STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM

FORM OGC-3I

INJECTION WELL PERMIT APPLICATION
(TO DRILL, DEEPEN, PLUG BACK, OR CONVERT AN EXISTING WELL)

NOTE Permit approval **for drilling only, not injection**. Approval or denial for injection determined after Mechanical Integrity Test results reviewed and official notification given.

☒ APPLICATION TO DRILL ☐ DEEPEN ☐ PLUG BACK ☐ FOR AN OIL WELL ☐ OR GAS WELL

NAME OF COMPANY OR OPERATOR		DATE	
OSBORN ENERGY, LLC		11/15/2006	
ADDRESS	**CITY**	**STATE**	**ZIP CODE**
24850 FARLEY	BUCYRUS	KS	66013

DESCRIPTION OF WELL AND LEASE

NAME OF LEASE	WELL NUMBER	ELEVATION (GROUND
OSBORN	I41-17	990

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)

2310 ft. from ☒ North ☐ South section line 520 ft. from ☒ East ☐ West section line

WELL LOCATION	LATITUDE LONGITUDE	COUNTY
Sec. 17 Township 43 North, Range 33 ☐ East ☒ West		CASS

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE 330 FEET

DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED – FOR WELL ON THE SAME LEASE 233 FEET

PROPOSED DEPTH	ROTARY OR CABLE TOOLS	DRILLING CONTRACTOR, NAME AND ADDRESS	APPROX. DATE WORK WILL START
543'	ROTARY	OSBORN ENERGY, LLC	12/1/2006

NUMBER OF ACRES IN LEASE: 4000

NUMBER OF WELLS ON LEASE INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR 23

NUMBER OF ABANDONED WELLS ON LEASE 11

IF LEASE PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED?

NAME DEAN SHIDELER

ADDRESS

NO. OF WELLS: PRODUCING 3; INJECTION 0; INACTIVE 9; ABANDONED 11

STATUS OF BOND	☐ SINGLE WELL AMOUNT $	☒ BLANKET BOND AMOUNT $ 34000.00	☒ ON FILE ☐ ATTACHED

REMARKS: (IF THIS IS AN APPLICATION TO DEEPEN OR PLUG BACK, BRIEFLY DESCRIBE WORK TO BE DONE, GIVING PRESENT PRODUCING/INJECTION ZONE AND EXPECTED NEW INJECTION ZONE; USE BACK OF FORM IF NEEDED)

PROPOSED CASING PROGRAM				APPROVED CASING – TO BE FILLED IN BY STATE GEOLOGIST			
AMOUNT	SIZE	WT/FT	CEM.	AMOUNT	SIZE	WT/FT	CEM.
20'	7"	17#	PORTLAND				
600'	2 7/8"	6 1/2#	PORTLAND				

I, the Undersigned, state that I am the AGENT of the OELLC (Company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct, and complete to the best of my knowledge.

SIGNATURE DATE

PERMIT NUMBER 20783

APPROVED DATE 1-3-2007

APPROVED BY

1-5-07 800psi target

9:02 Gary W on site

☒ DRILLER'S LOG REQUIRED
☒ CORE ANALYSIS REQUIRED IF RUN
☐ SAMPLES REQUIRED
☐ SAMPLES NOT REQUIRED
☐ WATER SAMPLES REQUIRED AT

☒ E-LOGS REQUIRED IF RUN
☒ DRILL SYSTEM TEST INFO REQUIRED IF RUN

NOTE υ	THIS PERMIT NOT TRANSFERABLE TO ANY OTHER PERSON OR TO ANY OTHER LOCATION. APPROVAL OF THIS PERMIT BY THE OIL AND GAS COUNCIL DOES NOT CONSTITUTE ENDORSEMENT OF THE GEOLOGIC MERITS OF THE PROPOSED WELL NOR ENDORSEMENT OF THE QUALIFICATIONS OF THE PERMITTEE

MO 780-0212 (6-06) REMIT TWO (2) COPIES TO: GEOLOGICAL SURVEY PROGRAM, PO BOX 250, ROLLA, MO 65402 573/ 368-2143.
ONE (1) COPY WILL BE RETURNED.

