CO 10516-02115

Mechanical Integrity Test
Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

Date: 01 / 17 / 03

EPA Witness: _____

Test conducted by: Rick Ohlemeier, K.P. Kauffman Co., Inc. 303-472-2753

Others present: Josh Thomason, Halliburton Energy Services, 303-634-2581

Well Name: Suckla Farms Inj. Well #1 Type: ER (SWD) Status: AC TA UC

Field: Spindle - CO10516-02115

Location: SE NW Sec: 10 T 1 (N)/S R 67 E/(W) County: Weld State: Co.

Operator: Wittenberg Disposal, LLC, Denver, Co.

Last MIT: 02 / 01 / 01 Maximum Allowable Pressure: 3700 PSIG

REVIEWED
BY: [signature]
DATE: 1/23/03

Is this a regularly scheduled test? [ ] Yes [X] No

Initial test for permit? [ ] Yes [X] No

Test after well rework? [X] Yes [ ] No

Well injecting during test? [ ] Yes [X] No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: 0/0 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	0 psig	psig	psig
End of test pressure	0 psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	1005 psig	psig	psig
5 minutes	1003 psig	psig	psig
10 minutes	1000 psig	psig	psig
15 minutes	1000 psig	psig	psig
20 minutes	1000 psig	psig	psig
25 minutes	1000 psig	psig	psig
30 minutes	1000 psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	[X] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

Does the annulus pressure build back up after the test? [ ] Yes [X] No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

1 BBL PUMPED IN, 1 BBL RETURNED

[signature] [signature]

JAN 21 Office of Compliance & Environmental

REVIEWED
BY:
DATE:
TEXAS
Pink (blue)
psi
Water Instruments Disposal, Inc.
Succia Farms Inc. Well #1
TIME PUT ON
3:05 P.M.
DATE PUT ON
1-17-03
METER NUMBER
TIME TAKEN OFF
3:39 P.M.
DATE TAKEN OFF
1-17-03
SIGNED
1-17-03
START
END
PRESSURE
PRINTED IN U.S.A.
PRINTED BY CALIBRATED CHARTS CORP.

TEJAS
Instruments, Inc.
Lutcher Brown Pressure, LLC
METER NUMBER
TIME PUT ON
3:05 P
DATE PUT ON
1-17-03
TIME TAKEN OFF
3:39 P
DATE TAKEN OFF
1-17-03
Suckla Farms Inst. well #1
1-17-03
PRESSURE
12 MOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
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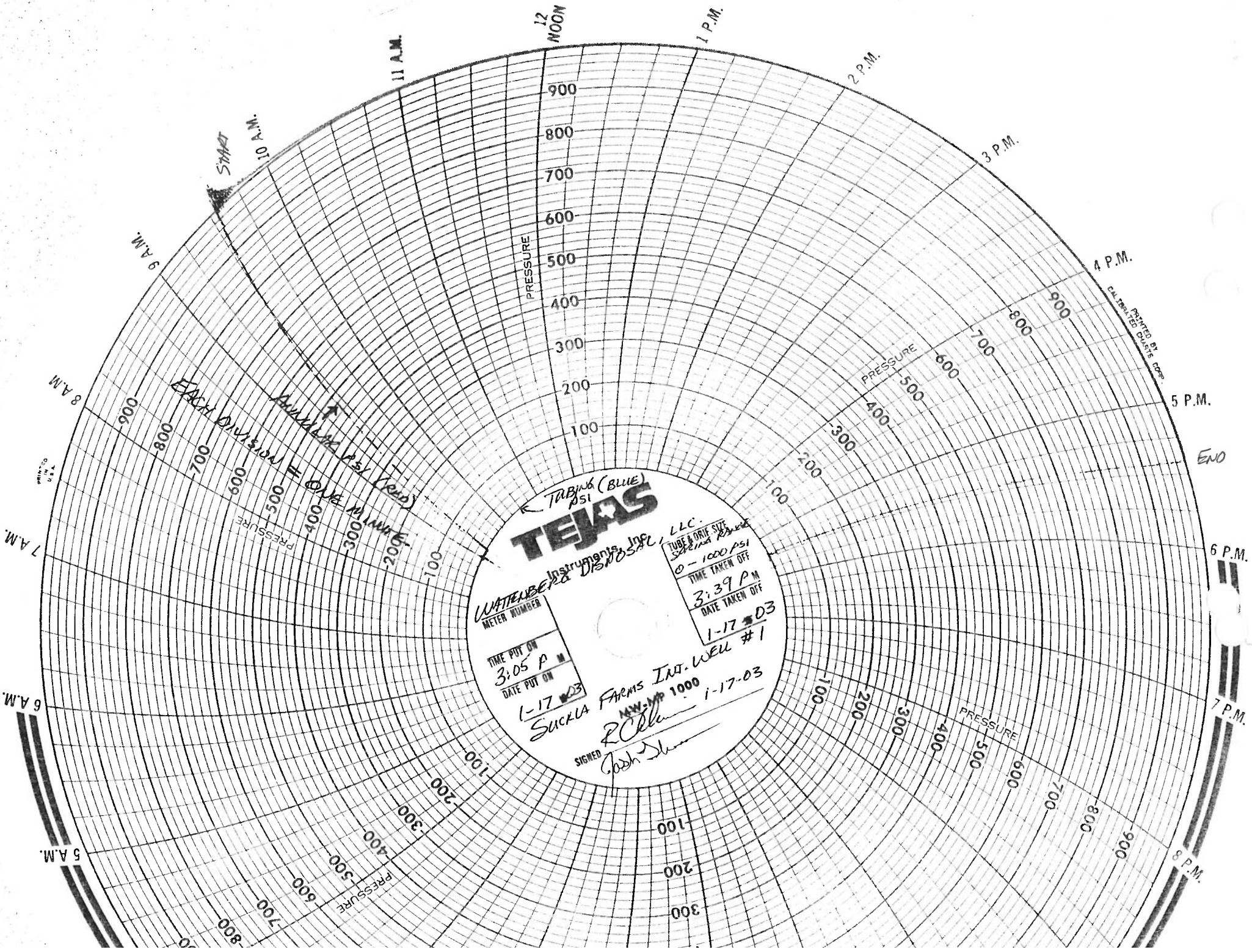
8 A.M.
9 A.M.
10 A.M.
11 A.M.
START
END
REVIEWED
BY
DATE


12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
START
END
PRESSURE
TEJAS
Instruments, Inc
TUBE & ORIF SIZE
0 – 1000 PSI
TIME TAKEN OFF
3:39 PM
DATE TAKEN OFF
1-17-03
METER NUMBER
TIME PUT ON
3:05 PM
DATE PUT ON
1-17-03
SUCKLA FARMS INT. WELL #1
1-17-03
SIGNED
1000

MIT Entered in U2
N. Wiser 1-17-03

FILE IN C01516-02115

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

Date: 01 / 17 / 03

EPA Witness: _____

Test conducted by: Rick Oakemeier, K.P. Kauffman Co., Inc. 303-472-2753

Others present: Josh Thomason, Halliburton Energy Services, 303-634-2581

Well Name: Suchla Farms Inj. Well #1 Type: ER (SWD) Status: AC TA UC

Field: Spindle

Location: SE NW Sec: 10 T 1 (N)/S R 67 E/(W) County: Weld State: Co.

Operator: Wittenberg Disposal, LLC Denver, Co.

Last MIT: 02 / 01 / 01 Maximum Allowable Pressure: 3700 PSIG

Is this a regularly scheduled test? [ ] Yes [X] No

Initial test for permit? [ ] Yes [X] No

Test after well rework? [X] Yes [ ] No

Well injecting during test? [ ] Yes [X] No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: 0/0 psig

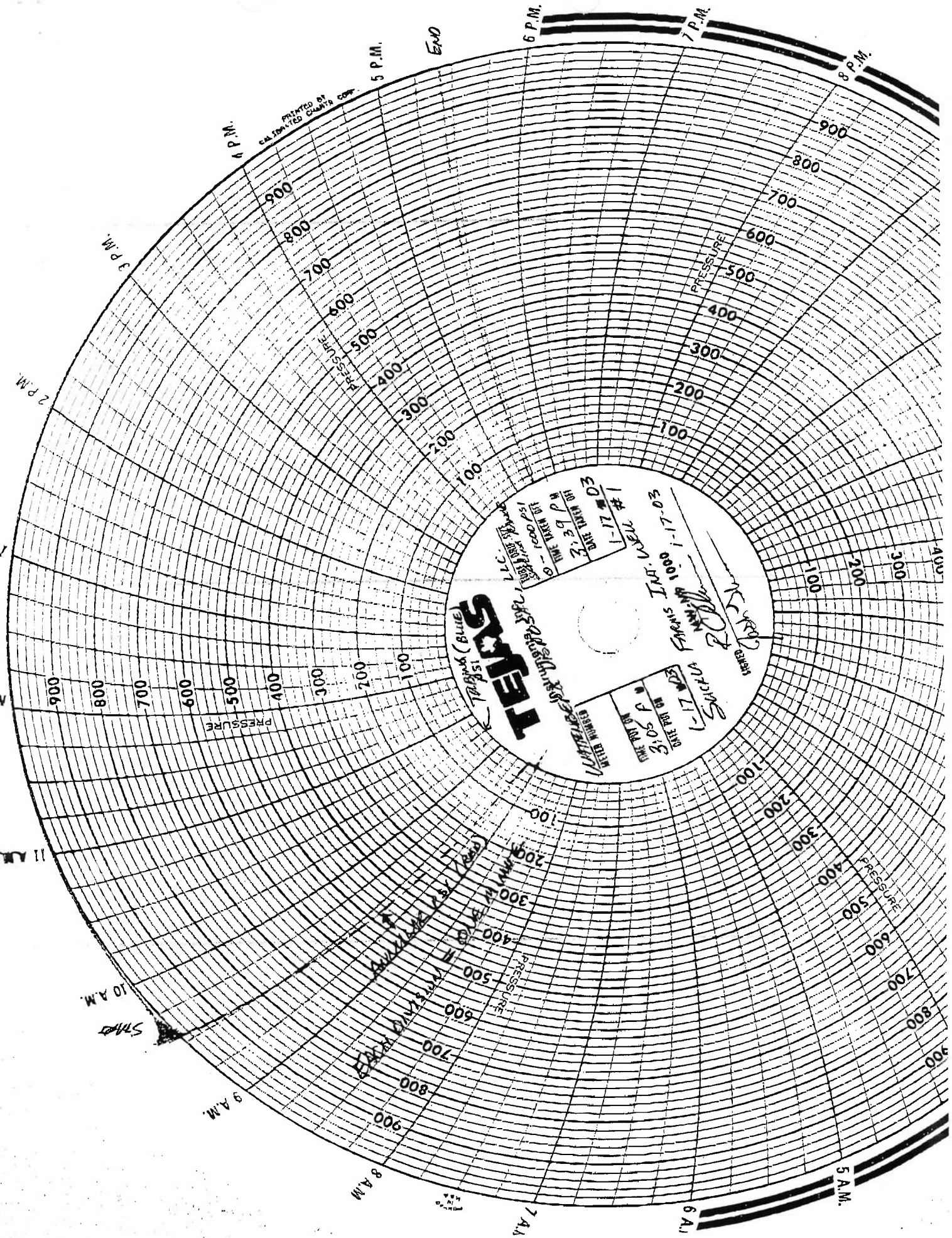
MIT DATA TABLE	Test #1		Test #2		Test #3	
TUBING	PRESSURE					
Initial Pressure	0	psig		psig		psig
End of test pressure	0	psig		psig		psig
CASING / TUBING	ANNULUS		PRESSURE			
0 minutes	1005	psig		psig		psig
5 minutes	1003	psig		psig		psig
10 minutes	1000	psig		psig		psig
15 minutes	1000	psig		psig		psig
20 minutes	1000	psig		psig		psig
25 minutes	1000	psig		psig		psig
30 minutes	1000	psig		psig		psig
____ minutes		psig		psig		psig
____ minutes		psig		psig		psig
RESULT	[X] Pass	[ ] Fail	[ ] Pass	[ ] Fail	[ ] Pass	[ ] Fail

Does the annulus pressure build back up after the test? [ ] Yes [X] No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

1 BBL PUMPED IN, 1 BBL RETURNED


PRINTED BY CALIBRATED CHARTS CORP.
TEL-TAK
PRESSURE
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
END

FAX COVER SHEET

Date: 1-17-03

To: KEN PHILLIPS @ EPA

Fax # 303/312-6409 RE-TEST

Message: SUCILLA FARMS INJ. WELL #1 MIT FORMS & REPORTS.
WE REQUEST APPROVAL FOR RESUMING INJECTION — IF POSSIBLE, BEFORE THE END OF TODAY, FRI. 01-17-03. THANK YOU.

From: RICK OHLEMEIER, K.P. KAUFFMAN CO. 303/472-2753 (CELL)
303/833-3285 (FAX)

I am transmitting 3 pages including the cover sheet....

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

Date: 01 / 17 / 03

EPA Witness: _____

Test conducted by: RICK OHLEMEYER, KP KAUFFMAN CO., INC. CELL # 303/472-2753

Others present: LOUIE GIBSON GIBSON ENTERPRISES 970-284-7705

Well Name: SUCKLA FARMS INJ. WELL #1 Type: ER (SWD) Status: AC TA UC

Field: SPINDLE

Location: SENW Sec: 10 T 1 (N)/S R 67 E/(W) County: WELD State: CO

Operator: WATTENBERG DISPOSAL, LLC DENVER, CO

Last MIT: 02 / 01 / 01 Maximum Allowable Pressure: 3700 PSIG

WHEN INJECTING, TUBING PRESSURE DOES NOT EXCEED 550 PSI.

Is this a regularly scheduled test? [ ] Yes [X] No

Initial test for permit? [ ] Yes [X] No

Test after well rework? [X] Yes [ ] No

Well injecting during test? [ ] Yes [X] No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: Ø / Ø psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING	PRESSURE		
Initial Pressure	0 psig	psig	psig
End of test pressure	0 psig	psig	psig
CASING / TUBING	ANNULUS	PRESSURE	
0 minutes	910 psig	psig	psig
5 minutes	910 psig	psig	psig
10 minutes	910 psig	psig	psig
15 minutes	910 psig	psig	psig
20 minutes	910 psig	psig	psig
25 minutes	910 psig	psig	psig
30 minutes	910 psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	[X] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

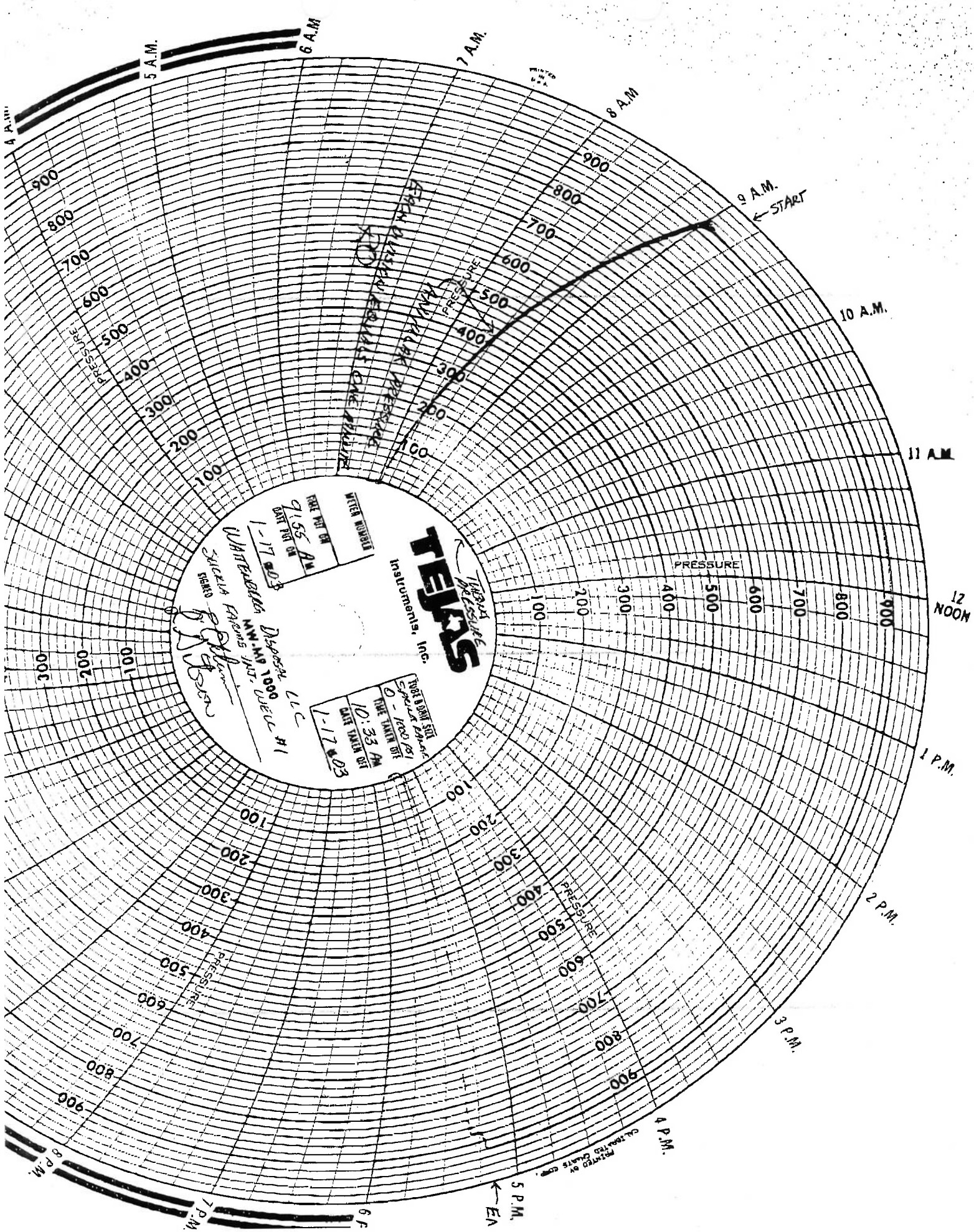
Does the annulus pressure build back up after the test? [ ] Yes [X] No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

ONE BBL. FLUID PUMPED IN, ONE BBL. FLUID RECOVERED.

DATE: 1-17-03 Louie Gibson


TEJAS
Instruments, Inc.
METER NUMBER
TIME PUT ON
DATE PUT ON
TIME TAKEN OFF
DATE TAKEN OFF
PRESSURE
START
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 A.M.
10 A.M.
11 A.M.
6 A.M.
5 A.M.
4 A.M.
7 A.M.
8 A.M.

Form Approved. OMB No. 2000-0042 Approval expires 5-30-86

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

EPA

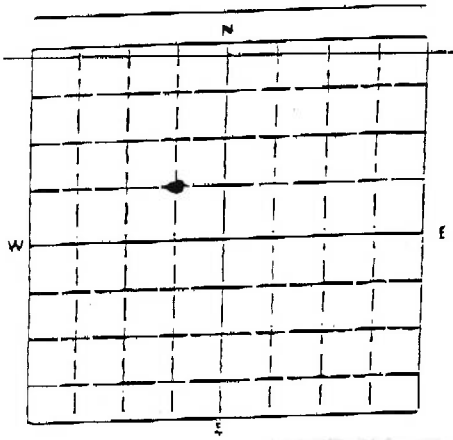
WELL REWORK RECORD

NAME AND ADDRESS OF PERMITTEE
WATTENBERG DISPOSAL LLC
1675 BROADWAY, STE. 2800
DENVER, CO. 80202

NAME AND ADDRESS OF CONTRACTOR
KAUFFMAN WELL SERVICE
10137 WCR 19
FT. LUPTON, CO. 80621

STATE: CO
COUNTY: WELD
PERMIT NUMBER: CO1516-02115

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT — 640 ACRES



SURFACE LOCATION DESCRIPTION
SE ¼ OF NW ¼ OF ¼ SECTION 10 TOWNSHIP 1 N RANGE 67 W

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location 500 ft. from (N/S) S Line of quarter section
and 2020 ft. from (E/W) W Line of quarter section

WELL ACTIVITY
☒ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage

Lease Name

Total Depth Before Rework: 9571'
Total Depth After Rework: 9571'
Date Rework Commenced: 1-10-03
Date Rework Completed: 1-16-03

TYPE OF PERMIT
☐ Individual
☐ Area
Number of Wells 1
Well Number: No. 1

WELL CASING RECORD — BEFORE REWORK

Casing Size	Casing Depth	Cement Sacks	Cement Type	Perforations From	Perforations To	Acid or Fracture Treatment Record
8 5/8"	759'	200	"G"			1000 GAL 7½ % HCL TREATMENT
						2000 GAL 15 % FE ACID, AUG 19, 2000
5½"	9557'	255	"G"	9276'	9418'	

WELL CASING RECORD — AFTER REWORK (Indicate Additions and Changes Only)

Casing Size	Casing Depth	Cement Sacks	Cement Type	Perforations From	Perforations To	Acid or Fracture Treatment Record

DESCRIBE REWORK OPERATIONS IN DETAIL
USE ADDITIONAL SHEETS IF NECESSARY

PULLED TUBING & PACKER, RECOVERED PRESSURE TOOLS, REPLACED FIBERLINED TUBING WITH UNLINED TUBING, RAN TUBING STRING, INSTALLED ANNULAR TREATED FLUID, SET PACKER AT 9016' KB. CONDUCT MIT.

