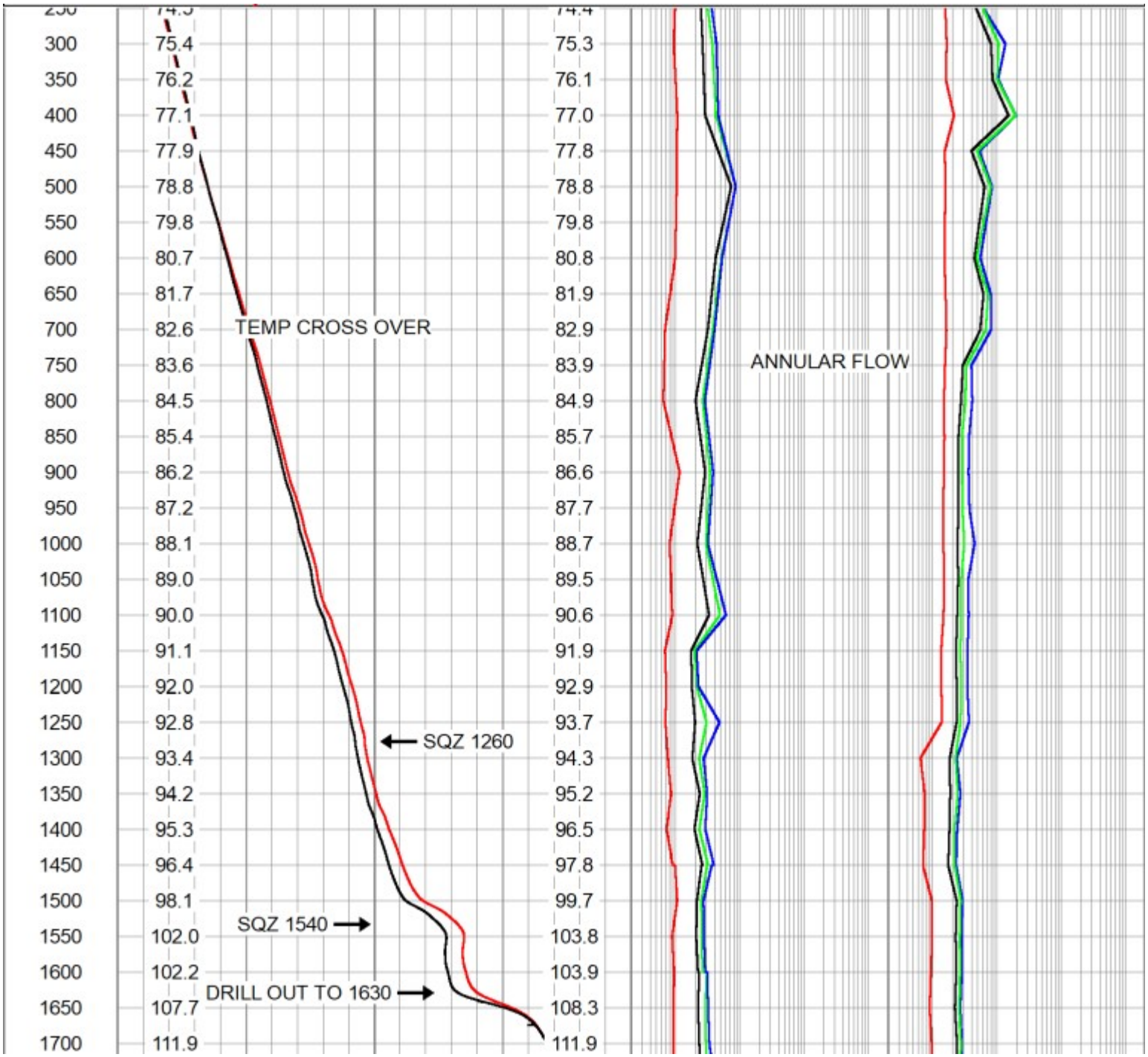
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Tammy Jones

From: Jackson Lancaster
Sent: Monday, December 18, 2023 10:37 AM
To: Kuehling, Monica, EMNRD; Rennick, Kenneth G
Cc: Tammy Jones; Priscilla Shorty; Monty Striegel - (C); Austin Harrison; John Brown; Trey Misuraca; Hayden Moser
Subject: RE: [EXTERNAL] Grenier B 4E

Good morning Monica,

I just wanted to provide more color to our assessment that the source is from 750'.