I, AGENT of the OELLC (Company), confirm that an approved drilling permit has been obtained by the owner of this well. Council approval of this permit will be shown on this form by presence of a permit number and signature of authorized council representative.

DRILLER'S SIGNATURE	DATE

PROPOSED OPERATIONS DATA

PROPOSED AVERAGE DAILY INJECTION,	PRESSURE 400 PSIG, RATE 25 BPD/GPM, VOLUME 300 BBL/GAL
APPROVED AVERAGE DAILY INJECTION, (TO BE FILLED IN BY STATE GEOLOGIST)	PRESSURE 400 PSIG, RATE 25 BPD/GPM, VOLUME 300 BBL/GAL
PROPOSED MAXIMUM DAILY INJECTION,	PRESSURE 600 PSIG, RATE 50 BPD/GPM, VOLUME 1000 BBL/GAL
APPROVED MAXIMUM DAILY INJECTION, (TO BE FILLED IN BY STATE GEOLOGIST)	PRESSURE 600 PSIG, RATE 50 BPD/GPM, VOLUME 1000 BBL/GAL

ESTIMATED FRACTURE PRESSURE GRADIENT OF INJECTION ZONE 850 PSI/FOOT

DESCRIBE THE SOURCE OF THE INJECTION FLUID PRODUCED WATER

NOTE υ	SUBMIT AN APPROPRIATE ANALYSIS OF THE INJECTION FLUID. (SUBMIT ON SEPARATE SHEET)

DESCRIBE THE COMPATIBILITY OF THE PROPOSED INJECTION FLUID WITH THAT OF THE RECEIVING FORMATIONS, INCLUDIUNG TOTAL DISSOLVED SOLIDS COMPARISONS

Same

GIVE AN ACCURATE DESCRIPTION OF THE INJECTION ZONE INCLUDING LITHOLOGIC DESCRIPTIONS, GEOLOGIC NAME, THICKNESS, DEPTH, POROSITY, AND PERMEABILITY.

See driller's log and gamma ray

GIVE AN ACCURATE DESCRIPTION OF THE CONFINING ZONES INCLUDING LITHOLOGIC DESCRIPTION, GEOLOGIC NAME, THICKNESS, DEPTH, POROSITY, AND PERMEABILITY.

See driller's log and gamma ray

SUBMIT ALL AVAILABLE LOGGING AND TESTING DATA ON THE WELL

STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM

FORM OGC-41

INJECTION WELL LOCATION PLAT

OWNER'S NAME

OSBORN ENERGY, LLC

LEASE NAME

OSBORN # I 41-17

COUNTY

CASS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)