WIRE LINE LOGS, LIST EACH TYPE

Log Types	Logged Intervals

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND OFFICIAL TITLE (Please type or print)
RICK OHLEMEIER
MANAGER, COMPLETIONS

SIGNATURE

DATE SIGNED: 1-17-03

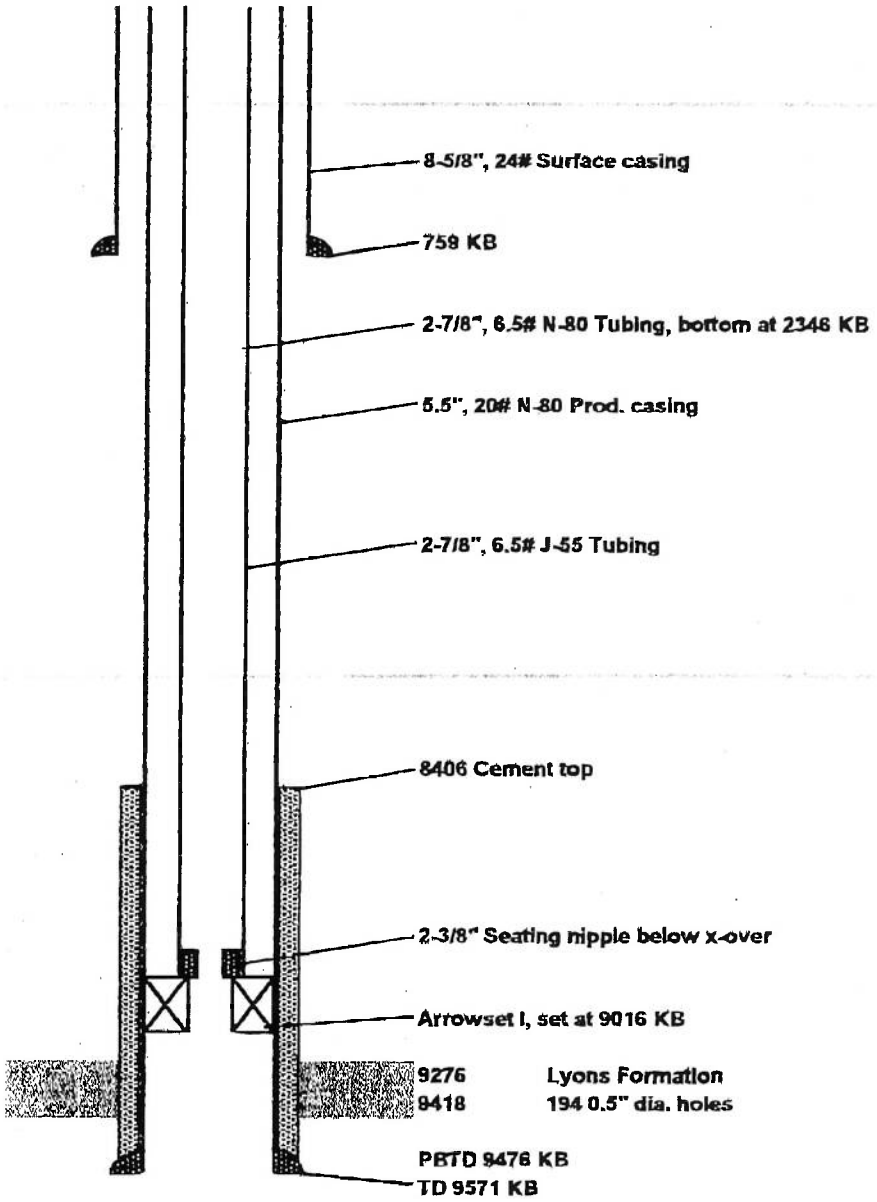
KPK
K.P. Kauffman Co., Inc.
Daily Workover or Completion Report

SUPERVISOR: Rick Ohlemeier

Well: Suckla Farms Injection Well #1	**Road Dir:** 19 at 10.5, 3/10E, N into		**DATE:** 1/17/03
L. Desc: senw 10 1n 67w	**County:** Weld, CO	**Line Locate:** n/a	
Formation: Lyons	**Perfs:** 9276-9418, 194 holes		
Casing: 5.5" 20# N-80	**TD:** 9571	**PBTD:** 9476	**KB Meas:** 10

Tubing Detail, 1/16/03:

Footage	No. jts.	
7.00	KB	Top of tubing 7' under 10' KB meas.
2339.03	74	Tbg 2-7/8" OD, EUE, 8rd, 6.5#, N-80, yellow banded
6659.21	213	Tbg 2-7/8" OD, EUE, 8rd, 6.5#, J-55
1.7	1	2-3/8"x2-7/8" x-over
1.1	1	Seating nipple, 2-3/8"
7.8	1	2-3/8"x5.5" Arrowset I packer, set in compression, elements at 9013' KB
9015.84		TOTAL, Set at 9016' KB



KPK
K.P. Kauffman Co., Inc.
Daily Workover or Completion Report

SUPERVISOR: Rick Ohlemeier					
Well: SUCKLA FARMS INJ. WELL #1			Road Dir: 19 at 10.5, .25E, N into		DATE:
L. Desc:	senw 10-1n-67w	County: WELD, CO		Line Locate: n/a	
Formation:	Lyons	Perfs: 9276-9418 194 holes			
Casing:	5.5" 20# N-80	TD: 9571	PBTD: 9476	KB Meas: 10	

1/10/03 History: Lightning Wireline placed pressure recording bombs at SN (9106') on 1/8/03. On 1/9/03, contracted engineer attempted to begin step-rate test, but pumps pressured-out to 1200 psi. Wireline operator unable to retrieve tools due to 10' of trash and sediment which had settled on tool overnight. MIRU rig late on 1/9/03. Today: RIH with turned-down swab cups (2.025" dia.), well swabbed down to 7000' in three hrs, recovered 40 bf. Wireline operator attempted to retrieve, but stacked on plug in tubing at 8345' (661' above SN). Scheduled Maverick Coil-Tubing unit for 1/11/03, 7:00 a.m.

1/11/03 MIRU Maverick Coil-Tubing Services. RIH with 1.25" jet nozzle on 1.25" tubing, circulate to and stack-out on obstruction at 8326'. Repeatedly set 3000 lbs on obstruction with no further progress. Circ. clean for 45 min. POH coil tbg. MIRU Lightning Wireline. Operator RIH with impression block and stacked on obstruction at 8340' (wireline meas.), POH. Impression block has no conclusive markings. Operator does not want to attempt running retrieving head. Release all svcs.

1/12/03 Crew thawed wellhead, ice and air problems w/ rig, NDWH. Release packer, swab tubing down to 6000'. POH tbg, Pulled wet tubing from jts #250 to 263. Laid down jt #263 containing wireline tool assembly and scale. POH and recover x-over, SN, and packer -- no tools in SN. Attempt to hammer-out tools from jt #263 w/no success. SWI at 3:30 pm. NFO.

1/13/03 KWS roustabouts cut wireline tools from jt #263. Prep to run tubing and packer, WO wind to die. Move in Lightning Wireline, RIH with sinker bar in open casing, tag casing fill at 9442' KB, 24' below bottom perf at 9418'. PBTD at 9476'. Casing fill found on 7/15/98 at 9453' KB. Release rig crew due to high winds at 1:30 pm.

1/14/03 Install new tubing head, RIH N-80 Fiberline tubing, POH and lay down. Estimate 80% of collars have fiberglass lining torn out. (Current ops to 3 pm)

1/15/03 Lay down remainder of fiberline tubing (48 jts). RU H-S Testing, pick up singles and RIH used, 2-7/8" J-55, 6.5# tubing and test to 7000 psi. 135 jts in by 3pm, SD due to high wind. NFO.

1/16/03 Tally, pick up, hydrotest, and run remaining J-55 tubing, move in N-80 tubing. Tally, pick up, hydrotest and run 74 jts 2-7/8" N-80. Reverse-circulate 140 bbl fresh water treated with 20 gal Halliburton Anhib II. Set packer, load and test annulus to 500 psi for 15 min. Good test. Release pressure. Hook up 2 pen recorder and conduct MIT pre-test to 950 psi. Release pressure. Drain pump and pressure lines at 5 pm, wait on third party witness (Andy Peterson) to arrive loc. At 5:55 pm, hook up lines and pump into annulus to 940 psi. Isolate annulus from pump, observe pressure chart from 6:01 pm to 6:31 pm, release annular pressure to zero, but chart remained at full pressure due to test line freeze. SWI. Drain all equip. Release crews. NFO.
Annulus will pass MIT, but pressure chart will not. Will re-test tomorrow.
New tubing detail: Top: 74 jts 2-7/8" OD, EUE, 8rd, 6.5#, N-80 yellow banded tubing--2339.03'. Next: 213 jts 2-7/8" OD, EUE, 8rd, 6.5# J-55 used tubing--6659.21'. Next: 2-7/8"x2-3/8" x-over--1.7'. Next: 2-3/8" pump seating nipple--1.1'. Next: 2-3/8"x5.5" Arrowset I packer--7.6'. Set 3' under 10' KB, packer is in 18 pts compression at 9011.84' KB.

1/17/03 MIT reconducted in the presence of Louis Gibson, Gibson Enterprises, from 9:55 am to 10:35 am. SWI. NFO.

FAX COVER SHEET

Date: 1-17-03

To: KEN PHILLIPS @ EPA

Fax # 303/312-6409

Message: SUCKLA FARMS INJ. WELL #1 MIT FORMS & REPORTS.
WE REQUEST APPROVAL FOR RESUMING INJECTION — IF POSSIBLE,
BEFORE THE END OF TODAY, FRI. 01-17-03. THANK YOU.

From: RICK OHLEMEIER, K.P. KAUFFMAN CO. 303/472-2753 (CELL)
303/833-3285 (FAX)

I am transmitting 6 pages including the cover sheet....

CO 2115

FAX COVER SHEET

Date: 3-17-03

To: AL CRAUER @ EPA

Fax # 303/312-6409

Message: MIT Aurora, WATTENBERG DISPOSAL, LLC.
SUCELLA FARMS INJ. WELL et/

From: RICK OHLENBUSCH, KP KAUFFMAN, CO. 303/472-2753

I am transmitting 6 pages including the cover sheet...

PLEASE FAX LETTER OF AUTHORIZATION TO
303/833-3285 THANKS, RO

Next MIT letter to?

CO10516-02115

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

Date: 3/17/03

EPA Witness: _____

Test conducted by: Rick Chlemeier, KP Kauffman Co., Inc. 303/422-2753

Others present: Robert Carter Halliburton Energy Services 308-606-4311

Well Name: Sullivan Farms Inj. Well #1 Type: ER (SWD) Status: AC TA UC

Field: Spindle

Location: SE NW Sec: 10 T 1 (N) S R 67 E (W) County: Weld State: CO

Operator: Wattenberg Disposal, LLC

Last MIT: 1-17-03 Maximum Allowable Pressure: 3200 PSIG

Is this a regularly scheduled test? [ ] Yes [X] No

Initial test for permit? [ ] Yes [X] No

Test after well rework? [X] Yes [ ] No

Well injecting during test? [ ] Yes [X] No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: Ø/Ø psig

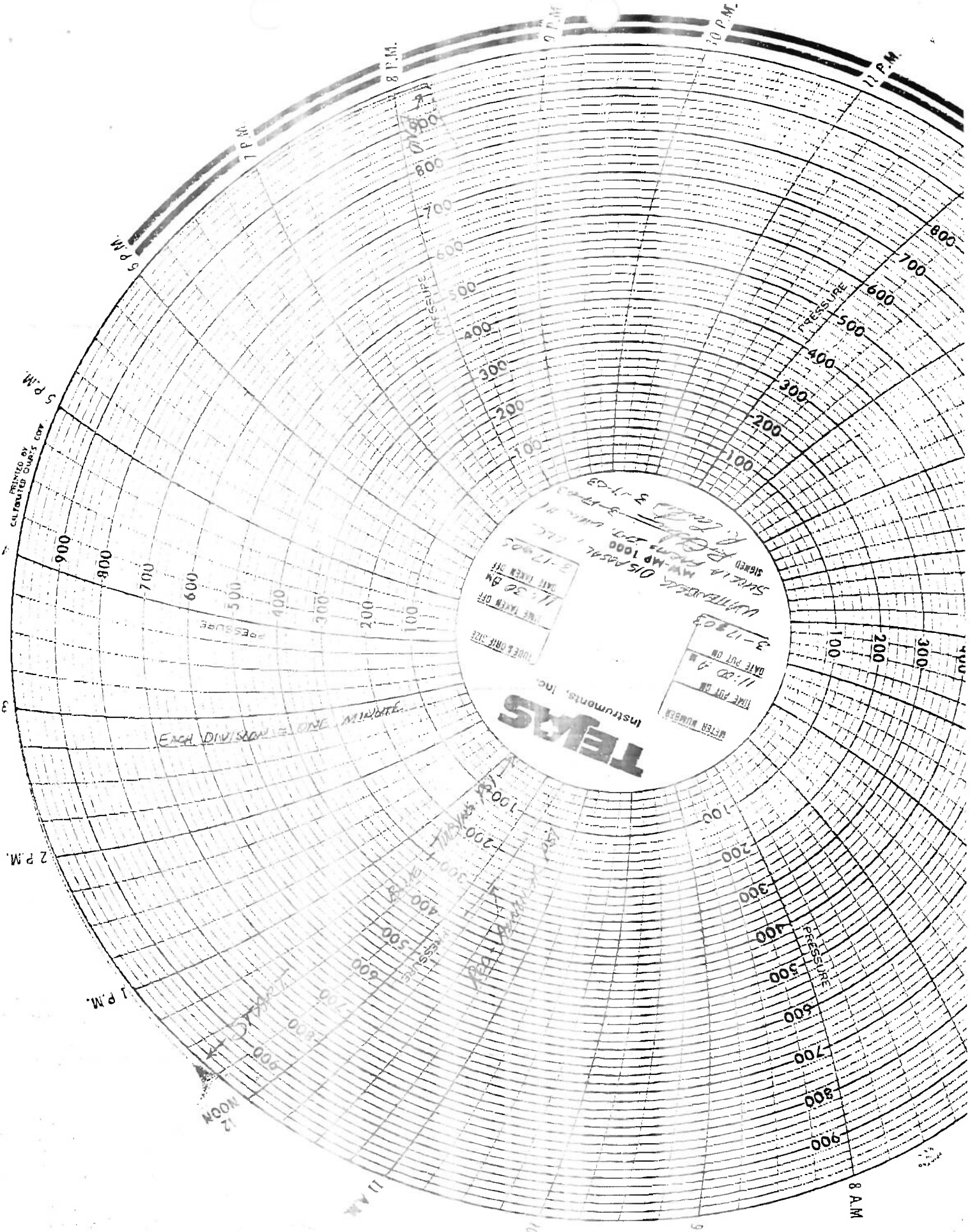
MIT DATA TABLE	Test #1		Test #2		Test #3	
TUBING	PRESSURE					
Initial Pressure	Ø	psig		psig		psig
End of test pressure	Ø	psig		psig		psig
CASING / TUBING	ANNULUS		PRESSURE			
0 minutes	1020	psig		psig		psig
5 minutes	1010	psig		psig		psig
10 minutes	1000	psig		psig		psig
15 minutes	1000	psig		psig		psig
20 minutes	990	psig		psig		psig
25 minutes	990	psig		psig		psig
30 minutes	980	psig		psig		psig
_____ minutes		psig		psig		psig
_____ minutes		psig		psig		psig
RESULT	[X] Pass	[ ] Fail	[ ] Pass	[ ] Fail	[ ] Pass	[ ] Fail

Does the annulus pressure build back up after the test? [ ] Yes [ ] No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Rick Chlemeier 3/17/03 Robert Carter 3/17/03


TEXAS
Instruments, Inc.
METER NUMBER
TIME PUT ON
DATE PUT ON
TIME TAKEN OFF
DATE TAKEN OFF
PRESSURE
EACH DIVISION = ONE MINUTE
PRINTED BY CALCULATED DATA'S CORP.
12 NOON
1 P.M.
2 P.M.
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7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.

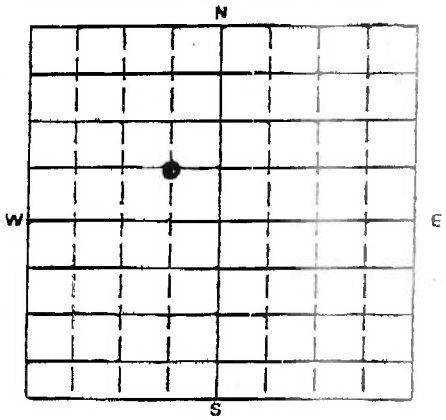
EPA

WELL REWORK RECORD

NAME AND ADDRESS OF PERMITTEE
WAITENBERG DISPOSAL, LLC
1675 BROADWAY, STE. 2800
DENVER, CO. 80202

NAME AND ADDRESS OF CONTRACTOR
KAUFFMAN WELL SERVICE
10137 WCR 19
FT. LUPTON, CO. 80621

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT — 640 ACRES



STATE	COUNTY	PERMIT NUMBER
CO	WELD	CO1516-02115

SURFACE LOCATION DESCRIPTION
SE ¼ OF NW ¼ OF ¼ SECTION 10 TOWNSHIP 1N RANGE 67W

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location 500 ft. from (N/S) S Line of quarter section
and 2020 ft. from (E/W) W Line of quarter section

WELL ACTIVITY
☒ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage

Lease Name

Total Depth Before Rework	Total Depth After Rework	Date Rework Commenced	Date Rework Completed
9571 FT.	9571 FT.	3-5-03	3-15-03

TYPE OF PERMIT
☐ Individual
☐ Area
Number of Wells 1

Well Number #1

WELL CASING RECORD — BEFORE REWORK

Casing Size	Casing Depth	Cement Sacks	Cement Type	Perforations From	Perforations To	Acid or Fracture Treatment Record
8 5/8"	759'	200	"G"	759'	SURFACE	INITIAL 1000 GAL 7½% HCL TREATMENT
5½"	9571'	255	"G"	9571'	8406'	2000 GAL 15% FE ACID, 8-19-2000

WELL CASING RECORD — AFTER REWORK *(Indicate Additions and Changes Only)*

Casing Size	Casing Depth	Cement Sacks	Cement Type	Perforations From	Perforations To	Acid or Fracture Treatment Record
5½"	9571'	75	STANDARD	5264'	5150'	SQUEEZED COLLAR LEAK

DESCRIBE REWORK OPERATIONS IN DETAIL USE ADDITIONAL SHEETS IF NECESSARY	WIRE LINE LOGS, LIST EACH TYPE: Log Types	Logged Intervals
SEE ADDITIONAL REPORTS	CBL, GR, CCL 3/13/03	5552' TO 5000'

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND OFFICIAL TITLE *(Please type or print)*	SIGNATURE	DATE SIGNED
RICK OHLEMEIER COMPLETION MANAGER	Rick Ohlemeier	3-17-03

KPK
K.P. Kauffman Co., Inc.
Daily Workover or Completion Report

SUPERVISOR: Rick Ohlemeier
Well: SUCKLA FARMS INJ. WELL #1 — Road Dir: 19 at 10.5, .25E, N into — **DATE:** see below
L. Desc: senw 10-1n-67w — County: WELD, CO — Line Locate: n/a
Formation: Lyons — Perfs: 9276-9418 194 holes
Casing: 5.5" 20# N-80 — TD: 9571 — PBTD: 9476 — KB Meas: 10

3/4/03 MI and park rig near loc. NFO at 2:30 pm. WO equip. gathering.

3/5/03 MIRU. MI KWS front end loader. Took delivery of 98 2-7/8" Fiberline tubing joints from ICO-Permian and unloaded on sills. Discontinue disposal injection, bled off pressure tubing and annulus, recovered 6 bo off annulus and have clean packer fluid below. NDWH, release packer, POH and stand back tubing. Pulled packer through tight spot w/61 jts out, depth of tight spot is calculated to be approx. 7088'. Continue pulling.
(Current ops to 3 pm)

3/6/03 After 3 pm, 3/5: Pull total of 168 jts, SWI, NFO. Today: POH remaining tubing and packer. RIH w/5.5" casing scraper, bumper-sub, x-overs, 10 jts 2-3/8" tubing and 290 jts 2-7/8" tubing. Total string tally = 9432.14', ran to 9437' KB, (perfs from 9276 to 9418). POH and stand back tubing.
(Current ops to 3 pm)

3/7/03 After 3 pm, 3/6: Recover all tools, SWI, NFO. Today: RIH w/redressed Arrowset I packer on 271 jts 2-7/8", hydrotesting packer and tubing to 6000 psi. Set at 8506' (cement top at 8406'), load and test annulus, pumped 10 bf at 3/4 bpm at 500 psi. during repeated testing. Release packer, pull and reset on 129 jts at 4041', annular test held 500 psi for 10 min. Release pkr, run and reset on 195 jts at 6105', annular test failed, pumping into at 3/4 bpm at 500 psi. SWI. NFO at 5:30 pm.

3/8/03 (During workover, Aug. of 2000, casing tight spot was reamed open w/tapered mill at 4925'.) Pulled and set packer at 4854'.
Cont. testing: (Testing done at 500 psi.)

Depth	Annular test	
4854'	Good	
4979'	Good	(Reamed area tested good)
5042'	Good	
5542'	Fail	
5291'	Fail	
5167'	Good	
5229'	Good	
5261'	Good	Leak top interval below 5261'

POH tubing and pkr. RIH w/5.5" retrievable bridge plug (RBP) to 6200' and leave hanging for night. SWI.

3/9/03 RIH w/RBP. Set on 275 jts at 8630', (224' below cement top at 8406'). Pump and spot 2 sks sand on plug. POH tubing and retrieving head. RIH w/redressed 5.5" Arrowset I packer and set on 169 jts at 5292'. Test down tubing to 500 psi - good test. Pull and reset packer on 159 jts at 4979'. Test annulus to 500 psi, good test. Pump down tubing, establish rate of 1 bpm at 550 psi. for 10 min. No strong blow, no circulation out surf. csg. SD pump, release all pressure, SWI. Release crew at 3 pm.

3/10/03 Excavate circ. pit on loc. MI Halliburton for cement squeeze, establish pump rate through leak at 1.5 bpm and observe pressure increase to 1600 psi. Mix and pump 75 sks standard cement containing 3% kcl, .2% CFR-3, and .2% Halad-344. Density 15.6 lbs/gal, yield 1.18 cuft/sk. Displace cement with 30.5 bbl fresh water and squeeze to 2000 psi over next 1.5 hrs. Release packer and pull to 1100'. Reset packer and pressure tubing to 500 psi. SWI. Prep drilling equip. Release crew at 2 pm.

3/11/03 450 psi remains on tubing this morning. Release pressure, release packer, POH tubing and packer. RIH 4-3/4" 4-pronged blade bit, sub and tubing. Tag tight spot at 4925' with 157 jts. RU power swivel, reverse-circulate and rotate 20 min. w/no progress. RD swivel, POH tubing and tools. Took 4-3/4" 3-pronged blade bit to J&M Machine to be turned down to 4-5/8". Drain equip.

3/12/03 RIH with 4-5/8" 3-pronged blade bit, sub and tubing, tag cement with 161 jts + 5' next, at 5038'. RU power swivel, drill medium to hard cement to 169 jts, at 5278'. Run to 5310' and rev-circ clean. RD power swivel. Pack-off wellhead and test casing to 1000 psi for 30 min. Lost 80 psi by end of test. Release pressure, drain circ. equip. SWI. NFO.