On the flowing pass (Far left) the shift left and then shift back right on all the frequencies is the tool getting a dampened noise response from our fresh squeeze cement and not allowing any gas to continue to migrate up the back side.
Our interpretation of the static pass noise is gas expansion and cooling effect based on the separation of the temperature surveys of the open and shut in pass just above our cement squeeze work. We believe if the source was coming from below us we would see the same noise response above and below the squeeze, and we do not see that here.

We do however see similar responses above 750' on both passes. Our temperature surveys also converge here and are the same from 750' to surface.

We went and checked our open hole logs and we show a pretty significant resistivity kick from 750'-700'. This coupled with the noise log are what caused us to believe the source of gas was coming from ~750'.

I would also like to get some color on y'alls interpretation as well if possible before proceeding with any more squeeze work.

Thanks,

Jackson Lancaster
SJS Ops Engineer
Hilcorp Energy Company
Office: 713-289-2629
Cell: 432-413-4109

From: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>
Sent: Monday, December 18, 2023 8:43 AM
To: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>; Rennick, Kenneth G <krennick@blm.gov>
Cc: Tammy Jones <tajones@hilcorp.com>; Priscilla Shorty <pshorty@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>; Austin Harrison <aharrison@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>
Subject: RE: [EXTERNAL] Grenier B 4E

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Good morning Jackson

After review of logs – cbl prior to cementing cbl after cementing and noise log

We are still seeing movement at 1250

You can do one of two things – either do a suicide squeeze from 1400 to 1300

Or Perforate at 1310 and do a hesitation squeeze until it totally locks up.

Would advise the hesitation squeeze.

Thank you

Monica Kuehling
Compliance Officer Supervisor
Deputy Oil and Gas Inspector
New Mexico Oil Conservation Division
North District
Office Phone: 505-334-6178 ext. 123
Cell Phone: 505-320-0243
Email - monica.kuehling@emnrd.nm.gov

From: Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Sent: Friday, December 15, 2023 2:07 PM
To: Kuehling, Monica, EMNRD <monica.kuehling@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>
Cc: Tammy Jones <tajones@hilcorp.com>; Priscilla Shorty <pshorty@hilcorp.com>; Monty Striegel - (C) <Monty.Striegel@hilcorp.com>; Austin Harrison <aharrison@hilcorp.com>; John Brown <jbrown@hilcorp.com>; Trey Misuraca <Trey.Misuraca@hilcorp.com>; Hayden Moser <Hayden.Moser@hilcorp.com>
Subject: [EXTERNAL] Grenier B 4E

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Moncia/Kenny,

I Have attached both CBLs we have run on the Grenier B 4E. After looking at both, it appears we were able to solidify the cement right at the top of the Kirtland. The log appears to show we have added about 8' of good cement there. On the bottom set of perfs it looks like we brought cement up from 1540' to about 1410'.

With this new information it is our proposal to run a noise log across this interval to see if it can tell us where the bradenhead gas is coming from. We suspect that the gas is coming from above the Kirtland top. If that suspicion is confirmed, we would like to request permission to RTP this well pending a formal MIT with the OCD present and produce this bradenhead gas to the pit to try and bleed down the pressure. If the log continues to show the source below the Kirtland we will circle up with the team and find another place to try a circulation squeeze.