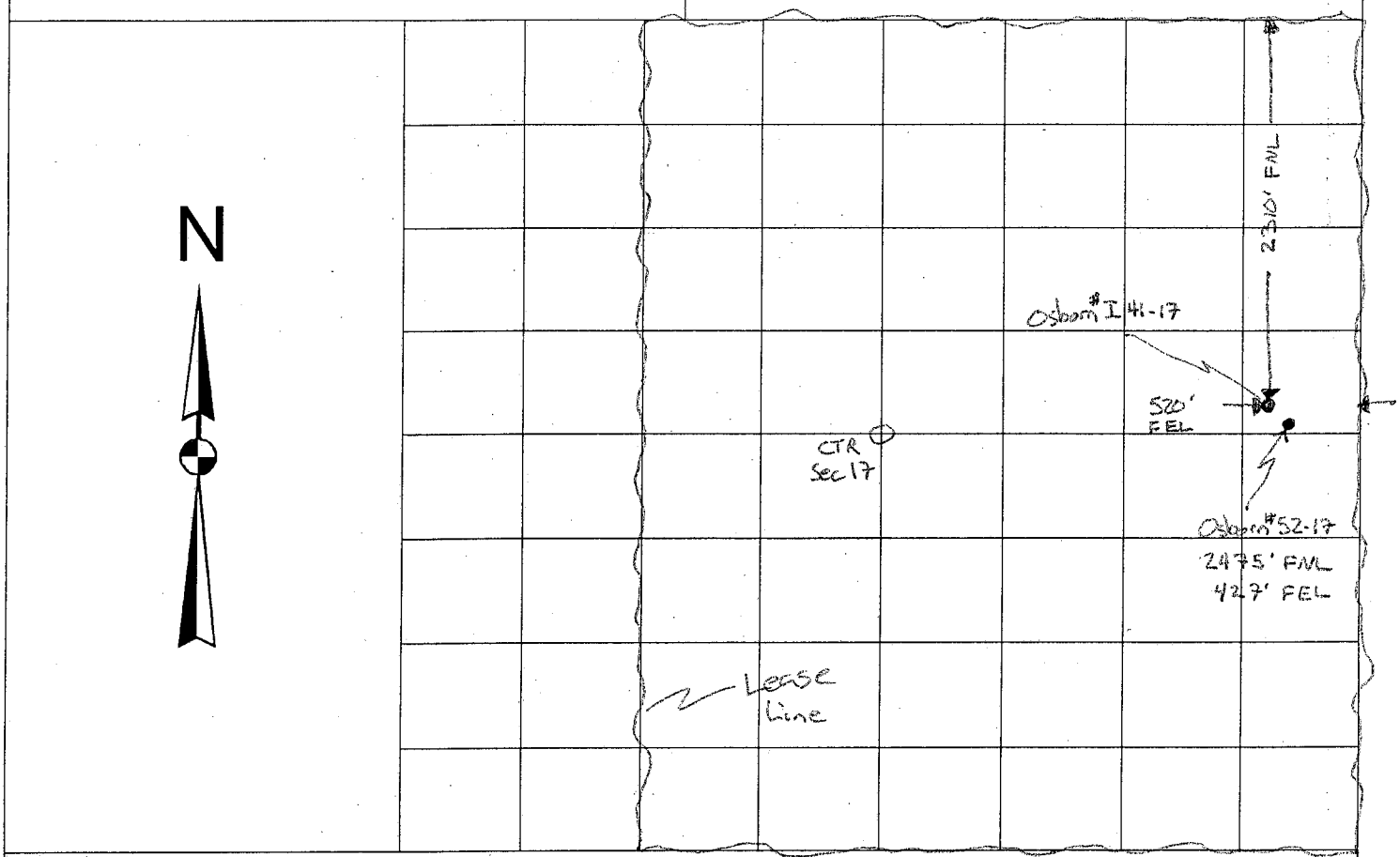
2310 ft. from ☒ North ☐ South section line 520 ft. from ☒ East ☐ West section line

WELL LOCATION

Sec. 17 Township 43 North Range 33 ☐ East ☒ West

LATITUDE

LONGITUDE



REMARKS

INSTRUCTIONS

On the above plat, show distance of the proposed well from the two nearest section lines, the nearest lease line, and from the nearest well on the same lease completed in or drilling to the same reservoir. Do not confuse survey lines with lease lines. See rule 10 CSR 50-2.030 for survey requirements. Lease lines must be marked.

This is to certify that I have executed a survey to accurately locate oil and gas wells in accordance with 10 CSR 50-2.030 and that the results are correctly shown on the above plat.

RECEIVED

JAN 09 2007

Mo Oil & Gas Council

REGISTERED LAND SURVEY NUMBER

MO 780-1136 (09-01)

REMIT TWO (2) COPIES TO: MISSOURI OIL AND GAS COUNCIL, PO BOX 250, ROLLA, MO 65402 573/ 368-2165.