KPK
K.P. Kauffman Co., Inc.
Daily Workover or Completion Report

SUPERVISOR: Rick Ohlemeier
Well: SUCKLA FARMS INJ. WELL #1 | Road Dir: 19 at 10.5, .25E, N into | **DATE:** see below
L Desc: senw 10-1n-67w | County: WELD, CO | Line Locate: n/a
Formation: Lyons | Perfs: 9276-9418 194 holes
Casing: 5.5" 20# N-80 | TD: 9571 | PBTD: 9476 | KB Meas: 10

3/13/03 POH bit and tubing. MIRU ADI Wireline. Run GR, CBL per EPA specs across squeeze area. Good 85% bonding from collar leak at 5264' up-hole to 5198', with cement top at 5154'. Release ADI. RIH with RBP retrieving head, tag sand fill above RBP at 8618', reverse-circulate clean to plug, latch onto and retrieve, begin POH and laying down unlined 2-7/8" tubing. (Current ops to 3 pm.)

3/14/03 Finish POH, laying down tubing, recover RBP and retrieving head. SWI, NFO at 11 am. WO ICO Permian technician to arrive Sat. Will run fiberline tubing then.

3/15/03 Move in ICO Permian technicians. PICK up, tally, and redress each Fiberline tubing collar with new high temperature mastick. RIH Arrowset I (nickle-plated ID) packer, stainless steel profile nipple, and tubing. Torque each connection to 2750 ft lbs. Reverse-circulate 150 bbl fresh water treated with 20 gal. Halliburton AnHib II. Set packer and test casing to 500 psi. Packer is set and holding, but wellhead pack-off rubber leaking. Release pressure. SWI. NFO at 6:45 pm.
Tubing detail: Bottom: 7.20' – 2-3/8"X5.5" Arrowset I nickle-plated packer. Next: 0.80' – 2-7/8"X2-3/8" profile nipple, stainless steel. Next: 9021.99' – 284 jts 2-7/8" OD, EUE, 8rd, 6.5# N-80 Fiberglass-lined tubing. Packer set with 8 pts tension at 9040' KB.

3/16/03 No ops.

3/17/03 Replaced wellhead pack-off rubber and pre-tested annulus to 1000 psi. Released pressure. Install two pen recorder, conduct mechanical integrity test to 1020 psi for 30 minutes. Pressure dropped to 980 psi by end of test. Robert Carter, Halliburton Services, witnessed the test.
RDMO Rig #2.

CO2115

Mechanical Integrity Test
Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

Date: 3/17/03

EPA Witness: _____

Test conducted by: Rick Chlemeier, KP Kauffman Co, Inc. 303/472-2753

Others present: Robert Carter Halliburton Energy Services 303-606-4311

Well Name: Sicilia Farms Inj. Well #1 Type: ER (SWD) Status: AC TA UC

Field: Spindle

Location: SE NW Sec: 10 T 1 (N)/S R 67 E/(W) County: Weld State: CO

Operator: Wattenberg Disposal, LLC

Last MIT: 1-17-03 Maximum Allowable Pressure: 3700 PSIG

Is this a regularly scheduled test? [ ] Yes [X] No

Initial test for permit? [ ] Yes [X] No

Test after well rework? [X] Yes [ ] No

Well injecting during test? [ ] Yes [X] No If Yes, rate: _____ bpd

U2 Entered
Date 4/23/03
Initial [illegible]

Pre-test casing/tubing annulus pressure: Ø/Ø psig

MIT DATA TABLE	Test #1		Test #2		Test #3	
TUBING	PRESSURE					
Initial Pressure	Ø	psig		psig		psig
End of test pressure	Ø	psig		psig		psig
CASING / TUBING	ANNULUS		PRESSURE			
0 minutes	1020	psig		psig		psig
5 minutes	1010	psig		psig		psig
10 minutes	1000	psig		psig		psig
15 minutes	1000	psig		psig		psig
20 minutes	990	psig		psig		psig
25 minutes	990	psig		psig		psig
30 minutes	980	psig		psig		psig
_____ minutes		psig		psig		psig
_____ minutes		psig		psig		psig
RESULT	[X] Pass	[ ]Fail	[ ] Pass	[ ]Fail	[ ] Pass	[ ]Fail

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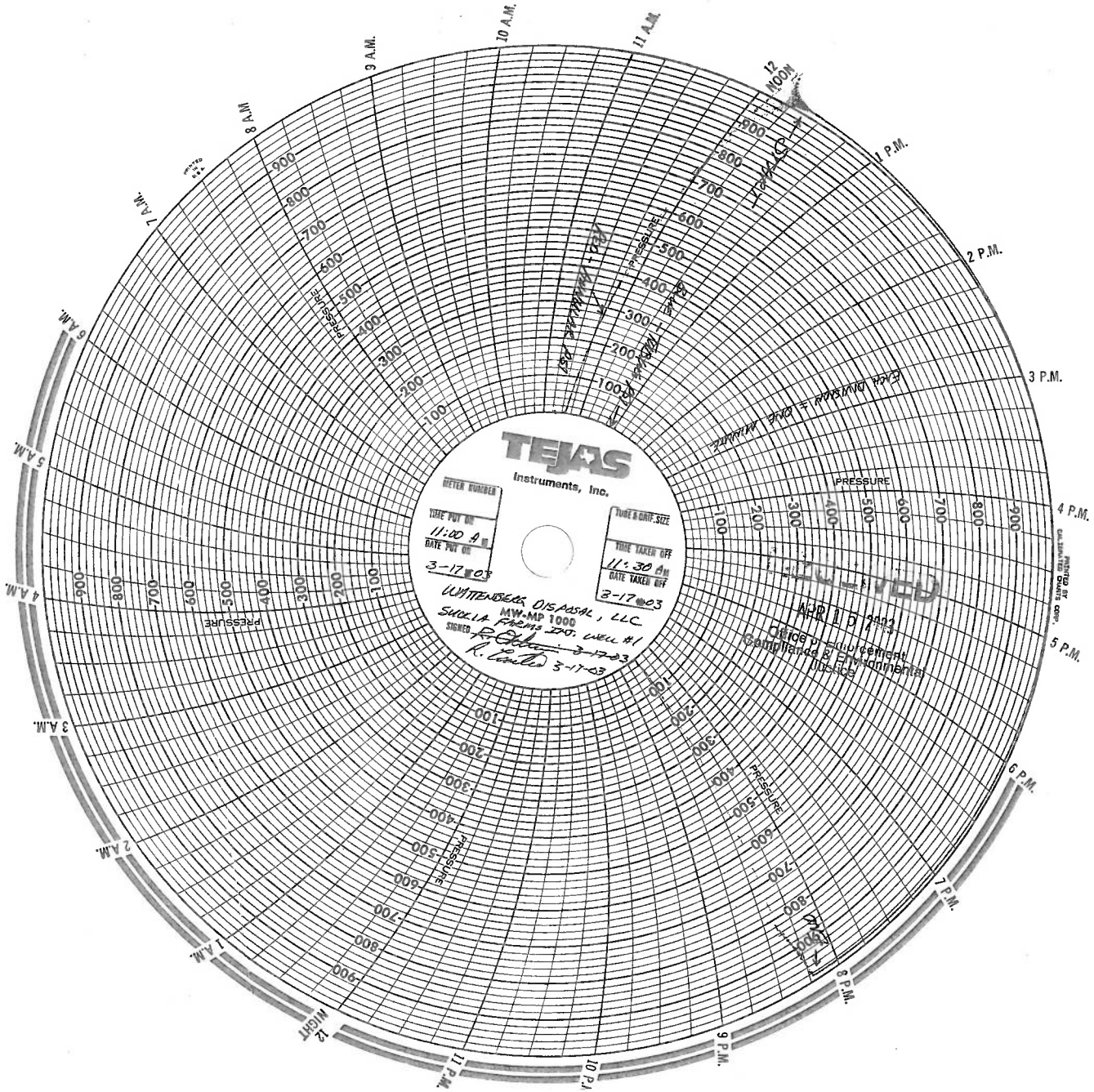
GREEN TAB 3

Does the annulus pressure build back up after the test ? [ ] Yes [X] No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Rick Chlemeier 3/17/03 Robert Carter 3/17/03



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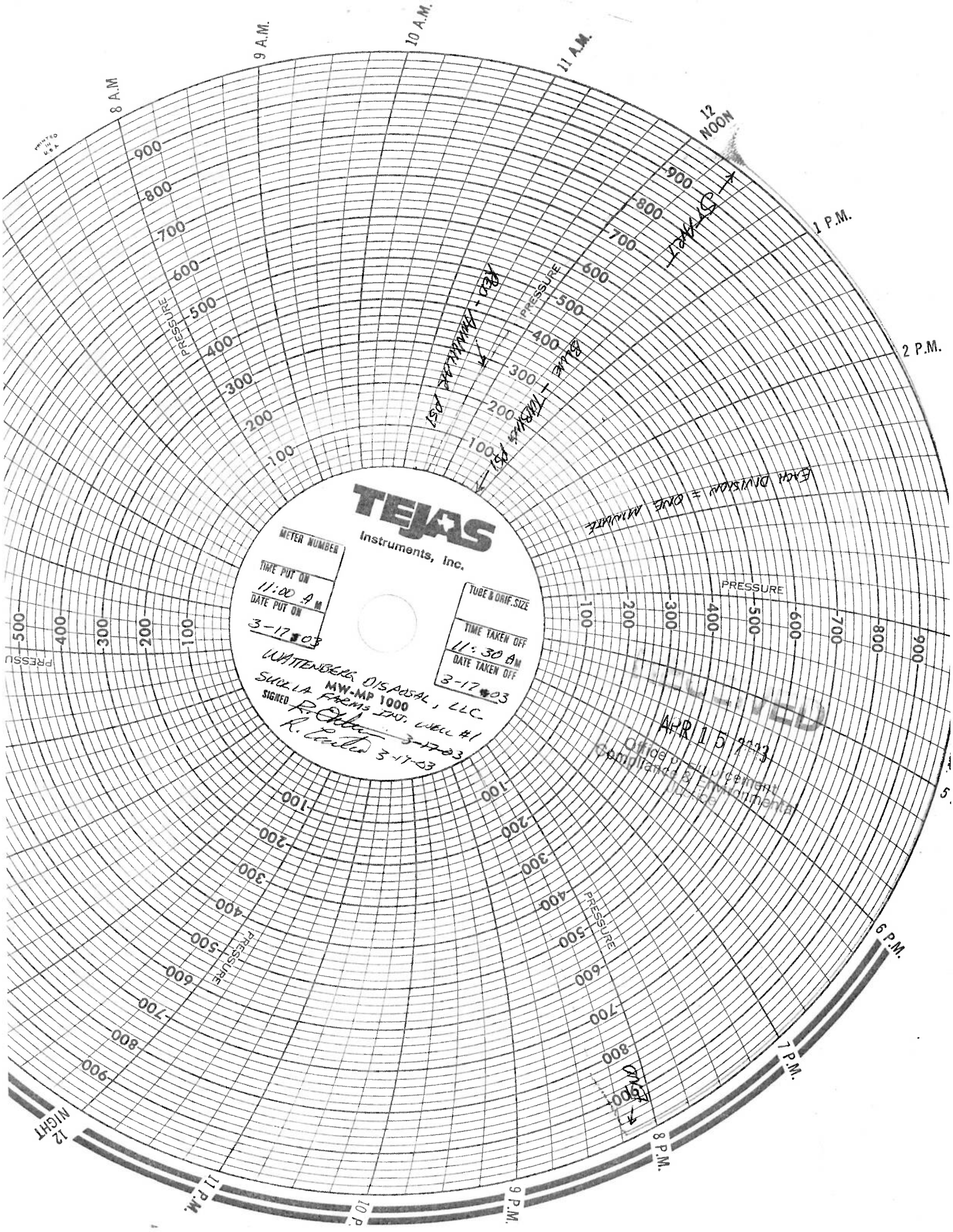
Office of Environmental Compliance & Environmental Justice


8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
PRESSURE
TEJAS
Instruments, Inc.
METER NUMBER
TIME PUT ON
11:00 AM
DATE PUT ON
3-17-03
TUBE & ORIF. SIZE
TIME TAKEN OFF
11:30 AM
DATE TAKEN OFF
3-17-03
WITTENBERG DISPOSAL, LLC
MW-MP 1000
SIGNED
3-17-03
3-17-03
Each Division = One Minute
Blue = Tubing psi
Red = Annular psi
Green = Static
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Office of Pollution Control
Compliance & Enforcement
Division of Environmental Protection

CO2115

TAB	GREEN	BLUE	CBI
		3	

Wattenberg Disposal, LLC
10137 Weld County Road 19
Ft. Lupton, CO 80621

U2 Entered
Date 4/23/2003
Initial KAP

Suckla Farms Injection Well #1

Section 10-T1N-R67W
Weld County, Colorado

EPA Permit No. CO1516-02115

Pressure Falloff Test
February 3, 2003 to February 10, 2003

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Compliance & Environmental
Justice
APR 15 2003

Report Prepared By:
Peterson Energy Management, Inc.

1) Company Name & Address

Wattenberg Disposal, LLC
10137 Weld County Road 19
Ft. Lupton, CO 80621

2) Test Well Name & Location

Suckla Farms Injection Well #1
NW/4 Section 10-T1N-R67W
Weld County, Colorado

3) Facility Contact Person

Kent Gilbert 303-825-4822

Report Prepared by:
Andy Peterson 970-669-7411
Peterson Energy Management, Inc.
1805 Morning Drive, Loveland CO 80538

4) Openhole Log

See attached Dual Induction Log run 07/02/89
Lyons Sandstone injection zone

5) Well Schematic

See attached well schematic diagram

Wellbore radius: 0.328'
Completed interval depths: Lyons injection perforations 9276'-9418'
Type of completion: cased & cemented, injection via fiber-lined tubing

6) Date of Fill Depth

Current fill depth is 9445' WLM, 27' below existing perforations, tagged w/ slickline on Jan. 8, 2003

7) Offset well information

The nearest well completed in the Lyons formation is the Wattenberg SWD #1, NWSW Section 19-2N-66W, operated by Kerr-Mcgee RMC. This well is approximately 4 ½ miles to the north-east. No interference between these two wells is assumed to occur for purposes of this analysis.

8) Chronological Listing of Daily Testing Activities

Well had been injecting water intermittently for the past year.

02/01/03	12:00	Intermittent daylight injection stopped
02/03/03	15:21	Tandem gauges installed at 9005' WLM
02/04/03	09:34	Injection began at 74 BWPH
02/05/03	09:34	Injection stopped, 1789 BW injected
02/10/03	08:06	Gauges off bottom

9) Electronic Submission of Raw Data

Attached floppy disk contains two zip files of raw time-pressure-temperature data.

10) Tabular Summary of Injection Rates

Tabular summary of injection rates for the month preceding the falloff test is attached. This information is also included in a file on the attached floppy disk. A rate vs. time plot for the previous month is also attached.

11) Offset Well Rate Information

As discussed above, no offset well rate information is considered to be useful in this test analysis.

12) Hard Copy of Time and Pressure Data

A tabular summary (filtered to every 28th point) of time, pressure & temperature data is attached.

13) Pressure Gauge Information

Top Gauge: 5000 psi Well Watchers HT electronic memory gauge SN5077, installed at 9004.5' WLM.
Accuracy 0.05%, resolution 0.0003% of full scale.
Last calibration 9/24/01, max error 1.64 psi.

Bottom Gauge: 5000 psi Well Watchers HT electronic memory gauge SN5099, installed at 9005.0' WLM.
Accuracy 0.05%, resolution 0.0003% of full scale.
Last calibration 9/24/01, maximum error 1.70 psi.

Calibration certificates for both gauges are attached.

Gauges supplied by Lightning Wireline 970-785-2670

14) General Test Information

Date of test: Injection commenced February 4, 2003, ceased February 5, 2003. Bottom hole pressure monitored from February 3, 2003 to February 10, 2003.

Time synchronization: see attached data files

Location of shut-in valve: well was shut in at the wellhead

15) Reservoir Parameters

Water viscosity: 0.239 cp (correlation)
Porosity: 6% Density Log porosity (measured)
Total Compressibility: 9.36e-06 (correlation)
Formation Volume Factor: 1.055 (correlation)

Initial Formation Reservoir Pressure: We have no radial flow straight line from which to extrapolate, but it appears that the stabilized reservoir pressure is approximately 3500 psi. This is essentially unchanged since the falloff test run in November, 1997. Stabilized injection pressure is approximately 4200 psi, 60 psi above the last injection pressure noted on this test.

Date Reservoir Pressure was last stabilized: Stabilization likely occurred in January, 2003, approximately 350 hours before this falloff test. The well was shut-in in January for approximately 320 hours while the tubing string was replaced. The attached plot of Injection Rate vs. Time shows the sequence of events.

Justified Interval Thickness: Tracer survey run 7/12/93 & temperature logs run 11/01/01 indicate entire 142' perforated interval is taking fluid. Wireline tag 1/8/03 shows all perforations open.

16) Waste Plume

Cumulative injection volume into completed interval: 3,966,723 bbls
This volume was arrived at by using injection volumes supplied by the Colorado Oil & Gas Conservation Commission through December, 1997, and injection volumes supplied by the operator from January, 1998, through January, 2003.

Calculated radial distance to the waste front: no waste front calculations have been made as radial flow was not reached and there is no contrast between waste plume viscosity and formation fluid viscosity

Average historical waste fluid viscosity: Although no direct viscosity measurements have been taken, waste plume viscosity is assumed to be the same as formation fluid viscosity. Essentially all of the waste injected into the Suckla Farms #1 has been oilfield brine.

17) Injection Period

Time: 9:34 AM 2/4/2003 to 9:34 AM 2/5/03, 1789 bbls

Type fluid: oilfield brine

Pump Type: Water plant injection pump

Rate Meter: Halliburton digital turbine meter. SWD tanks were strapped before & after to confirm volume.

Final injection pressure, surface: 400 psi @ plant, 360 psi @ wellhead
Final injection pressure, bottomhole: 4141.71 psig @ 42.9853 hrs.

Final Injection Temperature, bottomhole: 131.11° F

18) Falloff Period

Total shut-in time: 9:34 AM 2/5/03 to 8:06 AM 2/10/03, 118 hours

Final shut-in pressure & temperature: 3722.41 psig, 241.53° F.

Time well went on vacuum: approximately 12:45 PM 2/05/03 (surface pressure recorder was installed but froze up)

19) Pressure Gradient

A static gradient was not run

20-21) Calculated Test Data and Corresponding Graphs

Please see attached graphs of the falloff test.

The Cartesian plot shows bottomhole injection pressure had not stabilized after the 24 hour injection period. No pressure anomalies due to gauge temperature de-stabilization are evident during the test. Data quality appears good. Pressure change during later test times are 0.01-0.03 psi per time step (1 minute). Gauge resolution (0.015 psi) is adequate for the observed pressure change.

The Derivative plot shows that radial flow was not reached during the falloff test period, which is confirmed by the lack of a straight-line region on the Radial plot. A combination of linear flow regimes appears to dominate flow on the Derivative plot. This is confirmed by the straight-line relationship observed on the Linear and Bi-linear plots. No permeability or skin factor calculations were performed due to not reaching radial flow.

Although the concept is not theoretically valid since radial flow was not established, by using a permeability of 4.76 md from the November, 2001, pressure falloff test (which did appear to reach radial flow), we can calculate a radius of investigation of 2100' for this falloff test. Both the Derivative and Linear plots appear to be breaking off their straight-line trends during their respective late time regions, which may indicate that the effect of fractures in the near-wellbore region is diminishing as the radius of investigation increases. As test time increases, it is possible that radial flow may be observed, although we have no estimate at this time of the injection or shut-in times that would be required.

Natural fracturing is not unexpected in the Lyons Sandstone injection interval. The openhole log shows only 6% porosity, and without additional fracture porosity it is unlikely that this zone would accept fluid at the observed rates.

Linear flow normally results from either a highly conductive hydraulic fracture, channel flow or parallel faults. This analysis suggests instead that the early Bi-Linear and later Linear flow profiles imply a complex naturally fractured environment, rather than any of the traditional flow regimes. We know this zone was not ever hydraulically fractured, and the depositional environment of the Lyons is aeolian beach-front rather than fluvial channel structure. Parallel faults are a possibility, but a more realistic interpretation of this test is that the linear relationships reflect a complex naturally fractured reservoir.

Due to the variable rate conditions reported prior to this test, the plots in this report use a superposition time function. Plots were generated using the F.A.S.T. WellTest v4.000 software package available from Fekete Associates, Inc.

Equation:
$r = \sqrt{(k\,t / 948\ \Phi\ \mu\ ct)}$

22) Comparison with Petition Demonstration

Condition #5 on Page 6 in Permit # CO1516-02115 stipulates an upper limit of 8,300,000 barrels of injected waste. This corresponds with a waste front of 1,320', assuming piston displacement. The current volume of 3,966,723 barrels injected corresponds to a waste front of 912'. The additional fracture porosity postulated in this and previous reports makes the 912' a conservative estimate of the radial front of the waste plume. If fractures exist, which we feel this report conclusively demonstrates, then the reservoir must contain additional storage in the fracture system, in addition to the 6% matrix porosity. This will have the effect of increasing the effective porosity, which decreases the distance to the waste front for any given injection volume.

Equation:
$r = \sqrt{(5.615\ V / (\pi\ h\ \Phi))}$

where V = 3,966,723 bbls, h = 142', Φ = 0.06

23) Radioactive Tracer Survey

A radioactive tracer was not run during this test. The last radioactive tracer survey run in the Suckla Farms #1 was done in July, 1993.

24) Unusual Permit Approval Conditions

We are not aware of any unusual permit approval conditions.

Report prepared for Wattenberg Disposal, LLC. by

PETERSON ENERGY MANAGEMENT, INC

Andrew S. Peterson, P.E.