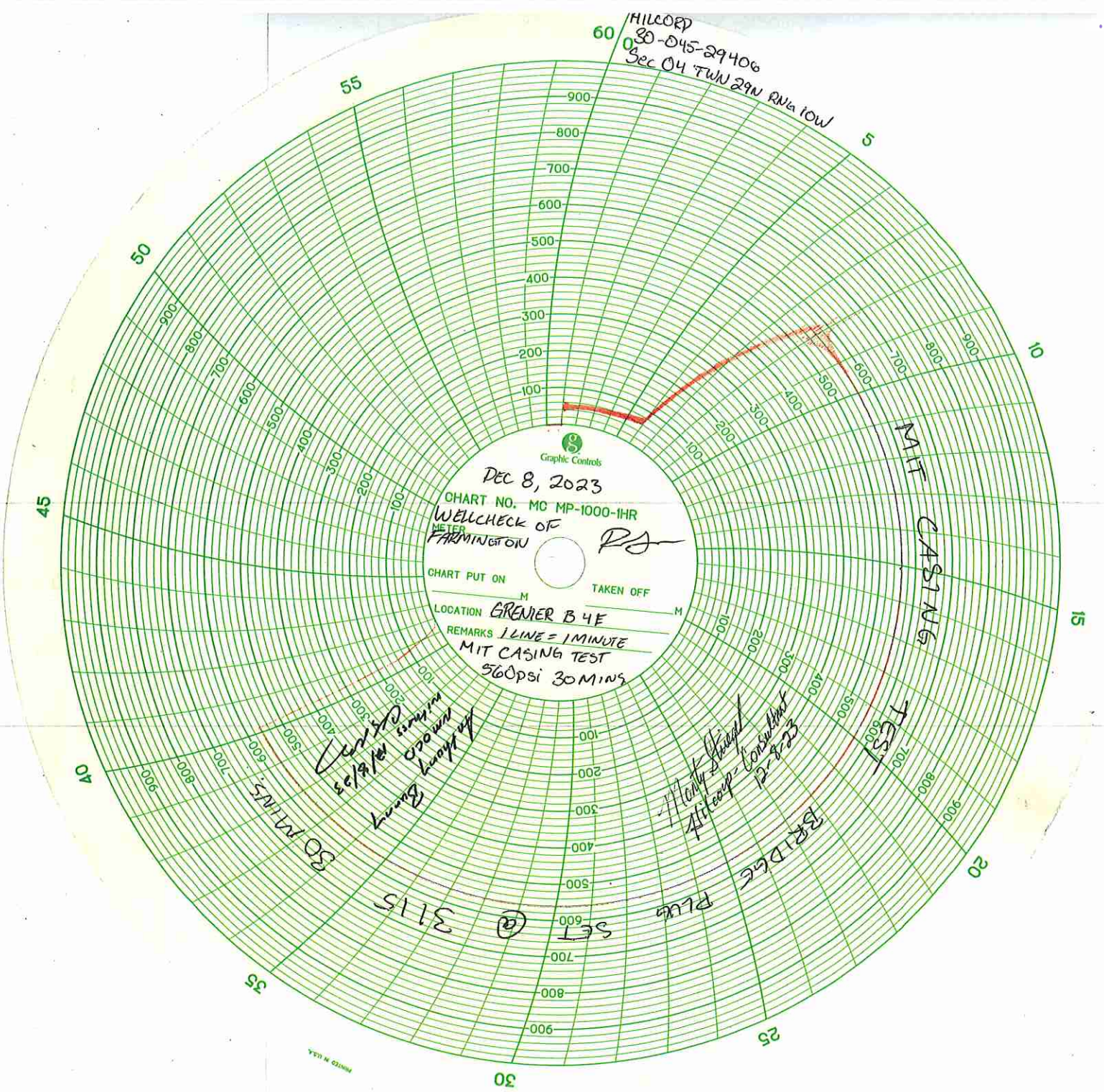
Please reach out if you have any questions or concerns with this proposal.

Thanks,

Jackson Lancaster
SJS Ops Engineer
Hilcorp Energy Company
Office: 713-289-2629
Cell: 432-413-4109

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Released to Imaging: 4/6/2026 1:04:12 PM