RECEIVED

JAN 19 2007

Mo Oil & Gas Council

AFFIDAVIT OF PUBLICATION

(Space above for re

STATE OF MISSOURI
COUNTY OF CASS ss.

I, Sandy M. Nelson, being duly sworn according to law, state that I am the Publisher of the Cass County Democrat-Missourian, a weekly newspaper of general circulation in the County of Cass, State of Missouri, where located; which newspaper has been admitted to the Post Office as periodical class matter in the City of Harrisonville, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a list of bonafide subscribers, voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that such newspaper has complied with the provisions of Section 493.050, Revised Statutes of Missouri 2000, and Section 59.310, Revised Statutes of Missouri 2000. The affixed notice appeared in said newspaper in the following consecutive issues:

1st Insertion: Vol. 27 No. 11, 5 day of Jan. 2007.

2nd Insertion: Vol. _____ No. _____, _____ day of _____ 20____.

3rd Insertion: Vol. _____ No. _____, _____ day of _____ 20____.

4th Insertion: Vol. _____ No. _____, _____ day of _____ 20____.

5th Insertion: Vol. _____ No. _____, _____ day of _____ 20____.

Sandy M. Nelson, Publisher

Subscribed and sworn to before me on this 5 day of Jan., 2007.

Dora E. Nation

DORA E. NATION
Notary Public-Notary Seal
State of Missouri, Cass County
Commission # 05460477
My Commission Expires May 5, 2009

PUBLIC NOTICE

Osborn Energy, LLC (24850 Farley, Bucyrus, KS 66013) has applied for a salt water disposal/injection wells to be drilled to an approximate depth of 543 feet, at the following locations in Township 43N and Range 33W in Cass County, Missouri:

2310 feet from North line and 140 feet from West line of Section 16,

2310 feet from North line and 190 feet from East line of Section 17,

2310 feet from North line and 520 feet from East line of Section 17,

Written comments or requests for additional information regarding such wells should be directed, within fifteen (15) days of this notice, to: State Geologist, Missouri Oil & Gas Council, P.O. Box 250, Rolla, MO 65402.

11-1tc

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JAN 10 2011

FORM OGC-5

STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

Mo Oil & Gas Council

☐ NEW WELL ☐ WORKOVER ☐ DEEPEN ☐ PLUG BACK ☒ INJECTION ☐ SAME RESERVOIR ☐ DIFFERENT RESERVOIR ☐ OIL ☐ GAS ☐ DRY

OWNER	ADDRESS
OSBORN ENERGY, LLC	24850 FARLEY BUCYRUS, KS 66013
LEASE NAME	**WELL NUMBER**
Osborn	I 41-17

LOCATION OF WELL SEC TWN RNG OR BLOCK AND SURVEY	LATITUDE	LONGITUDE
Sec. 17 Township 43 North, Range 33 ☐East ☒West 2310 ft. from ☒North ☐South 520 ft. from ☒East ☐West		

COUNTY	PERMIT NUMBER (OGC-3 OR OGC-31)
Cass	20783

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED READY TO PRODUCE OR INJECT	ELEVATION (DF, RKR, RT, OR Gr.) FEET	ELEVATION OF CASING HD. FLANGE FEET
12/19/2006	12/21/2006	1/10/2007	990	

TOTAL DEPTH	PLUG BACK TOTAL DEPTH
543	

PRODUCING OR INJECTION INTERVAL(S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL) ____TO____ DRILLING FLUID USED air	CABLE TOOLS USED (INTERVAL)
455-464		

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	

TYPE OF ELECTRICAL OR OTHER LOGS RUN (JUST LOGS FILED WITH THE STATE GEOLOGIST)	DATE FILED
Gamma Ray Neutron	1/10/2010

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL – CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB. FT)	DEPTH SET	SACKS CEMENT	AMOUNT PULLED
surface	9 7/8"	7"		21.70	2	
Production	6 1/2"	2 7/8"		521.13	90	

TUBING RECORD

SIZE	DEPTH SET	PACKER SET AT	SIZE
INCH	FEET	FEET	INCH

LINER RECORD

TOP	BOTTOM	SACKS CEMENT	SCREEN
FEET	FEET		FEET

PERFORATION RECORD

NUMBER PER FEET	SIZE AND TYPE	DEPTH INTERVAL
2	2" dml rtg	455-464

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMOUNT AND KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE OF FIRST PRODUCTION OR INJECTION	PRODUCING METHOD (INDICATE IF FLOWING, GAS LIFT, OR PUMPING – IF PUMPING, SHOW SIZE AND TYPE OF PUMP.)