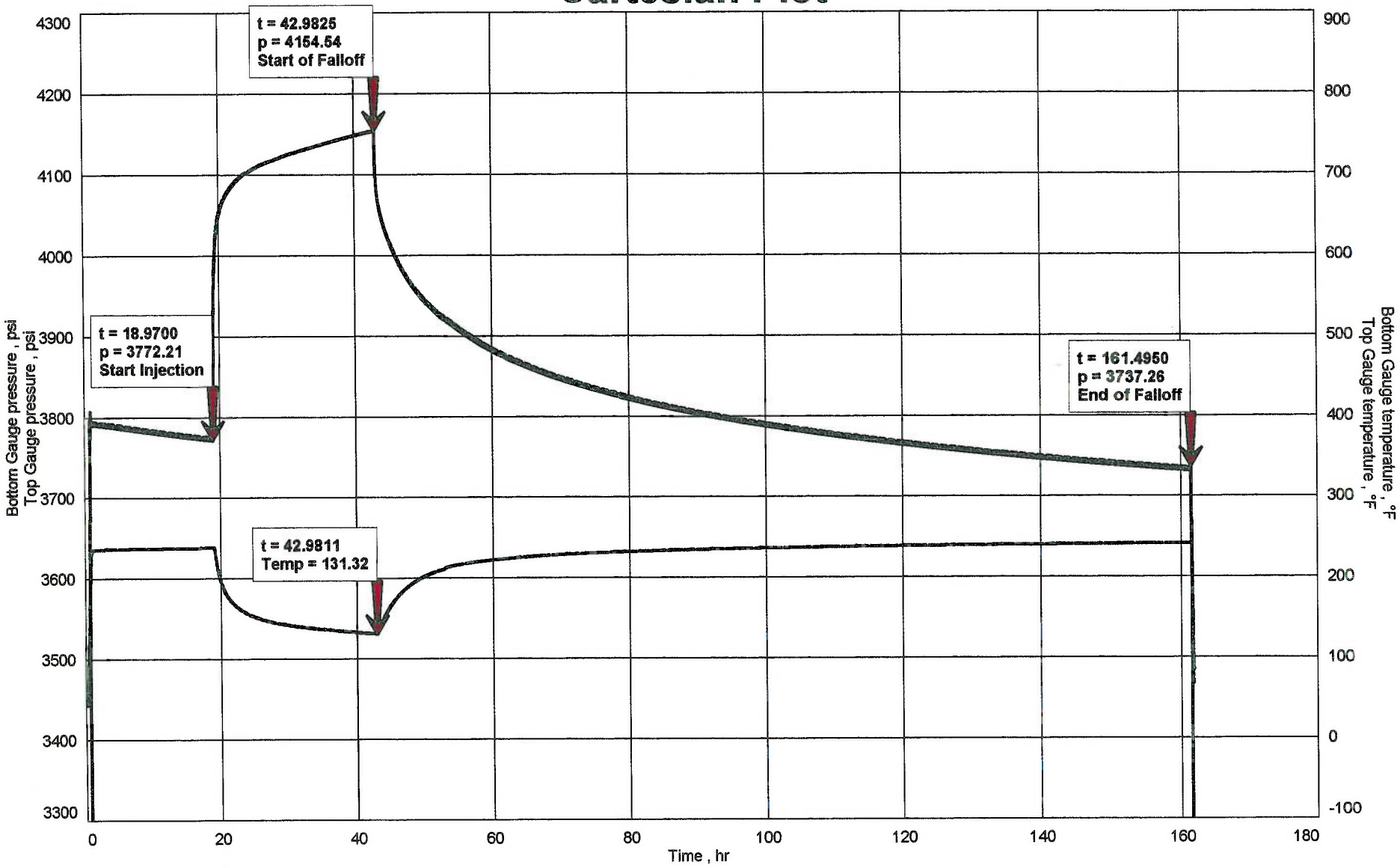
April 12, 2003

Reference: EPA Region 6 UIC Pressure Falloff Testing Guideline, Third Revision, August 8, 2002

Nattenberg Disposal, LLC
EPA Permit # CO1516-02115
Start Test Date: 2003/02/03
Final Test Date: 2003/02/10

Suckla Farms Inj. Well #1
Formation: Lyons Sandstone

Cartesian Plot

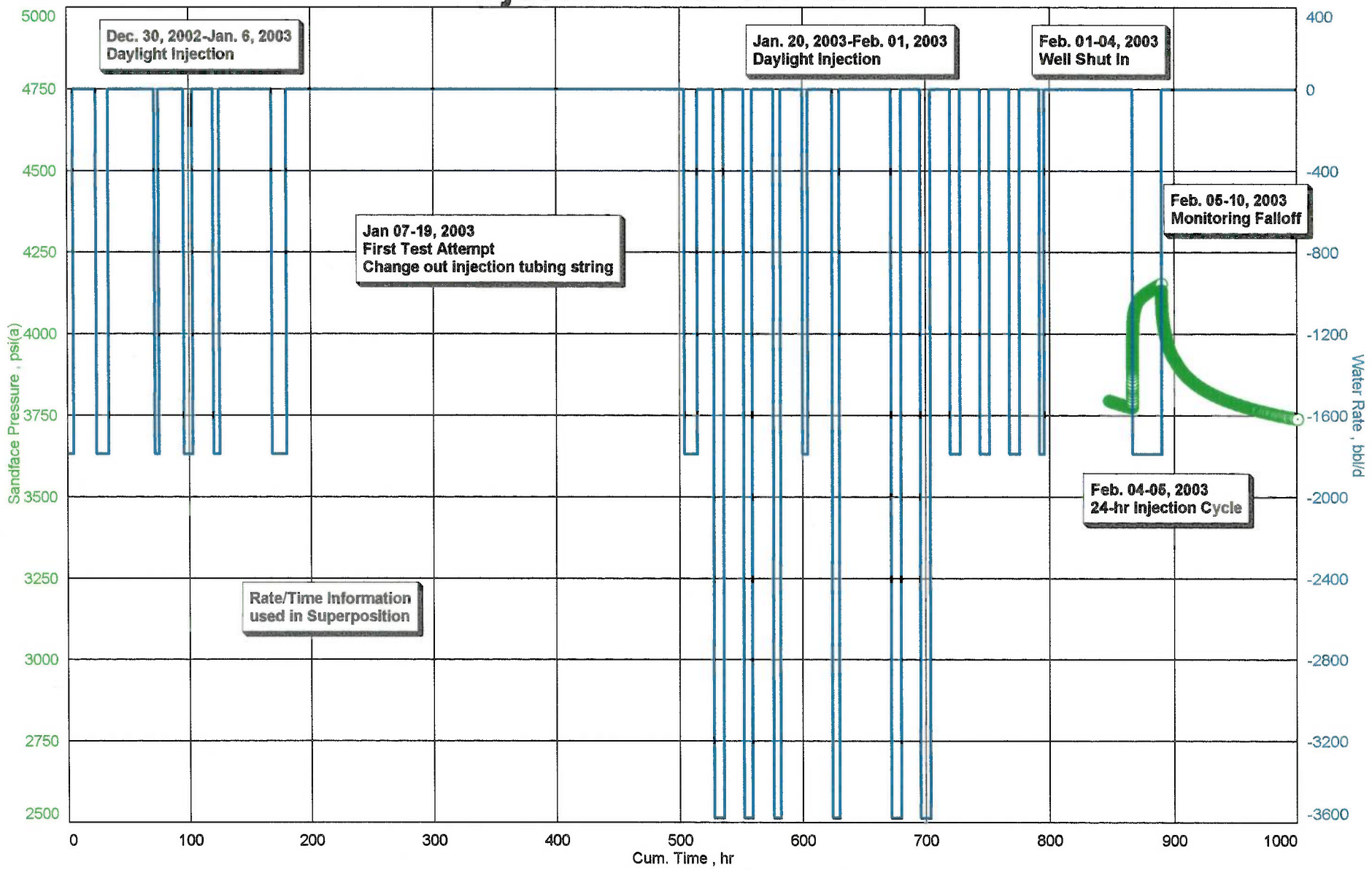


Documents\KP Kauffman\2003 Falloff Test\Kp10-1b.FKT 13-Apr-03 Ver 2.348

Fast

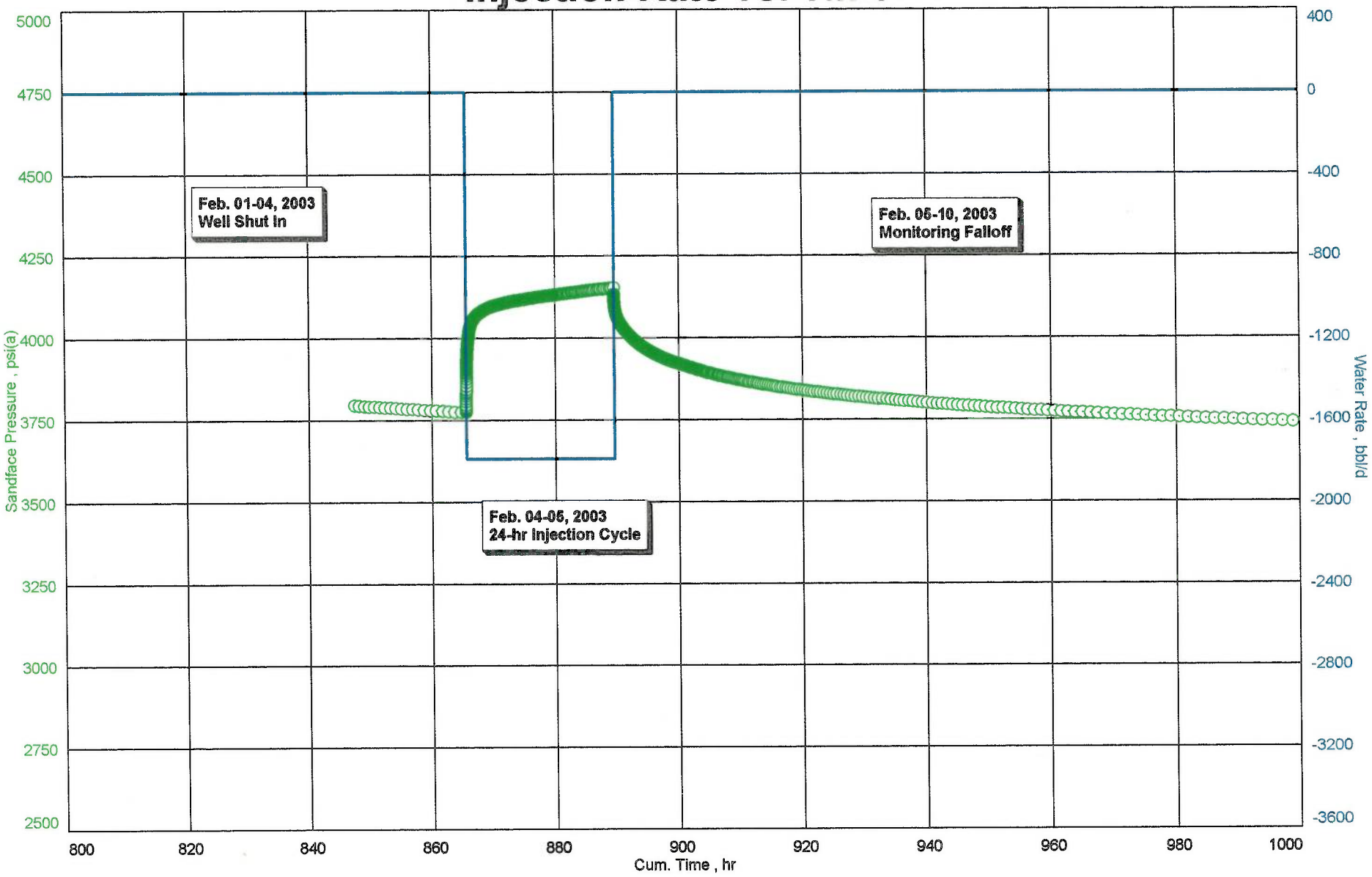
Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Injection Rate vs. Time



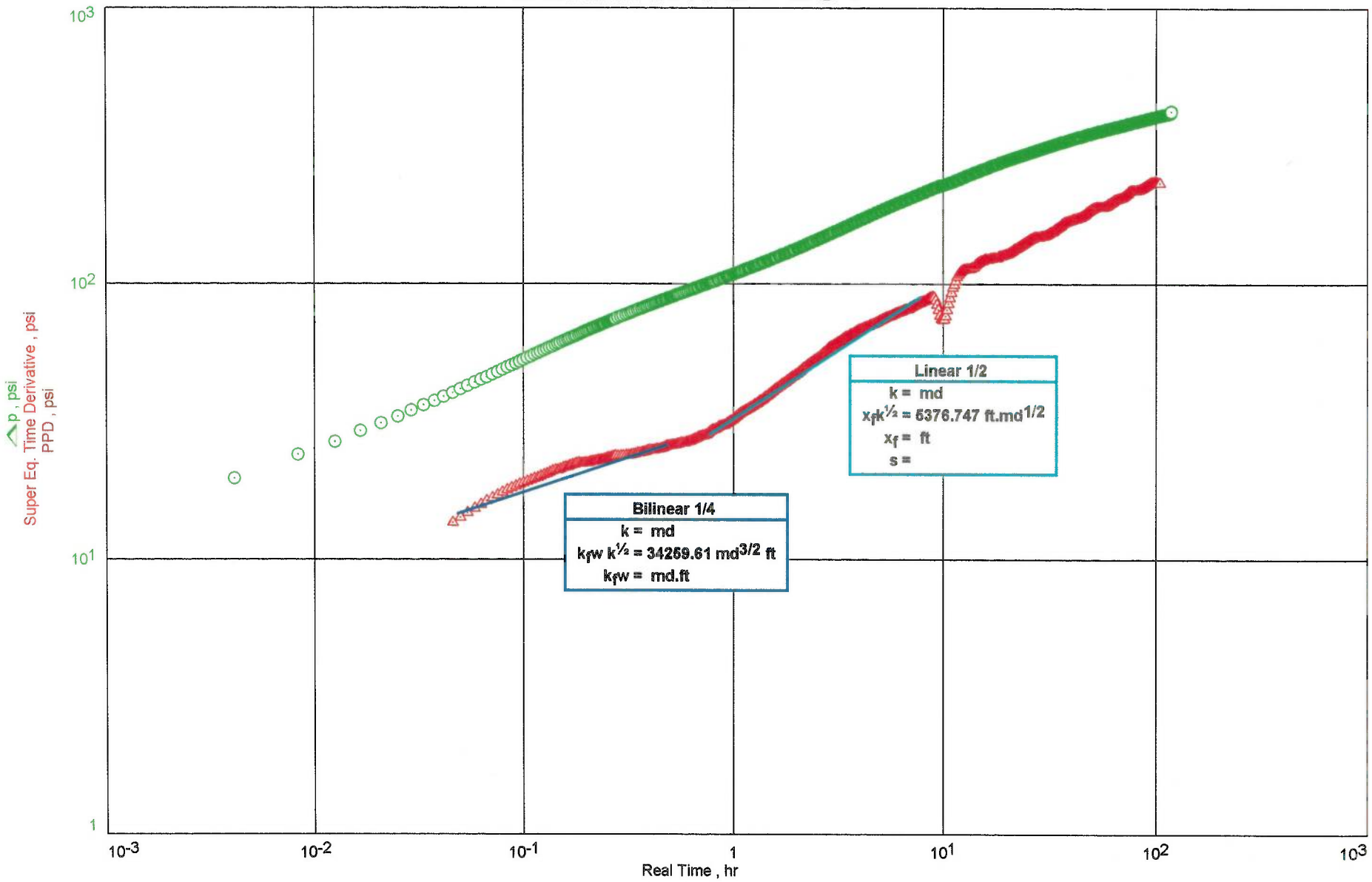
Buckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Injection Rate vs. Time



Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

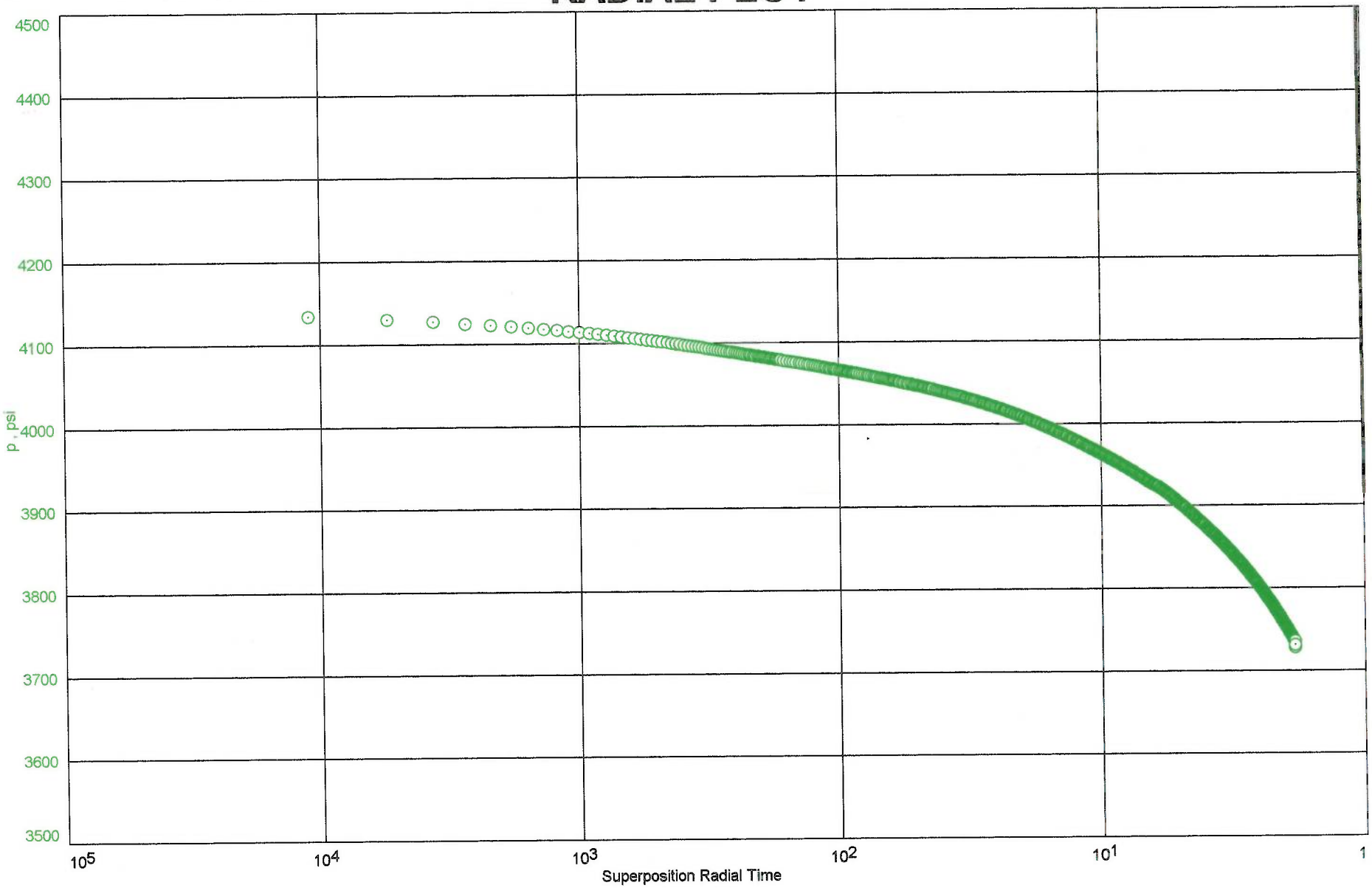
DERIVATIVE PLOT



Fast

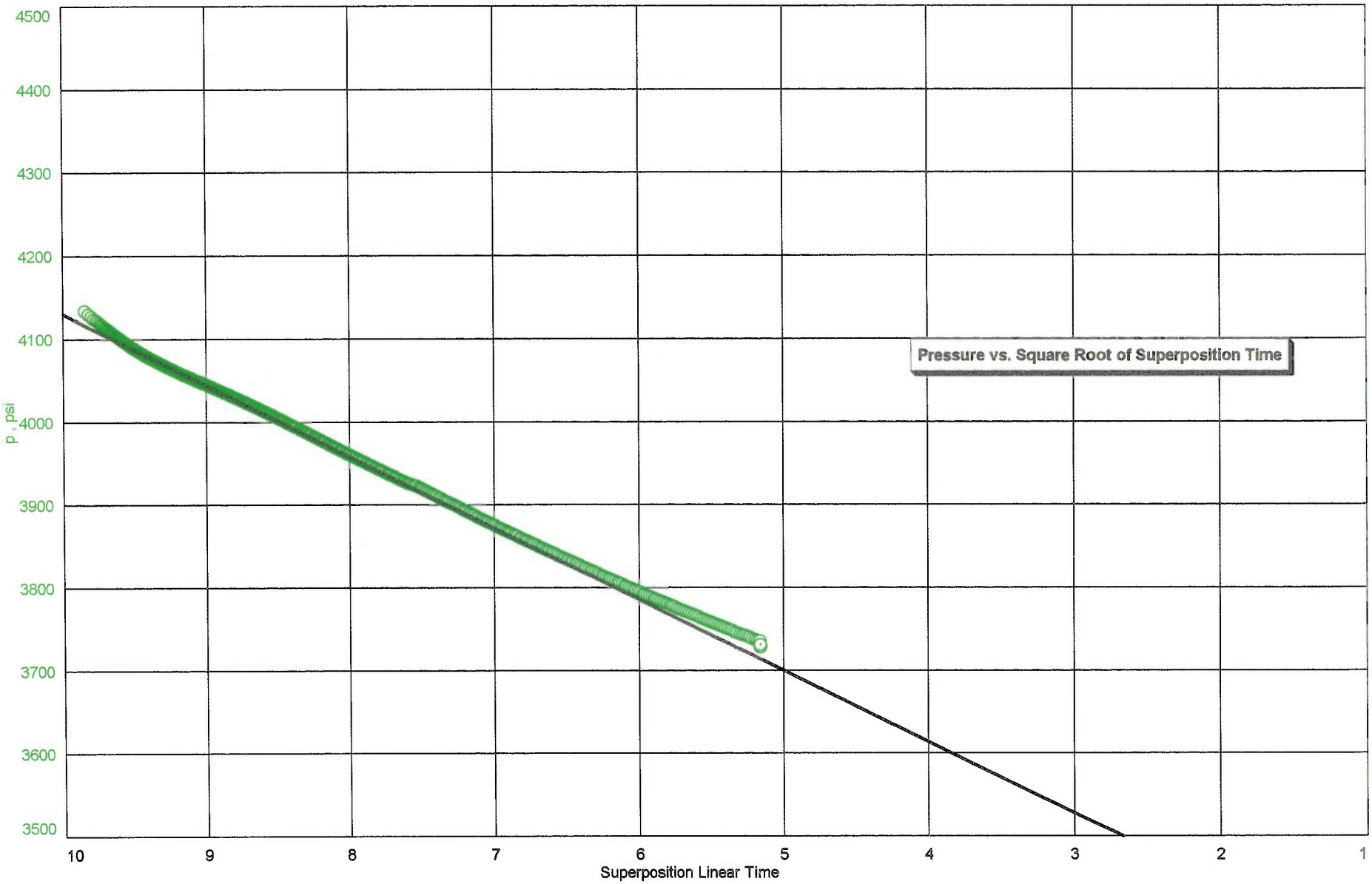
Buckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