Hilcorp Energy Company

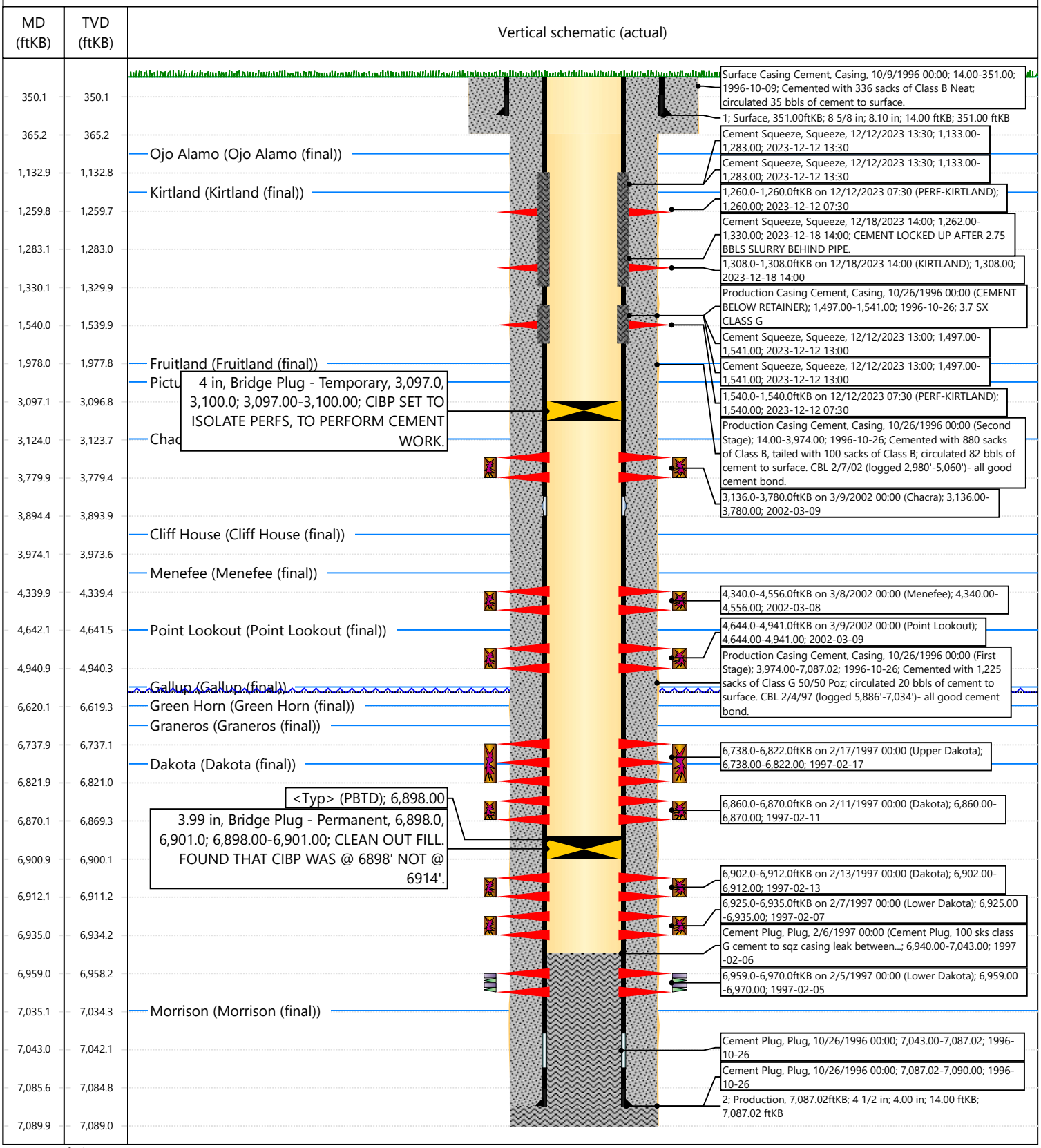
Current Schematic - Version 3

Well Name: GRENIER B #4E

API / UWI	Surface Legal Location	Field Name	Route	State/Province	Well Configuration Type
3004529406	004-029N-010W-C	BSN DK(PRO GAS) #0068	0306	NEW MEXICO	Vertical

Ground Elevation (ft)	Original KB/RT Elevation (ft)	RKB to GL (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
5,951.00	5,965.00	14.00		

Original Hole [Vertical]



Sante Fe Main Office
Phone: (505) 476-3441

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Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 297311

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 297311
	Action Type: [C-103] Sub. Workover (C-103R)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	Record clean up, work already performed. Operator shall contuine to report BH pressures monthly to OCD and produce to PIT	4/6/2026