RADIAL PLOT



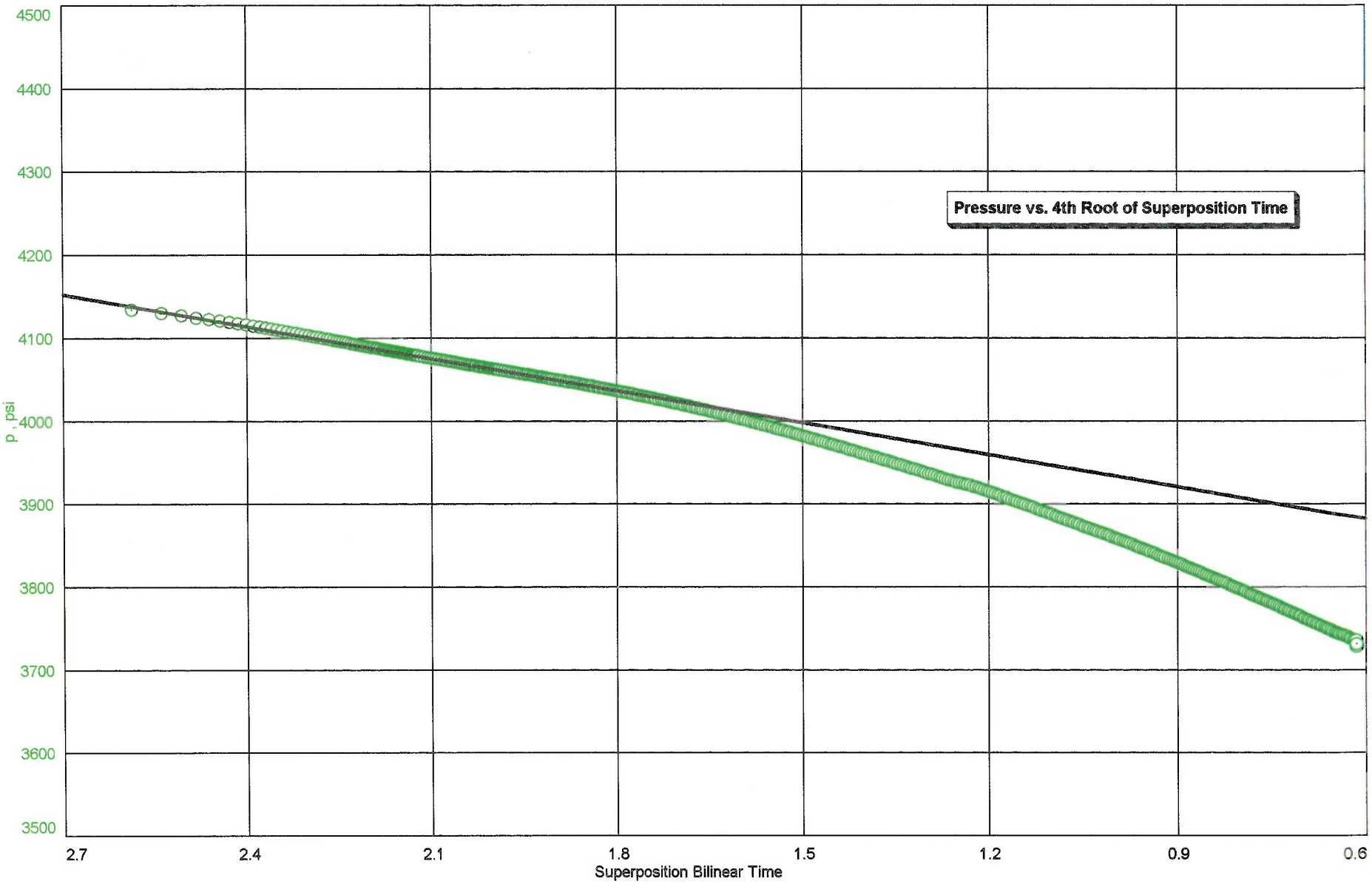
Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

LINEAR PLOT



Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

BILINEAR PLOT



ATLAS WIRELINE SERVICES

DUAL INDUCTION FOCUSED LOG
GAMMA RAY

FILE NO.

API NO.

COMPANY WRIGHT'S DISPOSAL

WELL SUCKLA FARMS INJECTION WELL NO.1

FIELD SPINDLE

COUNTY WELD STATE COLORADO

LOCATION:

NW/4
500 FSL & 2020 FWL

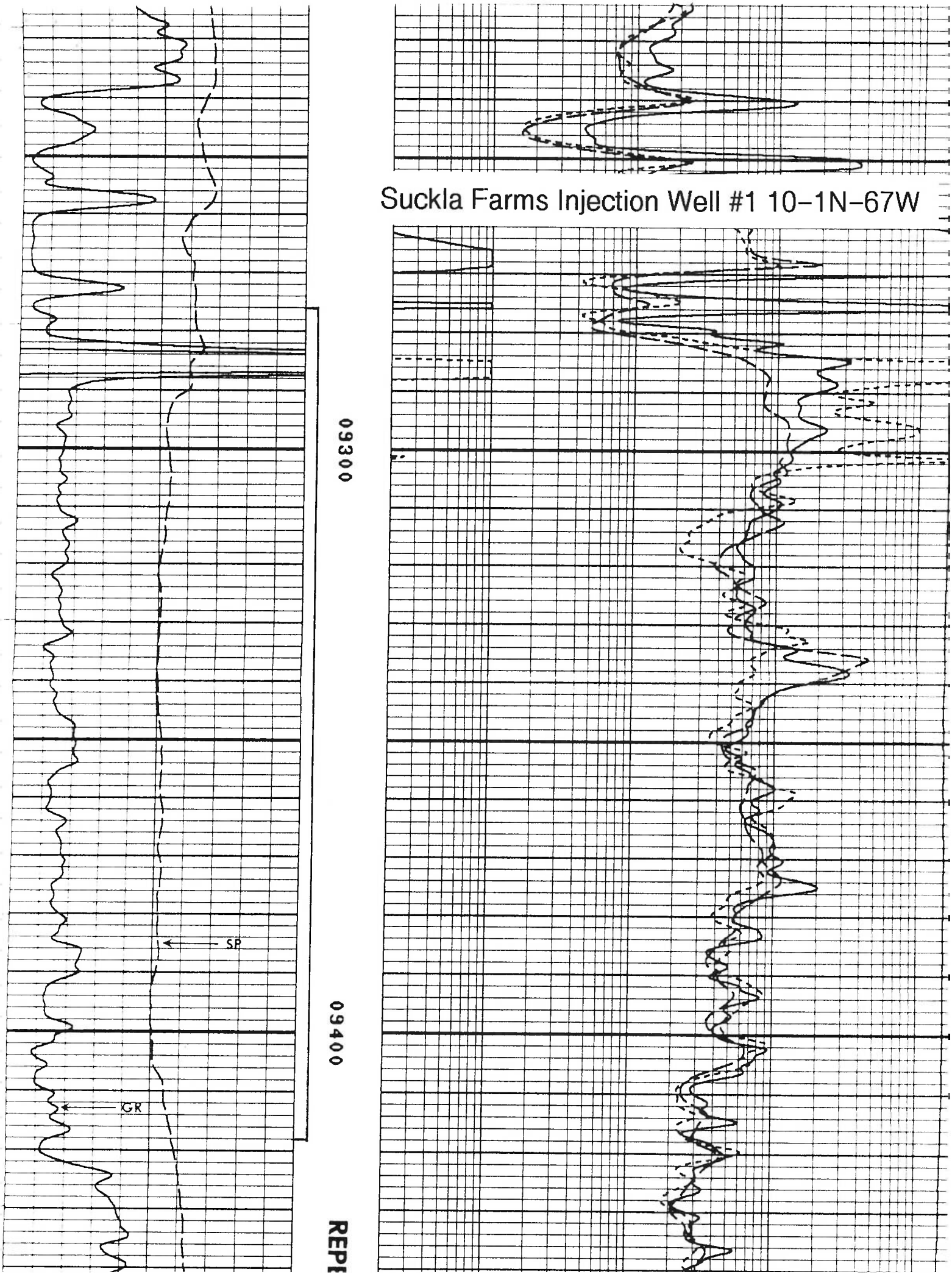
SEC 10 TWP 1N RGE 67W

OTHER SERVICES
CDLC/CNL/GR

PERMANENT DATUM G.L. ELEV. 5046.2
LOGGING MEASURED FROM K.B. 10 FT. ABOVE P.D.
DRILLING MEASURED FROM K.B.

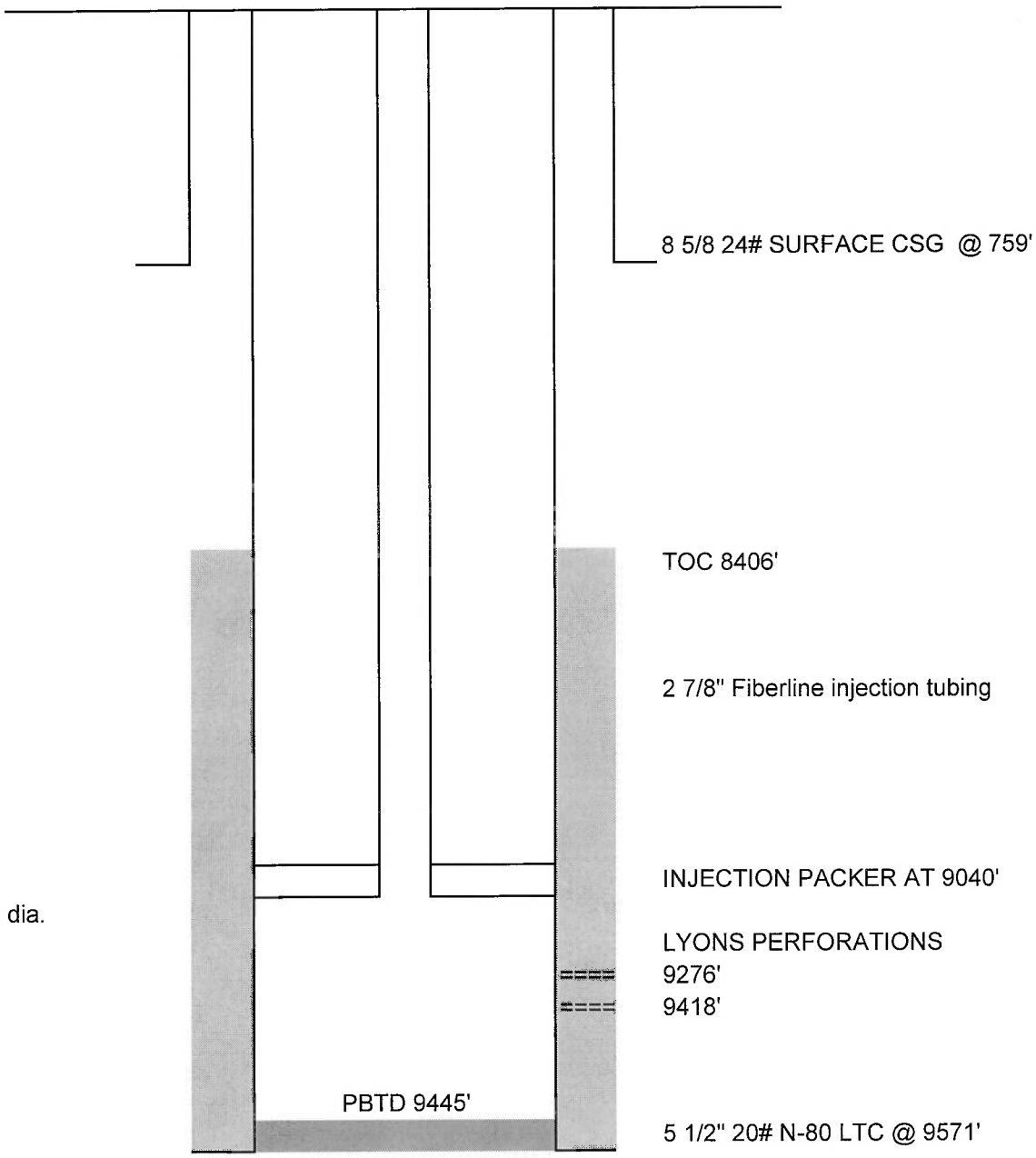
ELEVATIONS
KB 5056.2
DF
GL 5046.2

DATE	7-02-89			
RUN	1			
SERVICE ORDER	000898			
DEPTH-DRILLER	9573			
DEPTH-LOGGER	9571			
BOTTOM LOGGED INTERVAL	9569			
TOP LOGGED INTERVAL	CASING			
CASING - DRILLER	8 5/8"	@ 770	@	
CASING - LOGGER	770			
BIT SIZE	7 7/8"			
TYPE FLUID IN HOLE	POLYMER-GEL			
DENSITY / VISCOSITY	8.9	60		
PH / FLUID LOSS	10.5	10.4		
SOURCE OF SAMPLE	MUDPIT			
RM AT MEAS. TEMP.	1.07	@ 102	@	
RMF AT MEAS. TEMP.	.80	@ 102	@	
RMC AT MEAS. TEMP.	1.34	@ 102	@	
SOURCE OF RMF / RMC	CALC.	CALC.		
RM AT BHT	0.52	@ 212	@	
TIME SINCE CIRCULATION	3.0 HRS.			
MAX. REC. TEMP. DEG. F	212			
EQUIP. NO. / LOC.	HL-6401	FT. MORGAN		
RECORDED BY	L.L. LEBSOCK			
WITNESSED BY	ROBERT FULLOP			


Suckla Farms Injection Well #1 10-1N-67W
09300
09400
SP
GR

WELLBORE SCHEMATIC

WATTENBERG DISPOSAL
SUCKLA FARMS INJECTION WELL #1
NW/4 SECTION 10-1N-67W
WELD COUNTY, CO
05-123-14291



7 7/8" hole dia.
rw=0.328'

ASP
4/2/03

Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
1	12/30/2002 08:00:00	0.0000	0.0000				-1789.00
2	12/30/2002 13:00:00	5.0000	5.0000				-1789.00
3	12/31/2002 08:00:00	24.0000	24.0000				0.00
4	12/31/2002 18:00:00	34.0000	34.0000				-1789.00
5	01/02/2003 08:00:00	72.0000	72.0000				0.00
6	01/02/2003 11:30:00	75.5000	75.5000				-1789.00
7	01/03/2003 08:00:00	96.0000	96.0000				0.00
8	01/03/2003 15:00:00	103.0000	103.0000				-1789.00
9	01/04/2003 08:00:00	120.0000	120.0000				0.00
10	01/04/2003 13:00:00	125.0000	125.0000				-1789.00
11	01/06/2003 08:00:00	168.0000	168.0000				0.00
12	01/06/2003 20:00:00	180.0000	180.0000				-1789.00
13	01/09/2003 08:00:00	240.0000	240.0000				0.00
14	01/10/2003 08:00:00	264.0000	264.0000				
15	01/11/2003 08:00:00	288.0000	288.0000				
16	01/12/2003 08:00:00	312.0000	312.0000				
17	01/13/2003 08:00:00	336.0000	336.0000				
18	01/14/2003 08:00:00	360.0000	360.0000				
19	01/15/2003 08:00:00	384.0000	384.0000				
20	01/16/2003 08:00:00	408.0000	408.0000				
21	01/17/2003 08:00:00	432.0000	432.0000				
22	01/18/2003 08:00:00	456.0000	456.0000				
23	01/19/2003 08:00:00	480.0000	480.0000				
24	01/20/2003 08:00:00	504.0000	504.0000				
25	01/20/2003 18:30:00	514.5000	514.5000				-1789.00
26	01/21/2003 08:00:00	528.0000	528.0000				0.00
27	01/21/2003 16:00:00	536.0000	536.0000				-3578.00
28	01/22/2003 08:00:00	552.0000	552.0000				0.00
29	01/22/2003 15:00:00	559.0000	559.0000				-3578.00
30	01/23/2003 08:00:00	576.0000	576.0000				0.00
31	01/23/2003 14:00:00	582.0000	582.0000				-3578.00
32	01/24/2003 08:00:00	600.0000	600.0000				0.00
33	01/24/2003 12:00:00	604.0000	604.0000				-1789.00
34	01/25/2003 08:00:00	624.0000	624.0000				0.00
35	01/25/2003 14:00:00	630.0000	630.0000				-3578.00
36	01/27/2003 08:00:00	672.0000	672.0000				0.00
37	01/27/2003 16:00:00	680.0000	680.0000				-3578.00
38	01/28/2003 08:00:00	696.0000	696.0000				0.00
39	01/28/2003 16:00:00	704.0000	704.0000				-3578.00
40	01/29/2003 08:00:00	720.0000	720.0000				0.00
41	01/29/2003 16:00:00	728.0000	728.0000				-1789.00
42	01/30/2003 08:00:00	744.0000	744.0000				0.00
43	01/30/2003 16:00:00	752.0000	752.0000				-1789.00
44	01/31/2003 08:00:00	768.0000	768.0000				0.00
45	01/31/2003 16:00:00	776.0000	776.0000				-1789.00
46	02/01/2003 08:00:00	792.0000	792.0000				0.00
47	02/01/2003 12:00:00	796.0000	796.0000				-1789.00
48	02/03/2003 14:36:02	846.6006	846.6006	12.01			0.00
49	02/03/2003 15:23:07	847.3853	847.3853	3796.41			
50	02/03/2003 16:10:53	848.1814	848.1814	3794.25			
51	02/03/2003 16:59:23	848.9897	848.9897	3793.26			
52	02/03/2003 17:48:38	849.8106	849.8106	3792.33			
53	02/03/2003 18:38:38	850.6439	850.6439	3791.34			
54	02/03/2003 19:29:23	851.4897	851.4897	3790.28			

Injection Rate vs Time

Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
55	02/03/2003 20:20:53	852.3481	852.3481	3789.29			
56	02/03/2003 21:13:23	853.2231	853.2231	3788.20			
57	02/03/2003 22:06:38	854.1106	854.1106	3787.15			
58	02/03/2003 23:00:38	855.0106	855.0106	3786.05			
59	02/03/2003 23:55:38	855.9272	855.9272	3784.94			
60	02/04/2003 00:51:23	856.8564	856.8564	3783.84			
61	02/04/2003 01:47:53	857.7981	857.7981	3782.79			
62	02/04/2003 02:45:23	858.7564	858.7564	3781.73			
63	02/04/2003 03:43:38	859.7272	859.7272	3780.69			
64	02/04/2003 04:42:53	860.7147	860.7147	3779.65			
65	02/04/2003 05:43:08	861.7189	861.7189	3778.62			
66	02/04/2003 06:44:08	862.7356	862.7356	3777.58			
67	02/04/2003 07:46:08	863.7689	863.7689	3776.53			
68	02/04/2003 08:49:08	864.8189	864.8189	3775.42			
69	02/04/2003 09:34:23	865.5731	865.5731	3776.03			
70	02/04/2003 09:34:38	865.5772	865.5772	3776.86			
71	02/04/2003 09:34:53	865.5814	865.5814	3777.55			-1789.00
72	02/04/2003 09:35:08	865.5856	865.5856	3779.16			
73	02/04/2003 09:35:23	865.5897	865.5897	3780.20			
74	02/04/2003 09:35:38	865.5939	865.5939	3782.51			
75	02/04/2003 09:35:53	865.5981	865.5981	3785.22			
76	02/04/2003 09:36:08	865.6022	865.6022	3787.26			
77	02/04/2003 09:36:23	865.6064	865.6064	3790.37			
78	02/04/2003 09:36:38	865.6106	865.6106	3798.08			
79	02/04/2003 09:36:53	865.6147	865.6147	3807.82			
80	02/04/2003 09:37:08	865.6189	865.6189	3816.01			
81	02/04/2003 09:37:23	865.6231	865.6231	3824.17			
82	02/04/2003 09:37:38	865.6272	865.6272	3831.47			
83	02/04/2003 09:37:53	865.6314	865.6314	3838.08			
84	02/04/2003 09:38:08	865.6356	865.6356	3844.40			
85	02/04/2003 09:38:23	865.6397	865.6397	3855.25			
86	02/04/2003 09:38:38	865.6439	865.6439	3866.40			
87	02/04/2003 09:38:53	865.6481	865.6481	3876.75			
88	02/04/2003 09:39:08	865.6522	865.6522	3885.27			
89	02/04/2003 09:39:23	865.6564	865.6564	3892.44			
90	02/04/2003 09:39:38	865.6606	865.6606	3898.28			
91	02/04/2003 09:39:53	865.6647	865.6647	3903.33			
92	02/04/2003 09:40:08	865.6689	865.6689	3907.80			
93	02/04/2003 09:40:23	865.6731	865.6731	3911.84			
94	02/04/2003 09:40:38	865.6772	865.6772	3915.52			
95	02/04/2003 09:40:53	865.6814	865.6814	3918.96			
96	02/04/2003 09:41:08	865.6856	865.6856	3922.15			
97	02/04/2003 09:41:23	865.6897	865.6897	3925.05			
98	02/04/2003 09:41:38	865.6939	865.6939	3927.83			
99	02/04/2003 09:41:53	865.6981	865.6981	3930.45			
100	02/04/2003 09:42:08	865.7022	865.7022	3933.04			
101	02/04/2003 09:42:23	865.7064	865.7064	3935.53			
102	02/04/2003 09:42:38	865.7106	865.7106	3938.10			
103	02/04/2003 09:42:53	865.7147	865.7147	3940.43			
104	02/04/2003 09:43:08	865.7189	865.7189	3942.63			
105	02/04/2003 09:43:23	865.7231	865.7231	3944.69			
106	02/04/2003 09:43:38	865.7272	865.7272	3946.59			
107	02/04/2003 09:43:53	865.7314	865.7314	3948.46			
108	02/04/2003 09:44:08	865.7356	865.7356	3950.35			

Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
109	02/04/2003 09:44:23	865.7397	865.7397	3952.18			
110	02/04/2003 09:44:38	865.7439	865.7439	3953.82			
111	02/04/2003 09:44:53	865.7481	865.7481	3955.59			
112	02/04/2003 09:45:08	865.7522	865.7522	3957.12			
113	02/04/2003 09:45:23	865.7564	865.7564	3958.74			
114	02/04/2003 09:45:38	865.7606	865.7606	3960.42			
115	02/04/2003 09:45:53	865.7647	865.7647	3961.87			
116	02/04/2003 09:46:08	865.7689	865.7689	3963.23			
117	02/04/2003 09:46:23	865.7731	865.7731	3964.63			
118	02/04/2003 09:46:38	865.7772	865.7772	3965.96			
119	02/04/2003 09:46:53	865.7814	865.7814	3967.26			
120	02/04/2003 09:47:08	865.7856	865.7856	3968.45			
121	02/04/2003 09:47:23	865.7897	865.7897	3969.66			
122	02/04/2003 09:47:38	865.7939	865.7939	3970.97			
123	02/04/2003 09:47:53	865.7981	865.7981	3972.04			
124	02/04/2003 09:48:08	865.8022	865.8022	3973.15			
125	02/04/2003 09:48:23	865.8064	865.8064	3974.24			
126	02/04/2003 09:48:38	865.8106	865.8106	3974.94			
127	02/04/2003 09:48:53	865.8147	865.8147	3976.08			
128	02/04/2003 09:49:08	865.8189	865.8189	3977.23			
129	02/04/2003 09:49:23	865.8231	865.8231	3978.30			
130	02/04/2003 09:49:38	865.8272	865.8272	3979.42			
131	02/04/2003 09:49:53	865.8314	865.8314	3980.34			
132	02/04/2003 09:50:08	865.8356	865.8356	3981.44			
133	02/04/2003 09:50:23	865.8397	865.8397	3982.45			
134	02/04/2003 09:50:38	865.8439	865.8439	3983.39			
135	02/04/2003 09:50:53	865.8481	865.8481	3984.31			
136	02/04/2003 09:51:23	865.8564	865.8564	3986.09			
137	02/04/2003 09:51:53	865.8647	865.8647	3987.87			
138	02/04/2003 09:52:23	865.8731	865.8731	3989.50			
139	02/04/2003 09:52:53	865.8814	865.8814	3991.18			
140	02/04/2003 09:53:23	865.8897	865.8897	3992.62			
141	02/04/2003 09:53:53	865.8981	865.8981	3993.84			
142	02/04/2003 09:54:23	865.9064	865.9064	3995.54			
143	02/04/2003 09:54:53	865.9147	865.9147	3997.05			
144	02/04/2003 09:55:23	865.9231	865.9231	3998.61			
145	02/04/2003 09:55:53	865.9314	865.9314	3999.90			
146	02/04/2003 09:56:23	865.9397	865.9397	4001.21			
147	02/04/2003 09:56:53	865.9481	865.9481	4002.50			
148	02/04/2003 09:57:23	865.9564	865.9564	4003.79			
149	02/04/2003 09:57:53	865.9647	865.9647	4005.11			
150	02/04/2003 09:58:23	865.9731	865.9731	4006.26			
151	02/04/2003 09:58:53	865.9814	865.9814	4007.32			
152	02/04/2003 09:59:23	865.9897	865.9897	4008.49			
153	02/04/2003 09:59:53	865.9981	865.9981	4009.81			
154	02/04/2003 10:00:23	866.0064	866.0064	4010.96			
155	02/04/2003 10:00:53	866.0147	866.0147	4012.29			
156	02/04/2003 10:01:23	866.0231	866.0231	4013.28			
157	02/04/2003 10:01:53	866.0314	866.0314	4014.38			
158	02/04/2003 10:02:23	866.0397	866.0397	4015.42			
159	02/04/2003 10:02:53	866.0481	866.0481	4016.50			
160	02/04/2003 10:03:23	866.0564	866.0564	4017.58			
161	02/04/2003 10:03:53	866.0647	866.0647	4018.58			
162	02/04/2003 10:04:23	866.0731	866.0731	4019.56			

Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
163	02/04/2003 10:04:53	866.0814	866.0814	4020.49			
164	02/04/2003 10:05:23	866.0897	866.0897	4021.44			
165	02/04/2003 10:05:53	866.0981	866.0981	4022.40			
166	02/04/2003 10:06:23	866.1064	866.1064	4023.59			
167	02/04/2003 10:06:53	866.1147	866.1147	4024.44			
168	02/04/2003 10:07:23	866.1231	866.1231	4025.30			
169	02/04/2003 10:08:08	866.1356	866.1356	4026.16			
170	02/04/2003 10:08:53	866.1481	866.1481	4027.33			
171	02/04/2003 10:09:38	866.1606	866.1606	4028.52			
172	02/04/2003 10:10:23	866.1731	866.1731	4029.93			
173	02/04/2003 10:11:08	866.1856	866.1856	4030.95			
174	02/04/2003 10:11:53	866.1981	866.1981	4032.00			
175	02/04/2003 10:12:38	866.2106	866.2106	4033.05			
176	02/04/2003 10:13:23	866.2231	866.2231	4033.68			
177	02/04/2003 10:14:07	866.2353	866.2353	4034.62			
178	02/04/2003 10:14:52	866.2478	866.2478	4035.46			
179	02/04/2003 10:15:37	866.2603	866.2603	4036.20			
180	02/04/2003 10:16:22	866.2728	866.2728	4037.07			
181	02/04/2003 10:17:07	866.2853	866.2853	4037.91			
182	02/04/2003 10:17:52	866.2978	866.2978	4038.83			
183	02/04/2003 10:18:37	866.3103	866.3103	4039.51			
184	02/04/2003 10:19:22	866.3228	866.3228	4040.45			
185	02/04/2003 10:20:07	866.3353	866.3353	4041.17			
186	02/04/2003 10:20:52	866.3478	866.3478	4041.98			
187	02/04/2003 10:21:37	866.3603	866.3603	4042.54			
188	02/04/2003 10:22:22	866.3728	866.3728	4043.35			
189	02/04/2003 10:23:07	866.3853	866.3853	4044.16			
190	02/04/2003 10:24:07	866.4019	866.4019	4045.24			
191	02/04/2003 10:25:07	866.4186	866.4186	4046.04			
192	02/04/2003 10:26:07	866.4353	866.4353	4046.77			
193	02/04/2003 10:27:07	866.4519	866.4519	4048.04			
194	02/04/2003 10:28:07	866.4686	866.4686	4048.74			
195	02/04/2003 10:29:07	866.4853	866.4853	4049.46			
196	02/04/2003 10:30:07	866.5019	866.5019	4050.23			
197	02/04/2003 10:31:07	866.5186	866.5186	4050.71			
198	02/04/2003 10:32:07	866.5353	866.5353	4051.31			
199	02/04/2003 10:33:07	866.5519	866.5519	4051.92			
200	02/04/2003 10:34:07	866.5686	866.5686	4052.57			
201	02/04/2003 10:35:07	866.5853	866.5853	4053.20			
202	02/04/2003 10:36:07	866.6019	866.6019	4053.88			
203	02/04/2003 10:37:07	866.6186	866.6186	4054.20			
204	02/04/2003 10:38:07	866.6353	866.6353	4054.67			
205	02/04/2003 10:39:07	866.6519	866.6519	4053.97			
206	02/04/2003 10:40:07	866.6686	866.6686	4054.43			
207	02/04/2003 10:41:22	866.6894	866.6894	4055.16			
208	02/04/2003 10:42:37	866.7103	866.7103	4056.05			
209	02/04/2003 10:43:52	866.7311	866.7311	4056.73			
210	02/04/2003 10:45:07	866.7519	866.7519	4057.20			
211	02/04/2003 10:46:22	866.7728	866.7728	4057.89			
212	02/04/2003 10:47:37	866.7936	866.7936	4058.43			
213	02/04/2003 10:48:52	866.8144	866.8144	4059.07			
214	02/04/2003 10:50:07	866.8353	866.8353	4059.66			
215	02/04/2003 10:51:22	866.8561	866.8561	4060.31			
216	02/04/2003 10:52:37	866.8769	866.8769	4060.99			

Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
217	02/04/2003 10:53:52	866.8978	866.8978	4061.54			
218	02/04/2003 10:55:07	866.9186	866.9186	4062.12			
219	02/04/2003 10:56:22	866.9394	866.9394	4062.61			
220	02/04/2003 10:57:52	866.9644	866.9644	4063.14			
221	02/04/2003 10:59:22	866.9894	866.9894	4063.62			
222	02/04/2003 11:00:52	867.0144	867.0144	4064.36			
223	02/04/2003 11:02:22	867.0394	867.0394	4064.99			
224	02/04/2003 11:03:52	867.0644	867.0644	4065.61			
225	02/04/2003 11:05:22	867.0894	867.0894	4066.15			
226	02/04/2003 11:06:52	867.1144	867.1144	4066.72			
227	02/04/2003 11:08:22	867.1394	867.1394	4067.18			
228	02/04/2003 11:09:52	867.1644	867.1644	4067.74			
229	02/04/2003 11:11:22	867.1894	867.1894	4068.21			
230	02/04/2003 11:12:52	867.2144	867.2144	4068.82			
231	02/04/2003 11:14:37	867.2436	867.2436	4069.64			
232	02/04/2003 11:16:22	867.2728	867.2728	4070.00			
233	02/04/2003 11:18:07	867.3019	867.3019	4070.75			
234	02/04/2003 11:19:52	867.3311	867.3311	4070.97			
235	02/04/2003 11:21:37	867.3603	867.3603	4071.52			
236	02/04/2003 11:23:22	867.3894	867.3894	4071.99			
237	02/04/2003 11:25:07	867.4186	867.4186	4072.51			
238	02/04/2003 11:26:52	867.4478	867.4478	4072.87			
239	02/04/2003 11:28:37	867.4769	867.4769	4073.42			
240	02/04/2003 11:30:37	867.5103	867.5103	4073.96			
241	02/04/2003 11:32:37	867.5436	867.5436	4074.55			
242	02/04/2003 11:34:37	867.5769	867.5769	4075.10			
243	02/04/2003 11:36:37	867.6103	867.6103	4075.59			
244	02/04/2003 11:38:37	867.6436	867.6436	4076.16			
245	02/04/2003 11:40:37	867.6769	867.6769	4076.71			
246	02/04/2003 11:42:37	867.7103	867.7103	4077.09			
247	02/04/2003 11:44:37	867.7436	867.7436	4077.63			
248	02/04/2003 11:46:52	867.7811	867.7811	4078.17			
249	02/04/2003 11:49:07	867.8186	867.8186	4078.55			
250	02/04/2003 11:51:22	867.8561	867.8561	4079.09			
251	02/04/2003 11:53:37	867.8936	867.8936	4079.62			
252	02/04/2003 11:55:52	867.9311	867.9311	4080.05			
253	02/04/2003 11:58:07	867.9686	867.9686	4080.42			
254	02/04/2003 12:00:22	868.0061	868.0061	4081.03			
255	02/04/2003 12:02:52	868.0478	868.0478	4081.45			
256	02/04/2003 12:05:22	868.0894	868.0894	4081.94			
257	02/04/2003 12:07:52	868.1311	868.1311	4082.35			
258	02/04/2003 12:10:22	868.1728	868.1728	4082.84			
259	02/04/2003 12:12:52	868.2144	868.2144	4083.42			
260	02/04/2003 12:15:22	868.2561	868.2561	4083.99			
261	02/04/2003 12:17:52	868.2978	868.2978	4084.50			
262	02/04/2003 12:20:37	868.3436	868.3436	4085.06			
263	02/04/2003 12:23:22	868.3894	868.3894	4085.59			
264	02/04/2003 12:26:07	868.4353	868.4353	4085.96			
265	02/04/2003 12:28:52	868.4811	868.4811	4086.56			
266	02/04/2003 12:31:37	868.5269	868.5269	4086.88			
267	02/04/2003 12:34:22	868.5728	868.5728	4087.63			
268	02/04/2003 12:37:22	868.6228	868.6228	4088.13			
269	02/04/2003 12:40:22	868.6728	868.6728	4088.43			
270	02/04/2003 12:43:22	868.7228	868.7228	4088.82			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
271	02/04/2003 12:46:22	868.7728	868.7728	4089.54			
272	02/04/2003 12:49:22	868.8228	868.8228	4089.91			
273	02/04/2003 12:52:37	868.8769	868.8769	4090.55			
274	02/04/2003 12:55:52	868.9311	868.9311	4091.05			
275	02/04/2003 12:59:07	868.9853	868.9853	4091.56			
276	02/04/2003 13:02:22	869.0394	869.0394	4092.10			
277	02/04/2003 13:05:37	869.0936	869.0936	4092.58			
278	02/04/2003 13:09:07	869.1519	869.1519	4092.95			
279	02/04/2003 13:12:37	869.2103	869.2103	4093.73			
280	02/04/2003 13:16:07	869.2686	869.2686	4094.02			
281	02/04/2003 13:19:37	869.3269	869.3269	4094.44			
282	02/04/2003 13:23:07	869.3853	869.3853	4094.71			
283	02/04/2003 13:26:52	869.4478	869.4478	4095.27			
284	02/04/2003 13:30:37	869.5103	869.5103	4095.62			
285	02/04/2003 13:34:22	869.5728	869.5728	4096.11			
286	02/04/2003 13:38:07	869.6353	869.6353	4096.47			
287	02/04/2003 13:42:07	869.7019	869.7019	4097.13			
288	02/04/2003 13:46:07	869.7686	869.7686	4097.65			
289	02/04/2003 13:50:07	869.8353	869.8353	4098.10			
290	02/04/2003 13:54:07	869.9019	869.9019	4098.51			
291	02/04/2003 13:58:22	869.9728	869.9728	4098.93			
292	02/04/2003 14:02:37	870.0436	870.0436	4099.43			
293	02/04/2003 14:06:52	870.1144	870.1144	4100.00			
294	02/04/2003 14:11:07	870.1853	870.1853	4100.60			
295	02/04/2003 14:15:37	870.2603	870.2603	4100.87			
296	02/04/2003 14:20:07	870.3353	870.3353	4101.27			
297	02/04/2003 14:24:37	870.4103	870.4103	4101.55			
298	02/04/2003 14:29:07	870.4853	870.4853	4101.95			
299	02/04/2003 14:33:52	870.5644	870.5644	4102.31			
300	02/04/2003 14:38:37	870.6436	870.6436	4102.68			
301	02/04/2003 14:43:22	870.7228	870.7228	4103.05			
302	02/04/2003 14:48:22	870.8061	870.8061	4103.45			
303	02/04/2003 14:53:22	870.8894	870.8894	4103.86			
304	02/04/2003 14:58:22	870.9728	870.9728	4104.29			
305	02/04/2003 15:03:37	871.0603	871.0603	4104.48			
306	02/04/2003 15:08:52	871.1478	871.1478	4104.90			
307	02/04/2003 15:14:07	871.2353	871.2353	4105.49			
308	02/04/2003 15:19:37	871.3269	871.3269	4105.74			
309	02/04/2003 15:25:07	871.4186	871.4186	4106.19			
310	02/04/2003 15:30:37	871.5103	871.5103	4106.62			
311	02/04/2003 15:36:22	871.6061	871.6061	4107.02			
312	02/04/2003 15:42:07	871.7019	871.7019	4107.64			
313	02/04/2003 15:47:52	871.7978	871.7978	4108.14			
314	02/04/2003 15:53:52	871.8978	871.8978	4108.48			
315	02/04/2003 15:59:52	871.9978	871.9978	4108.90			
316	02/04/2003 16:05:52	872.0978	872.0978	4109.36			
317	02/04/2003 16:12:07	872.2019	872.2019	4109.75			
318	02/04/2003 16:18:22	872.3061	872.3061	4110.23			
319	02/04/2003 16:24:37	872.4103	872.4103	4110.85			
320	02/04/2003 16:31:07	872.5186	872.5186	4111.38			
321	02/04/2003 16:37:37	872.6269	872.6269	4111.79			
322	02/04/2003 16:44:22	872.7394	872.7394	4112.01			
323	02/04/2003 16:51:07	872.8519	872.8519	4112.61			
324	02/04/2003 16:58:07	872.9686	872.9686	4112.86			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
325	02/04/2003 17:05:07	873.0853	873.0853	4113.49			
326	02/04/2003 17:12:07	873.2019	873.2019	4113.88			
327	02/04/2003 17:19:22	873.3228	873.3228	4114.35			
328	02/04/2003 17:26:37	873.4436	873.4436	4114.80			
329	02/04/2003 17:34:07	873.5686	873.5686	4115.02			
330	02/04/2003 17:41:37	873.6936	873.6936	4115.32			
331	02/04/2003 17:49:22	873.8228	873.8228	4115.77			
332	02/04/2003 17:57:07	873.9519	873.9519	4116.08			
333	02/04/2003 18:05:07	874.0853	874.0853	4116.51			
334	02/04/2003 18:13:07	874.2186	874.2186	4117.04			
335	02/04/2003 18:21:22	874.3561	874.3561	4117.35			
336	02/04/2003 18:29:37	874.4936	874.4936	4117.77			
337	02/04/2003 18:38:07	874.6353	874.6353	4118.09			
338	02/04/2003 18:46:37	874.7769	874.7769	4118.70			
339	02/04/2003 18:55:22	874.9228	874.9228	4118.80			
340	02/04/2003 19:04:07	875.0686	875.0686	4119.65			
341	02/04/2003 19:13:07	875.2186	875.2186	4120.00			
342	02/04/2003 19:22:07	875.3686	875.3686	4120.20			
343	02/04/2003 19:31:22	875.5228	875.5228	4120.67			
344	02/04/2003 19:40:37	875.6769	875.6769	4121.13			
345	02/04/2003 19:50:07	875.8353	875.8353	4121.91			
346	02/04/2003 19:59:52	875.9978	875.9978	4122.58			
347	02/04/2003 20:09:37	876.1603	876.1603	4122.64			
348	02/04/2003 20:19:37	876.3269	876.3269	4123.26			
349	02/04/2003 20:29:37	876.4936	876.4936	4123.87			
350	02/04/2003 20:39:52	876.6644	876.6644	4124.34			
351	02/04/2003 20:50:22	876.8394	876.8394	4124.87			
352	02/04/2003 21:00:52	877.0144	877.0144	4125.30			
353	02/04/2003 21:11:37	877.1936	877.1936	4125.88			
354	02/04/2003 21:22:37	877.3769	877.3769	4126.25			
355	02/04/2003 21:33:37	877.5603	877.5603	4126.69			
356	02/04/2003 21:44:52	877.7478	877.7478	4127.19			
357	02/04/2003 21:56:22	877.9394	877.9394	4127.56			
358	02/04/2003 22:07:52	878.1311	878.1311	4127.95			
359	02/04/2003 22:19:37	878.3269	878.3269	4128.70			
360	02/04/2003 22:31:37	878.5269	878.5269	4129.19			
361	02/04/2003 22:43:52	878.7311	878.7311	4129.64			
362	02/04/2003 22:56:07	878.9353	878.9353	4130.08			
363	02/04/2003 23:08:37	879.1436	879.1436	4130.72			
364	02/04/2003 23:21:22	879.3561	879.3561	4131.27			
365	02/04/2003 23:34:22	879.5728	879.5728	4131.63			
366	02/04/2003 23:47:22	879.7894	879.7894	4132.17			
367	02/05/2003 00:00:37	880.0103	880.0103	4132.72			
368	02/05/2003 00:14:07	880.2353	880.2353	4133.14			
369	02/05/2003 00:27:52	880.4644	880.4644	4133.70			
370	02/05/2003 00:41:52	880.6978	880.6978	4134.23			
371	02/05/2003 00:56:07	880.9353	880.9353	4134.85			
372	02/05/2003 01:10:37	881.1769	881.1769	4135.63			
373	02/05/2003 01:25:07	881.4186	881.4186	4136.21			
374	02/05/2003 01:39:52	881.6644	881.6644	4136.68			
375	02/05/2003 01:54:52	881.9144	881.9144	4137.40			
376	02/05/2003 02:10:07	882.1686	882.1686	4138.00			
377	02/05/2003 02:25:37	882.4269	882.4269	4138.58			
378	02/05/2003 02:41:22	882.6894	882.6894	4139.19			

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	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
379	02/05/2003 02:57:22	882.9561	882.9561	4139.94			
380	02/05/2003 03:13:37	883.2269	883.2269	4140.52			
381	02/05/2003 03:30:07	883.5019	883.5019	4140.99			
382	02/05/2003 03:46:52	883.7811	883.7811	4141.83			
383	02/05/2003 04:03:52	884.0644	884.0644	4142.64			
384	02/05/2003 04:21:07	884.3519	884.3519	4143.26			
385	02/05/2003 04:38:37	884.6436	884.6436	4143.85			
386	02/05/2003 04:56:22	884.9394	884.9394	4144.54			
387	02/05/2003 05:14:22	885.2394	885.2394	4145.16			
388	02/05/2003 05:32:37	885.5436	885.5436	4145.87			
389	02/05/2003 05:51:22	885.8561	885.8561	4146.49			
390	02/05/2003 06:10:22	886.1728	886.1728	4147.17			
391	02/05/2003 06:29:37	886.4936	886.4936	4147.95			
392	02/05/2003 06:49:07	886.8186	886.8186	4148.50			
393	02/05/2003 07:08:52	887.1478	887.1478	4149.20			
394	02/05/2003 07:29:07	887.4853	887.4853	4149.88			
395	02/05/2003 07:49:37	887.8269	887.8269	4150.51			
396	02/05/2003 08:10:22	888.1728	888.1728	4151.15			
397	02/05/2003 08:31:22	888.5228	888.5228	4151.89			
398	02/05/2003 08:52:52	888.8811	888.8811	4152.57			
399	02/05/2003 09:14:37	889.2436	889.2436	4153.30			
400	02/05/2003 09:34:52	889.5811	889.5811	4153.95			
401	02/05/2003 09:35:07	889.5853	889.5853	4154.01			
402	02/05/2003 09:35:22	889.5894	889.5894	4134.29			0.00
403	02/05/2003 09:35:37	889.5936	889.5936	4129.95			
404	02/05/2003 09:35:52	889.5978	889.5978	4127.28			
405	02/05/2003 09:36:07	889.6019	889.6019	4124.73			
406	02/05/2003 09:36:22	889.6061	889.6061	4122.80			
407	02/05/2003 09:36:37	889.6103	889.6103	4120.92			
408	02/05/2003 09:36:52	889.6144	889.6144	4119.29			
409	02/05/2003 09:37:07	889.6186	889.6186	4117.70			
410	02/05/2003 09:37:22	889.6228	889.6228	4116.31			
411	02/05/2003 09:37:37	889.6269	889.6269	4114.92			
412	02/05/2003 09:37:52	889.6311	889.6311	4113.68			
413	02/05/2003 09:38:07	889.6353	889.6353	4112.41			
414	02/05/2003 09:38:22	889.6394	889.6394	4111.22			
415	02/05/2003 09:38:37	889.6436	889.6436	4110.11			
416	02/05/2003 09:38:52	889.6478	889.6478	4109.05			
417	02/05/2003 09:39:07	889.6519	889.6519	4108.01			
418	02/05/2003 09:39:22	889.6561	889.6561	4107.00			
419	02/05/2003 09:39:37	889.6603	889.6603	4105.98			
420	02/05/2003 09:39:52	889.6644	889.6644	4105.06			
421	02/05/2003 09:40:07	889.6686	889.6686	4104.15			
422	02/05/2003 09:40:22	889.6728	889.6728	4103.23			
423	02/05/2003 09:40:37	889.6769	889.6769	4102.41			
424	02/05/2003 09:40:52	889.6811	889.6811	4101.62			
425	02/05/2003 09:41:07	889.6853	889.6853	4100.78			
426	02/05/2003 09:41:22	889.6894	889.6894	4099.96			
427	02/05/2003 09:41:37	889.6936	889.6936	4099.28			
428	02/05/2003 09:41:52	889.6978	889.6978	4098.47			
429	02/05/2003 09:42:07	889.7019	889.7019	4097.78			
430	02/05/2003 09:42:22	889.7061	889.7061	4097.09			
431	02/05/2003 09:42:37	889.7103	889.7103	4096.43			
432	02/05/2003 09:42:52	889.7144	889.7144	4095.73			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
433	02/05/2003 09:43:07	889.7186	889.7186	4095.07			
434	02/05/2003 09:43:22	889.7228	889.7228	4094.47			
435	02/05/2003 09:43:37	889.7269	889.7269	4093.79			
436	02/05/2003 09:43:52	889.7311	889.7311	4093.18			
437	02/05/2003 09:44:07	889.7353	889.7353	4092.64			
438	02/05/2003 09:44:22	889.7394	889.7394	4091.98			
439	02/05/2003 09:44:37	889.7436	889.7436	4091.44			
440	02/05/2003 09:44:52	889.7478	889.7478	4090.93			
441	02/05/2003 09:45:07	889.7519	889.7519	4090.36			
442	02/05/2003 09:45:22	889.7561	889.7561	4089.75			
443	02/05/2003 09:45:37	889.7603	889.7603	4089.25			
444	02/05/2003 09:45:52	889.7644	889.7644	4088.74			
445	02/05/2003 09:46:07	889.7686	889.7686	4088.25			
446	02/05/2003 09:46:22	889.7728	889.7728	4087.72			
447	02/05/2003 09:46:37	889.7769	889.7769	4087.22			
448	02/05/2003 09:46:52	889.7811	889.7811	4086.76			
449	02/05/2003 09:47:07	889.7853	889.7853	4086.26			
450	02/05/2003 09:47:22	889.7894	889.7894	4085.83			
451	02/05/2003 09:47:37	889.7936	889.7936	4085.39			
452	02/05/2003 09:47:52	889.7978	889.7978	4084.93			
453	02/05/2003 09:48:07	889.8019	889.8019	4084.51			
454	02/05/2003 09:48:22	889.8061	889.8061	4084.06			
455	02/05/2003 09:48:37	889.8103	889.8103	4083.63			
456	02/05/2003 09:48:52	889.8144	889.8144	4083.18			
457	02/05/2003 09:49:07	889.8186	889.8186	4082.83			
458	02/05/2003 09:49:22	889.8228	889.8228	4082.43			
459	02/05/2003 09:49:37	889.8269	889.8269	4082.00			
460	02/05/2003 09:49:52	889.8311	889.8311	4081.62			
461	02/05/2003 09:50:07	889.8353	889.8353	4081.21			
462	02/05/2003 09:50:22	889.8394	889.8394	4080.86			
463	02/05/2003 09:50:37	889.8436	889.8436	4080.48			
464	02/05/2003 09:50:52	889.8478	889.8478	4080.06			
465	02/05/2003 09:51:07	889.8519	889.8519	4079.74			
466	02/05/2003 09:51:22	889.8561	889.8561	4079.34			
467	02/05/2003 09:51:37	889.8603	889.8603	4079.04			
468	02/05/2003 09:52:07	889.8686	889.8686	4078.28			
469	02/05/2003 09:52:37	889.8769	889.8769	4077.61			
470	02/05/2003 09:53:07	889.8853	889.8853	4076.93			
471	02/05/2003 09:53:37	889.8936	889.8936	4076.30			
472	02/05/2003 09:54:07	889.9019	889.9019	4075.70			
473	02/05/2003 09:54:37	889.9103	889.9103	4075.05			
474	02/05/2003 09:55:07	889.9186	889.9186	4074.46			
475	02/05/2003 09:55:37	889.9269	889.9269	4073.86			
476	02/05/2003 09:56:07	889.9353	889.9353	4073.30			
477	02/05/2003 09:56:37	889.9436	889.9436	4072.73			
478	02/05/2003 09:57:07	889.9519	889.9519	4072.16			
479	02/05/2003 09:57:37	889.9603	889.9603	4071.64			
480	02/05/2003 09:58:07	889.9686	889.9686	4071.06			
481	02/05/2003 09:58:37	889.9769	889.9769	4070.58			
482	02/05/2003 09:59:07	889.9853	889.9853	4070.04			
483	02/05/2003 09:59:37	889.9936	889.9936	4069.57			
484	02/05/2003 10:00:07	890.0019	890.0019	4069.04			
485	02/05/2003 10:00:37	890.0103	890.0103	4068.52			
486	02/05/2003 10:01:07	890.0186	890.0186	4068.04			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
487	02/05/2003 10:01:37	890.0269	890.0269	4067.61			
488	02/05/2003 10:02:07	890.0353	890.0353	4067.17			
489	02/05/2003 10:02:37	890.0436	890.0436	4066.68			
490	02/05/2003 10:03:07	890.0519	890.0519	4066.21			
491	02/05/2003 10:03:37	890.0603	890.0603	4065.78			
492	02/05/2003 10:04:07	890.0686	890.0686	4065.36			
493	02/05/2003 10:04:37	890.0769	890.0769	4064.88			
494	02/05/2003 10:05:07	890.0853	890.0853	4064.48			
495	02/05/2003 10:05:37	890.0936	890.0936	4064.06			
496	02/05/2003 10:06:07	890.1019	890.1019	4063.63			
497	02/05/2003 10:06:37	890.1103	890.1103	4063.23			
498	02/05/2003 10:07:07	890.1186	890.1186	4062.80			
499	02/05/2003 10:07:37	890.1269	890.1269	4062.44			
500	02/05/2003 10:08:07	890.1353	890.1353	4062.03			
501	02/05/2003 10:08:52	890.1478	890.1478	4061.45			
502	02/05/2003 10:09:37	890.1603	890.1603	4060.89			
503	02/05/2003 10:10:22	890.1728	890.1728	4060.32			
504	02/05/2003 10:11:07	890.1853	890.1853	4059.76			
505	02/05/2003 10:11:52	890.1978	890.1978	4059.19			
506	02/05/2003 10:12:37	890.2103	890.2103	4058.69			
507	02/05/2003 10:13:22	890.2228	890.2228	4058.24			
508	02/05/2003 10:14:07	890.2353	890.2353	4057.66			
509	02/05/2003 10:14:52	890.2478	890.2478	4057.14			
510	02/05/2003 10:15:37	890.2603	890.2603	4056.66			
511	02/05/2003 10:16:22	890.2728	890.2728	4056.12			
512	02/05/2003 10:17:07	890.2853	890.2853	4055.64			
513	02/05/2003 10:17:52	890.2978	890.2978	4055.16			
514	02/05/2003 10:18:37	890.3103	890.3103	4054.72			
515	02/05/2003 10:19:22	890.3228	890.3228	4054.25			
516	02/05/2003 10:20:07	890.3353	890.3353	4053.75			
517	02/05/2003 10:20:52	890.3478	890.3478	4053.26			
518	02/05/2003 10:21:37	890.3603	890.3603	4052.86			
519	02/05/2003 10:22:22	890.3728	890.3728	4052.41			
520	02/05/2003 10:23:07	890.3853	890.3853	4051.92			
521	02/05/2003 10:23:52	890.3978	890.3978	4051.50			
522	02/05/2003 10:24:52	890.4144	890.4144	4050.90			
523	02/05/2003 10:25:52	890.4311	890.4311	4050.29			
524	02/05/2003 10:26:52	890.4478	890.4478	4049.75			
525	02/05/2003 10:27:52	890.4644	890.4644	4049.18			
526	02/05/2003 10:28:52	890.4811	890.4811	4048.67			
527	02/05/2003 10:29:52	890.4978	890.4978	4048.05			
528	02/05/2003 10:30:52	890.5144	890.5144	4047.50			
529	02/05/2003 10:31:52	890.5311	890.5311	4046.98			
530	02/05/2003 10:32:52	890.5478	890.5478	4046.50			
531	02/05/2003 10:33:52	890.5644	890.5644	4045.93			
532	02/05/2003 10:34:52	890.5811	890.5811	4045.41			
533	02/05/2003 10:35:52	890.5978	890.5978	4044.90			
534	02/05/2003 10:36:52	890.6144	890.6144	4044.38			
535	02/05/2003 10:37:52	890.6311	890.6311	4043.86			
536	02/05/2003 10:38:52	890.6478	890.6478	4043.35			
537	02/05/2003 10:39:52	890.6644	890.6644	4042.86			
538	02/05/2003 10:40:52	890.6811	890.6811	4042.37			
539	02/05/2003 10:42:07	890.7019	890.7019	4041.72			
540	02/05/2003 10:43:22	890.7228	890.7228	4041.10			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
541	02/05/2003 10:44:37	890.7436	890.7436	4040.50			
542	02/05/2003 10:45:52	890.7644	890.7644	4039.93			
543	02/05/2003 10:47:07	890.7853	890.7853	4039.31			
544	02/05/2003 10:48:22	890.8061	890.8061	4038.72			
545	02/05/2003 10:49:37	890.8269	890.8269	4038.15			
546	02/05/2003 10:50:52	890.8478	890.8478	4037.56			
547	02/05/2003 10:52:07	890.8686	890.8686	4036.98			
548	02/05/2003 10:53:22	890.8894	890.8894	4036.44			
549	02/05/2003 10:54:37	890.9103	890.9103	4035.84			
550	02/05/2003 10:55:52	890.9311	890.9311	4035.31			
551	02/05/2003 10:57:22	890.9561	890.9561	4034.65			
552	02/05/2003 10:58:52	890.9811	890.9811	4033.99			
553	02/05/2003 11:00:22	891.0061	891.0061	4033.33			
554	02/05/2003 11:01:52	891.0311	891.0311	4032.68			
555	02/05/2003 11:03:22	891.0561	891.0561	4032.05			
556	02/05/2003 11:04:52	891.0811	891.0811	4031.37			
557	02/05/2003 11:06:22	891.1061	891.1061	4030.77			
558	02/05/2003 11:07:52	891.1311	891.1311	4030.11			
559	02/05/2003 11:09:22	891.1561	891.1561	4029.56			
560	02/05/2003 11:10:52	891.1811	891.1811	4028.89			
561	02/05/2003 11:12:22	891.2061	891.2061	4028.26			
562	02/05/2003 11:14:07	891.2353	891.2353	4027.55			
563	02/05/2003 11:15:52	891.2644	891.2644	4026.89			
564	02/05/2003 11:17:37	891.2936	891.2936	4026.14			
565	02/05/2003 11:19:22	891.3228	891.3228	4025.46			
566	02/05/2003 11:21:07	891.3519	891.3519	4024.82			
567	02/05/2003 11:22:52	891.3811	891.3811	4024.11			
568	02/05/2003 11:24:37	891.4103	891.4103	4023.41			
569	02/05/2003 11:26:22	891.4394	891.4394	4022.75			
570	02/05/2003 11:28:07	891.4686	891.4686	4022.09			
571	02/05/2003 11:29:52	891.4978	891.4978	4021.42			
572	02/05/2003 11:31:52	891.5311	891.5311	4020.69			
573	02/05/2003 11:33:52	891.5644	891.5644	4019.95			
574	02/05/2003 11:35:52	891.5978	891.5978	4019.22			
575	02/05/2003 11:37:52	891.6311	891.6311	4018.48			
576	02/05/2003 11:39:52	891.6644	891.6644	4017.76			
577	02/05/2003 11:41:52	891.6978	891.6978	4017.05			
578	02/05/2003 11:43:52	891.7311	891.7311	4016.35			
579	02/05/2003 11:45:52	891.7644	891.7644	4015.61			
580	02/05/2003 11:48:07	891.8019	891.8019	4014.85			
581	02/05/2003 11:50:22	891.8394	891.8394	4014.05			
582	02/05/2003 11:52:37	891.8769	891.8769	4013.27			
583	02/05/2003 11:54:52	891.9144	891.9144	4012.50			
584	02/05/2003 11:57:07	891.9519	891.9519	4011.76			
585	02/05/2003 11:59:22	891.9894	891.9894	4010.97			
586	02/05/2003 12:01:37	892.0269	892.0269	4010.24			
587	02/05/2003 12:04:07	892.0686	892.0686	4009.42			
588	02/05/2003 12:06:37	892.1103	892.1103	4008.59			
589	02/05/2003 12:09:07	892.1519	892.1519	4007.80			
590	02/05/2003 12:11:37	892.1936	892.1936	4006.96			
591	02/05/2003 12:14:07	892.2353	892.2353	4006.17			
592	02/05/2003 12:16:37	892.2769	892.2769	4005.42			
593	02/05/2003 12:19:07	892.3186	892.3186	4004.57			
594	02/05/2003 12:21:52	892.3644	892.3644	4003.77			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
595	02/05/2003 12:24:37	892.4103	892.4103	4002.83			
596	02/05/2003 12:27:22	892.4561	892.4561	4002.02			
597	02/05/2003 12:30:07	892.5019	892.5019	4001.19			
598	02/05/2003 12:32:52	892.5478	892.5478	4000.35			
599	02/05/2003 12:35:52	892.5978	892.5978	3999.38			
600	02/05/2003 12:38:52	892.6478	892.6478	3998.54			
601	02/05/2003 12:41:52	892.6978	892.6978	3997.64			
602	02/05/2003 12:44:52	892.7478	892.7478	3996.80			
603	02/05/2003 12:47:52	892.7978	892.7978	3995.91			
604	02/05/2003 12:50:52	892.8478	892.8478	3995.04			
605	02/05/2003 12:54:07	892.9019	892.9019	3994.12			
606	02/05/2003 12:57:22	892.9561	892.9561	3993.20			
607	02/05/2003 13:00:37	893.0103	893.0103	3992.31			
608	02/05/2003 13:03:52	893.0644	893.0644	3991.40			
609	02/05/2003 13:07:07	893.1186	893.1186	3990.49			
610	02/05/2003 13:10:37	893.1769	893.1769	3989.56			
611	02/05/2003 13:14:07	893.2353	893.2353	3988.63			
612	02/05/2003 13:17:37	893.2936	893.2936	3987.74			
613	02/05/2003 13:21:07	893.3519	893.3519	3986.84			
614	02/05/2003 13:24:37	893.4103	893.4103	3985.87			
615	02/05/2003 13:28:22	893.4728	893.4728	3984.93			
616	02/05/2003 13:32:07	893.5353	893.5353	3984.03			
617	02/05/2003 13:35:52	893.5978	893.5978	3983.05			
618	02/05/2003 13:39:37	893.6603	893.6603	3982.13			
619	02/05/2003 13:43:37	893.7269	893.7269	3981.14			
620	02/05/2003 13:47:37	893.7936	893.7936	3980.23			
621	02/05/2003 13:51:37	893.8603	893.8603	3979.24			
622	02/05/2003 13:55:37	893.9269	893.9269	3978.31			
623	02/05/2003 13:59:52	893.9978	893.9978	3977.34			
624	02/05/2003 14:04:07	894.0686	894.0686	3976.40			
625	02/05/2003 14:08:22	894.1394	894.1394	3975.41			
626	02/05/2003 14:12:37	894.2103	894.2103	3974.46			
627	02/05/2003 14:17:07	894.2853	894.2853	3973.50			
628	02/05/2003 14:21:37	894.3603	894.3603	3972.50			
629	02/05/2003 14:26:07	894.4353	894.4353	3971.57			
630	02/05/2003 14:30:52	894.5144	894.5144	3970.57			
631	02/05/2003 14:35:37	894.5936	894.5936	3969.58			
632	02/05/2003 14:40:22	894.6728	894.6728	3968.57			
633	02/05/2003 14:45:07	894.7519	894.7519	3967.67			
634	02/05/2003 14:50:07	894.8353	894.8353	3966.59			
635	02/05/2003 14:55:07	894.9186	894.9186	3965.60			
636	02/05/2003 15:00:07	895.0019	895.0019	3964.64			
637	02/05/2003 15:05:22	895.0894	895.0894	3963.63			
638	02/05/2003 15:10:37	895.1769	895.1769	3962.67			
639	02/05/2003 15:15:52	895.2644	895.2644	3961.62			
640	02/05/2003 15:21:22	895.3561	895.3561	3960.59			
641	02/05/2003 15:26:52	895.4478	895.4478	3959.59			
642	02/05/2003 15:32:22	895.5394	895.5394	3958.64			
643	02/05/2003 15:38:07	895.6353	895.6353	3957.57			
644	02/05/2003 15:43:52	895.7311	895.7311	3956.58			
645	02/05/2003 15:49:37	895.8269	895.8269	3955.61			
646	02/05/2003 15:55:37	895.9269	895.9269	3954.51			
647	02/05/2003 16:01:37	896.0269	896.0269	3953.46			
648	02/05/2003 16:07:37	896.1269	896.1269	3952.56			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
649	02/05/2003 16:13:52	896.2311	896.2311	3951.48			
650	02/05/2003 16:20:07	896.3353	896.3353	3950.53			
651	02/05/2003 16:26:37	896.4436	896.4436	3949.43			
652	02/05/2003 16:33:07	896.5519	896.5519	3948.42			
653	02/05/2003 16:39:37	896.6603	896.6603	3947.43			
654	02/05/2003 16:46:22	896.7728	896.7728	3946.38			
655	02/05/2003 16:53:07	896.8853	896.8853	3945.36			
656	02/05/2003 17:00:07	897.0019	897.0019	3944.30			
657	02/05/2003 17:07:07	897.1186	897.1186	3943.28			
658	02/05/2003 17:14:07	897.2353	897.2353	3942.22			
659	02/05/2003 17:21:22	897.3561	897.3561	3941.19			
660	02/05/2003 17:28:37	897.4769	897.4769	3940.14			
661	02/05/2003 17:36:07	897.6019	897.6019	3939.10			
662	02/05/2003 17:43:37	897.7269	897.7269	3938.10			
663	02/05/2003 17:51:22	897.8561	897.8561	3936.99			
664	02/05/2003 17:59:07	897.9853	897.9853	3935.97			
665	02/05/2003 18:07:07	898.1186	898.1186	3934.90			
666	02/05/2003 18:15:07	898.2519	898.2519	3933.90			
667	02/05/2003 18:23:22	898.3894	898.3894	3932.76			
668	02/05/2003 18:31:37	898.5269	898.5269	3931.69			
669	02/05/2003 18:40:07	898.6686	898.6686	3930.63			
670	02/05/2003 18:48:37	898.8103	898.8103	3929.57			
671	02/05/2003 18:57:22	898.9561	898.9561	3928.53			
672	02/05/2003 19:06:08	899.1022	899.1022	3927.45			
673	02/05/2003 19:15:08	899.2522	899.2522	3926.43			
674	02/05/2003 19:24:08	899.4022	899.4022	3925.80			
675	02/05/2003 19:33:23	899.5564	899.5564	3925.05			
676	02/05/2003 19:42:53	899.7147	899.7147	3924.20			
677	02/05/2003 19:52:23	899.8731	899.8731	3923.48			
678	02/05/2003 20:02:08	900.0356	900.0356	3922.79			
679	02/05/2003 20:11:53	900.1981	900.1981	3921.37			
680	02/05/2003 20:21:53	900.3647	900.3647	3920.62			
681	02/05/2003 20:32:08	900.5356	900.5356	3919.56			
682	02/05/2003 20:42:23	900.7064	900.7064	3918.49			
683	02/05/2003 20:52:53	900.8814	900.8814	3917.38			
684	02/05/2003 21:03:23	901.0564	901.0564	3916.30			
685	02/05/2003 21:14:08	901.2356	901.2356	3915.18			
686	02/05/2003 21:25:08	901.4189	901.4189	3913.92			
687	02/05/2003 21:36:08	901.6022	901.6022	3912.73			
688	02/05/2003 21:47:23	901.7897	901.7897	3911.47			
689	02/05/2003 21:58:53	901.9814	901.9814	3910.24			
690	02/05/2003 22:10:38	902.1772	902.1772	3908.97			
691	02/05/2003 22:22:23	902.3731	902.3731	3907.88			
692	02/05/2003 22:34:23	902.5731	902.5731	3906.61			
693	02/05/2003 22:46:38	902.7772	902.7772	3905.42			
694	02/05/2003 22:58:53	902.9814	902.9814	3904.19			
695	02/05/2003 23:11:23	903.1897	903.1897	3903.02			
696	02/05/2003 23:24:08	903.4022	903.4022	3901.81			
697	02/05/2003 23:37:08	903.6189	903.6189	3900.64			
698	02/05/2003 23:50:23	903.8397	903.8397	3899.45			
699	02/06/2003 00:03:38	904.0606	904.0606	3898.26			
700	02/06/2003 00:17:08	904.2856	904.2856	3897.03			
701	02/06/2003 00:30:53	904.5147	904.5147	3895.83			
702	02/06/2003 00:44:53	904.7481	904.7481	3894.49			

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Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
703	02/06/2003 00:59:08	904.9856	904.9856	3893.23			
704	02/06/2003 01:13:38	905.2272	905.2272	3892.03			
705	02/06/2003 01:28:23	905.4731	905.4731	3890.85			
706	02/06/2003 01:43:08	905.7189	905.7189	3889.59			
707	02/06/2003 01:58:08	905.9689	905.9689	3888.48			
708	02/06/2003 02:13:23	906.2231	906.2231	3887.24			
709	02/06/2003 02:28:53	906.4814	906.4814	3885.75			
710	02/06/2003 02:44:38	906.7439	906.7439	3884.78			
711	02/06/2003 03:00:38	907.0106	907.0106	3883.61			
712	02/06/2003 03:16:53	907.2814	907.2814	3882.37			
713	02/06/2003 03:33:23	907.5564	907.5564	3881.19			
714	02/06/2003 03:50:08	907.8356	907.8356	3879.99			
715	02/06/2003 04:07:08	908.1189	908.1189	3878.82			
716	02/06/2003 04:24:23	908.4064	908.4064	3877.57			
717	02/06/2003 04:41:53	908.6981	908.6981	3876.43			
718	02/06/2003 04:59:38	908.9939	908.9939	3875.22			
719	02/06/2003 05:17:53	909.2981	909.2981	3874.06			
720	02/06/2003 05:36:23	909.6064	909.6064	3872.82			
721	02/06/2003 05:55:08	909.9189	909.9189	3871.67			
722	02/06/2003 06:14:08	910.2356	910.2356	3870.50			
723	02/06/2003 06:33:23	910.5564	910.5564	3869.26			
724	02/06/2003 06:52:53	910.8814	910.8814	3868.10			
725	02/06/2003 07:12:53	911.2147	911.2147	3866.94			
726	02/06/2003 07:33:08	911.5522	911.5522	3865.73			
727	02/06/2003 07:53:38	911.8939	911.8939	3864.48			
728	02/06/2003 08:14:23	912.2397	912.2397	3863.30			
729	02/06/2003 08:35:38	912.5939	912.5939	3862.12			
730	02/06/2003 08:57:08	912.9522	912.9522	3860.89			
731	02/06/2003 09:18:53	913.3147	913.3147	3859.72			
732	02/06/2003 09:41:08	913.6856	913.6856	3858.50			
733	02/06/2003 10:03:38	914.0606	914.0606	3857.29			
734	02/06/2003 10:26:23	914.4397	914.4397	3856.06			
735	02/06/2003 10:49:38	914.8272	914.8272	3854.84			
736	02/06/2003 11:13:08	915.2189	915.2189	3853.65			
737	02/06/2003 11:37:08	915.6189	915.6189	3852.41			
738	02/06/2003 12:01:23	916.0231	916.0231	3851.19			
739	02/06/2003 12:26:08	916.4356	916.4356	3849.94			
740	02/06/2003 12:51:08	916.8522	916.8522	3848.70			
741	02/06/2003 13:16:38	917.2772	917.2772	3847.54			
742	02/06/2003 13:42:23	917.7064	917.7064	3846.29			
743	02/06/2003 14:08:38	918.1439	918.1439	3845.03			
744	02/06/2003 14:35:23	918.5897	918.5897	3843.85			
745	02/06/2003 15:02:38	919.0439	919.0439	3842.68			
746	02/06/2003 15:30:08	919.5022	919.5022	3841.53			
747	02/06/2003 15:58:08	919.9689	919.9689	3840.32			
748	02/06/2003 16:26:38	920.4439	920.4439	3839.12			
749	02/06/2003 16:55:38	920.9272	920.9272	3837.90			
750	02/06/2003 17:25:08	921.4189	921.4189	3836.72			
751	02/06/2003 17:55:08	921.9189	921.9189	3835.53			
752	02/06/2003 18:25:38	922.4272	922.4272	3834.34			
753	02/06/2003 18:56:08	922.9356	922.9356	3833.16			
754	02/06/2003 19:27:08	923.4522	923.4522	3831.96			
755	02/06/2003 19:58:38	923.9772	923.9772	3830.75			
756	02/06/2003 20:30:38	924.5106	924.5106	3829.58			

Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
757	02/06/2003 21:03:08	925.0522	925.0522	3828.36			
758	02/06/2003 21:36:08	925.6022	925.6022	3827.17			
759	02/06/2003 22:09:38	926.1606	926.1606	3825.94			
760	02/06/2003 22:43:38	926.7272	926.7272	3824.80			
761	02/06/2003 23:18:08	927.3022	927.3022	3823.52			
762	02/06/2003 23:53:38	927.8939	927.8939	3822.30			
763	02/07/2003 00:29:38	928.4939	928.4939	3821.08			
764	02/07/2003 01:06:08	929.1022	929.1022	3819.84			
765	02/07/2003 01:43:08	929.7189	929.7189	3818.62			
766	02/07/2003 02:20:38	930.3439	930.3439	3817.45			
767	02/07/2003 02:58:38	930.9772	930.9772	3816.22			
768	02/07/2003 03:37:08	931.6189	931.6189	3815.04			
769	02/07/2003 04:16:38	932.2772	932.2772	3813.83			
770	02/07/2003 04:56:38	932.9439	932.9439	3812.59			
771	02/07/2003 05:37:08	933.6189	933.6189	3811.38			
772	02/07/2003 06:18:08	934.3022	934.3022	3810.24			
773	02/07/2003 07:00:08	935.0022	935.0022	3809.06			
774	02/07/2003 07:42:38	935.7106	935.7106	3807.87			
775	02/07/2003 08:25:38	936.4272	936.4272	3806.67			
776	02/07/2003 09:09:08	937.1522	937.1522	3805.45			
777	02/07/2003 09:53:38	937.8939	937.8939	3804.24			
778	02/07/2003 10:38:38	938.6439	938.6439	3803.02			
779	02/07/2003 11:24:38	939.4106	939.4106	3801.84			
780	02/07/2003 12:11:08	940.1856	940.1856	3800.61			
781	02/07/2003 12:58:08	940.9689	940.9689	3799.41			
782	02/07/2003 13:46:08	941.7689	941.7689	3798.18			
783	02/07/2003 14:34:38	942.5772	942.5772	3796.98			
784	02/07/2003 15:24:08	943.4022	943.4022	3795.72			
785	02/07/2003 16:14:08	944.2356	944.2356	3794.54			
786	02/07/2003 17:05:08	945.0856	945.0856	3793.33			
787	02/07/2003 17:57:08	945.9522	945.9522	3792.18			
788	02/07/2003 18:49:38	946.8272	946.8272	3791.01			
789	02/07/2003 19:43:08	947.7189	947.7189	3789.83			
790	02/07/2003 20:37:08	948.6189	948.6189	3788.63			
791	02/07/2003 21:32:08	949.5356	949.5356	3787.50			
792	02/07/2003 22:28:08	950.4689	950.4689	3786.31			
793	02/07/2003 23:25:08	951.4189	951.4189	3785.14			
794	02/08/2003 00:22:38	952.3772	952.3772	3783.90			
795	02/08/2003 01:21:08	953.3522	953.3522	3782.71			
796	02/08/2003 02:20:38	954.3439	954.3439	3781.53			
797	02/08/2003 03:21:08	955.3522	955.3522	3780.33			
798	02/08/2003 04:22:38	956.3772	956.3772	3779.14			
799	02/08/2003 05:24:38	957.4106	957.4106	3777.92			
800	02/08/2003 06:27:38	958.4606	958.4606	3776.77			
801	02/08/2003 07:31:38	959.5272	959.5272	3775.60			
802	02/08/2003 08:36:38	960.6106	960.6106	3774.44			
803	02/08/2003 09:42:38	961.7106	961.7106	3773.21			
804	02/08/2003 10:49:38	962.8272	962.8272	3772.06			
805	02/08/2003 11:57:38	963.9606	963.9606	3770.82			
806	02/08/2003 13:07:08	965.1189	965.1189	3769.62			
807	02/08/2003 14:17:38	966.2939	966.2939	3768.41			
808	02/08/2003 15:29:08	967.4856	967.4856	3767.16			
809	02/08/2003 16:41:38	968.6939	968.6939	3765.96			
810	02/08/2003 17:55:08	969.9189	969.9189	3764.79			

Suckla Farms Injection Well #1
EPA Region 6 Permit# CO1516-02115
Falloff Test February 3-10, 2003

Item	Date/Clock Time	Time	Cum. Time	Sandface Pressure	Gas Rate	Oil Rate	Water Rate
	MM/DD/YYYY	hr	hr	psi(a)	MMCF/D	bbl/d	bbl/d
811	02/08/2003 19:10:08	971.1689	971.1689	3763.57			
812	02/08/2003 20:26:08	972.4356	972.4356	3762.44			
813	02/08/2003 21:43:08	973.7189	973.7189	3761.27			
814	02/08/2003 23:01:38	975.0272	975.0272	3760.13			
815	02/09/2003 00:21:08	976.3522	976.3522	3758.91			
816	02/09/2003 01:42:08	977.7022	977.7022	3757.71			
817	02/09/2003 03:04:08	979.0689	979.0689	3756.52			
818	02/09/2003 04:27:38	980.4606	980.4606	3755.31			
819	02/09/2003 05:52:08	981.8689	981.8689	3754.16			
820	02/09/2003 07:18:08	983.3022	983.3022	3752.99			
821	02/09/2003 08:45:08	984.7522	984.7522	3751.74			
822	02/09/2003 10:13:38	986.2272	986.2272	3750.56			
823	02/09/2003 11:43:38	987.7272	987.7272	3749.37			
824	02/09/2003 13:15:08	989.2522	989.2522	3748.17			
825	02/09/2003 14:48:38	990.8106	990.8106	3746.96			
826	02/09/2003 16:22:38	992.3772	992.3772	3745.82			
827	02/09/2003 17:58:38	993.9772	993.9772	3744.70			
828	02/09/2003 19:35:38	995.5939	995.5939	3743.53			
829	02/09/2003 21:14:38	997.2439	997.2439	3742.42			
830	02/09/2003 22:54:38	998.9106	998.9106	3741.28			
831	02/10/2003 00:36:38	1000.6106	1000.6106	3740.13			
832	02/10/2003 02:20:38	1002.3439	1002.3439	3738.97			
833	02/10/2003 04:05:38	1004.0939	1004.0939	3737.81			
834	02/10/2003 05:52:38	1005.8772	1005.8772	3736.68			
835	02/10/2003 07:40:38	1007.6772	1007.6772	3735.80			
836	02/10/2003 08:06:38	1008.1106	1008.1106	3728.46			
837	02/10/2003 08:07:38	1008.1272	1008.1272	3730.97			
838	02/10/2003 08:23:37	1008.3936	1008.3936	13.10			-1789.00
839	02/10/2003 08:25:37	1008.4269	1008.4269	13.10			
840	02/10/2003 08:26:37	1008.4436	1008.4436	13.10			

LIGHTNING WIRELINE

A Ponkan Services (U.S.) Ltd. Company

KP Kauffman

Suckla Farms Inj. Well #1

SE NW 10-1N-67W

Injection & Falloff

2003-02-03 to 2003-02-10

LIGHTNING WIRELINE

A Lonkar Services (U.S.) Ltd. Company

COMPANY:	KP Kauffman
ADDRESS:	N/A
WELL NAME:	Suckla Farms Inj. Well #1
LOCATION:	SE NW 10-1N-67W
FIELD - POOL:	Wattenberg - Lyons
STATUS:	N/A
ORIENTATION:	Vertical

TEST INFORMATION:

FILE REFERENCE:	KP10-1B/T		
TEST TYPE:	Injection & Falloff		
DATE OF TEST:	2003-02-03 to 2003-02-10		
SHUT IN DATE:	2003-02-05 09:34:00		
ON BOTTOM:	2003-02-03 15:21:00		
OFF BOTTOM:	2003-02-10 08:06:00		
PRODUCTION INTERVAL:	9276.0 - 9418.0 ft		
MID POINT PERFS.:	9347.0 ft		
PROD. THROUGH:	2 7/8 TUBING		
TUBING PRESSURE:	BEFORE: N/A	AFTER:	N/A
CASING PRESSURE:	BEFORE: N/A	AFTER:	N/A

GAUGE DATA:

	TOP:	BOTTOM:
GAUGE TYPE:	Well Watchers HT	Well Watchers HT
SERIAL NUMBER:	5077	5099
RUN DEPTH:	9004.50 ft	9005.0 ft
BATTERY ON TIME:	2003-02-03 14:36:00	2003-02-03 14:36:00
BATTERY OFF TIME:	2003-02-10 08:26:00	2003-02-10 08:26:00
CALIBRATION DATE:	2001-09-24	2001-09-24
PRESSURE RANGE:	5000 psi	5000 psi
ACCURACY:	0.05%	0.05%
RESOLUTION:	0.0003%	0.0003%

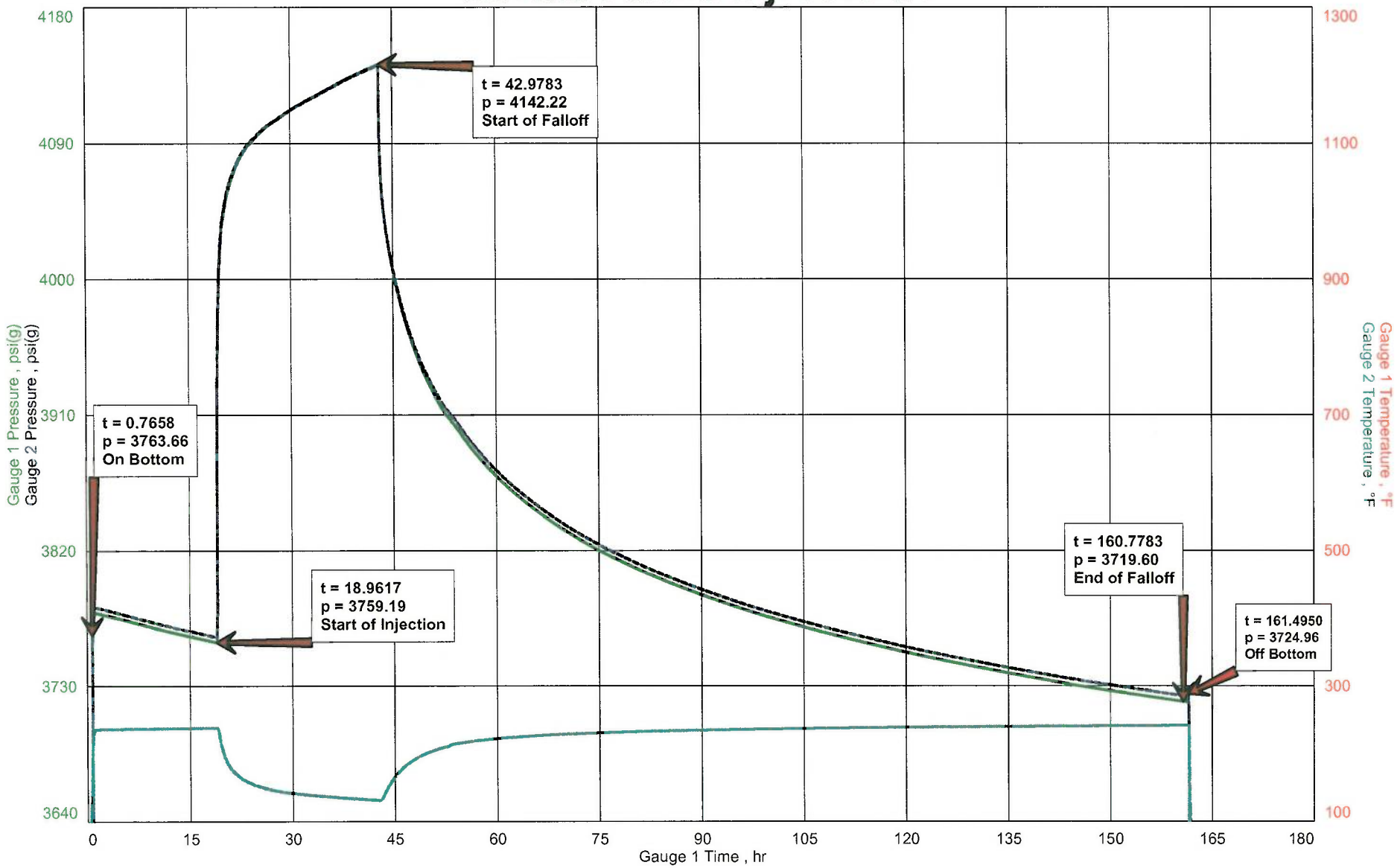
REMARKS:

THIS REPORT HAS BEEN PREPARED FOR YOU BY, ALEAH WILLIAMS.
IF YOU HAVE ANY QUESTIONS OR COMMENTS PLEASE CONTACT MYSELF AT {970}785-2670. THANK YOU.

KP Kaufmann
SE NW 10-1N-67W
Start Test Date: 2003/02/03
Final Test Date: 2003/02/10

Suckla Farms Inj. Well #1
Formation: Lyons
Pool: Lyons
Job Number: N/A

Suckla Farms Inj. Well #1

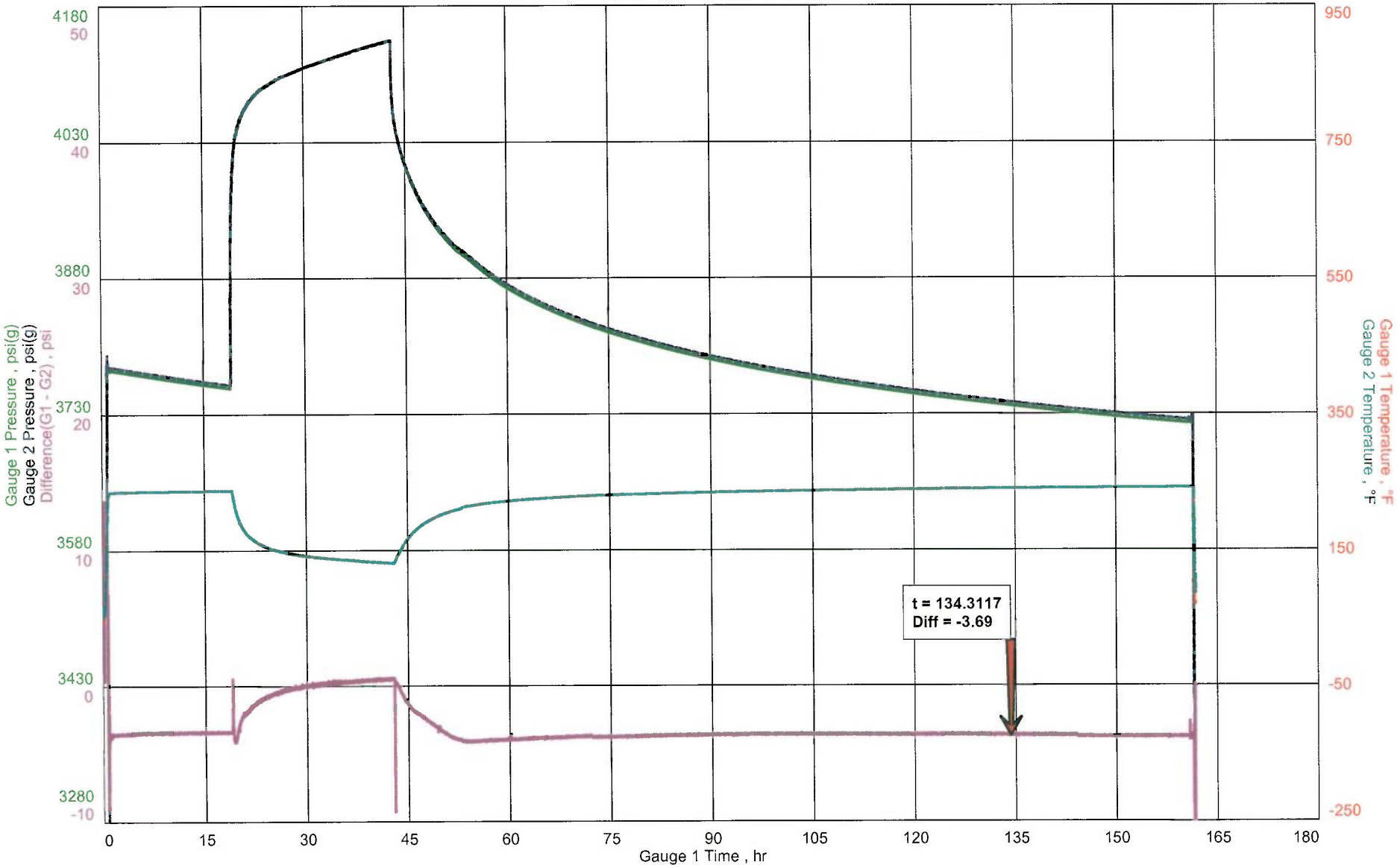


LONKAR SERVICES LTD

KP Kaufmann
SE NW 10-1N-67W
Start Test Date: 2003/02/03
Final Test Date: 2003/02/10

Suckla Farms Inj. Well #1
Formation: Lyons
Pool: Lyons
Job Number: N/A

Difference Plot



LONKAR SERVICES LTD

Calibration Certificate No: 5077

Model: Well Watchers High Temp.
Software Version: N/A
Maximum Pressure Rating: 5000 PSI
Maximum Temperature Rating: 302 F
Calibration Date: September 24, 2001

Specifications

Calibration Pressure Range:	Minimum: 20.0 PSI	Maximum:	5000 PSI
Calibration Temperature Range:	Minimum: 32 F	Maximum:	302 F
Pressure:	Accuracy: ± 0.05%		± 2.50 PSI
Temperature:	Accuracy: ± 0.25%		± 0.755 F

Calibration Summary

Pressure Accuracy (Maximum Error):	± 1.64 PSI
Temperature Accuracy (Maximum Error):	± 0.43 F

Working Standard

- Pressure: Quartzdyne – Model QS10K-S - S/N 150131
- Temperature: Sun Systems Environmental Chamber

Transfer Standard

- Pressure: Chandler Engineering Hydraulic Deadweight - Model 58-001K-T-1 - S/N 25052 – 0 to 15000 PSI Mass Set - .05% Accuracy
- Temperature: Hart Scientific Platinum Resistance Thermometer – Model 5614 – S/N 496051 with an accuracy of ± 0.006°C (± 0.011 F)

LONKAR SERVICES LTD.

Traceability Statement

All working standards are traceable to nationally or internationally recognized standards.

- Chandler Engineering Hydraulic Deadweight – Pressure standards referenced to NIST (File TN822-256610-96, TN838-256609-96, P-8523)
- Chandler Engineering Hydraulic Deadweight – Alberta Energy and Utilities Board Annual Deadweight Gauge Calibration - Transfer Standard S/N 4079-85 – Traceable to the Institute for National Measurement Standards (INMS) of the National Research Council of Canada (NRC). INMS Report MS312, INMS Lab Order Number 85134.
- Platinum Resistance Thermometer (PRT) Model 5614, S/N 496051 was calibrated at the ice point and / or by comparison to Standard Platinum Resistance Thermometers (SPRTs). These SPRTs are calibrated to the International Temperature Scale of 1990 (ITS-90) and their calibration is traceable to the National Institute of Standards and Technology (NIST)

Calibration Preformed By

Approved By

This Certificate shall not be reproduced, without the written approval of the laboratory.

8080 Edgar Industrial Crescent
Red Deer, Alberta
Canada T4P 3R3

Lonkar Sevices Ltd

Tel: (403) 347-9727
Fax: (403) 309-9219

Calibration Certificate No: 5099

Model: Well Watchers High Temp.
Software Version: N/A
Maximum Pressure Rating: 5000 PSI
Maximum Temperature Rating: 302 F
Calibration Date: September 24, 2001

Specifications

Calibration Pressure Range:	Minimum: 20 PSI	Maximum:	5000 PSI
Calibration Temperature Range:	Minimum: 32 F	Maximum:	302 F
Pressure:	Accuracy: ± 0.05%		± 2.50 PSI
Temperature:	Accuracy: ± 0.25%		± 0.755 F

Calibration Summary

Pressure Accuracy (Maximum Error):	± 1.70 PSI
Temperature Accuracy (Maximum Error):	± 0.23 F

Working Standard

- Pressure: Quartzdyne – Model QS10K-S - S/N 150131
- Temperature: Sun Systems Environmental Chamber

Transfer Standard

- Pressure: Chandler Engineering Hydraulic Deadweight - Model 58-001K-T-1 - S/N 25052 – 0 to 15000 PSI Mass Set - .05% Accuracy
- Temperature: Hart Scientific Platinum Resistance Thermometer – Model 5614 – S/N 496051 with an accuracy of ± 0.006°C (± 0.011 F)

LONKAR SERVICES LTD.

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