DATE OF TEST	HOURS TESTED	CHOKE SIZE	OIL PRODUCED DURING TEST BBLS	GAS PRODUCED DURING TEST MCF	WATER PRODUCED DURING TEST BBLS	OIL GRAVITY API (CORR.)

TUBING PRESSURE	CASING PRESSURE	CALCULATED RATE OF PRODUCTION PER 24 HOURS	OIL BBLS	GAS MCF	WATER BBLS	GAS OIL RATIO

DISPOSITION OF GAS (STATE WHETHER VENTED, USED FOR FUEL OR SOLD)

METHOD OF DISPOSAL OF MUD PIT CONTENTS

CERTIFICATE: I, the Undersigned, state that I am the agent of the OELLC (Company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

DATE	SIGNATURE
1-10-11	Cursen Hawken

MO 780-0215 (09-01) (REV 9-01)

INSTRUCTIONS: Attach drillers log or other acceptable log of well.

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION (SEE * ABOVE)
			Drillers log is attached

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Driller Log

Lease Name: OSBORN Well#: I 41-17 Spud: 12-19-06

Thickness	Formation	Depth	Comments
20	Surface	20	
	Shale		
	Lime		
	Shale		
	Lime		
	Shale		
	Blk slate		
	Shale		
	Lime		
	Shale		
	Lime		
	Shale		
	Lime		
	Shale		
	lime		
	Shale		
	Blk slate		
	Shale		
	Blk slate		
	Shale		
	SS		
	Lime		
	Shale		
	Lime		
	Shale		TD 543' on 12-21-06

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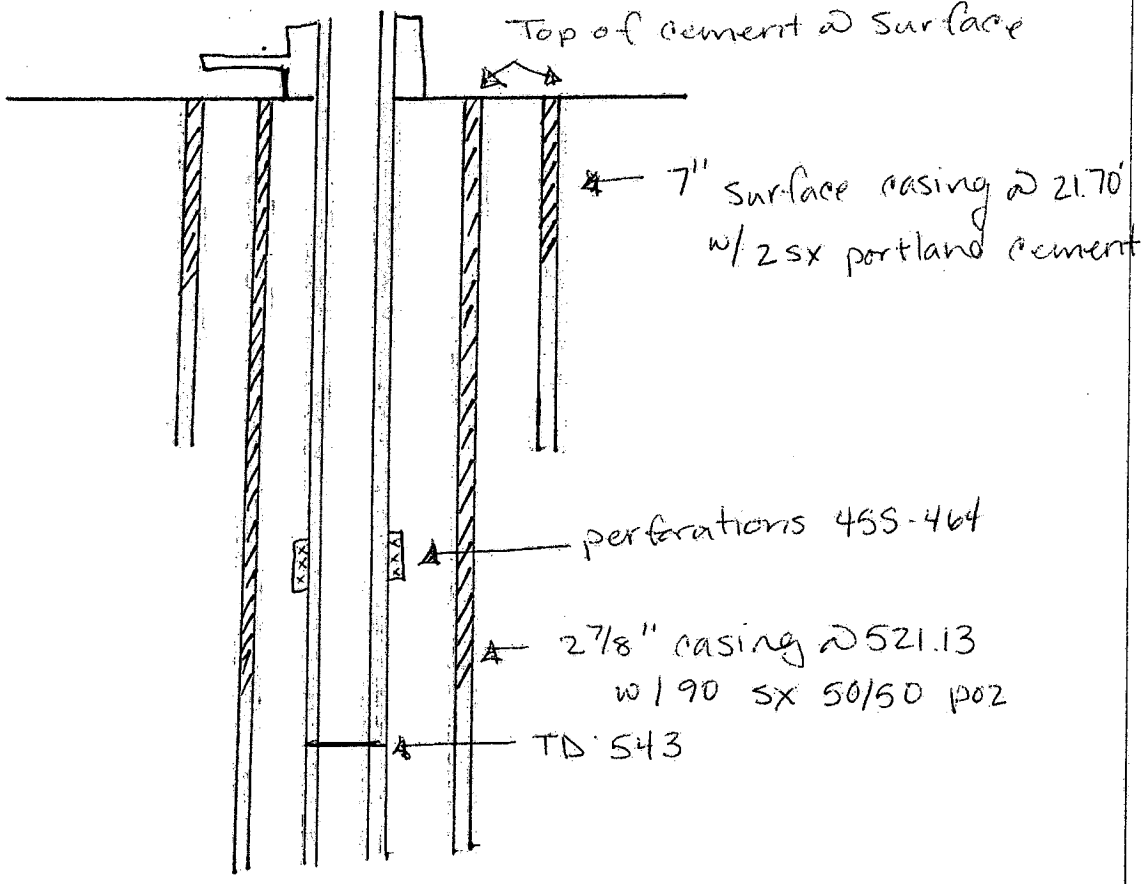
STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM

INJECTION WELL SCHEMATIC

COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
Cass	20783	Osborn Energy	I-41-17



INSTRUCTIONS ON THE ABOVE SPACE DRAW A NEAT, ACCURATE SCHEMATIC DIAGRAM OF THE APPLICANT INJECTION WELL, INCUDING THE FOLLOWING: CONFIGURATION OF WELLHEAD, TOTAL DEPTH OR PLUG BACK TOTAL DEPTH, DEPTH OF ALL INJECTION OR DISPOSAL INTERVALS, AND THEIR FORMATION NAMES, LITHOLOGY OF ALL FORMATIONS PENETRATED, DEPTHS OF THE TOPS AND BOTTOMS OF ALL CASING AND TUBING, SIZE AND GRADE OF ALL CASING AND TUBING, AND THE TYPE AND DEPTH OF PACKER, DEPTH, LOCATION, AND TYPE OF ALL CEMENT, DEPTH OF ALL PERFORATIONS AND SQUEEZE JOBS, AND GEOLOGIC NAME AND DEPTH TO BOTTOM OF ALL UNDERGROUND SOURCES OF DRINKING WATER WHICH MAY BE AFFECTED BY THE INJECTION. USE BACK IF ADDITIONAL SPACE IS NEEDED, OR ATTACH SHEET.

Driller Log

Lease Name: OSBORN Well#: I 41-17 Spud: 12-19-06

Thickness	Formation	Depth	Comments
20	Surface	20	
	Shale		
	Lime		
	Shale		
	Lime		
	Shale		
	Blk slate		
	Shale		
	Lime		
	Shale		
	Lime		
	Shale		
	Lime		
	Shale		
	lime		
	Shale		
	Blk slate		
	Shale		
	Blk slate		
	Shale		
	SS		
	Lime		
	Shale		
	Lime		
	Shale		TD 543' on 12-21-06

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Mo Oil & Gas Council

CASING MECHANICAL INTEGRITY TEST

Disposal: [ ] Enhanced Recovery:
New Well Repressuring: [X]
Flood: [ ]
Tertiary: [ ]
Date injection started:
PERMIT# 20783

NE/4 Sec **17** T **43N** R **33** W
2310 Feet from North Section Line
520 Feet from East Section Line
Lease **Osborn** **Well I-41-17**
County Cass

Operator Name & Address
Osborn Energy, LLC
24850 Farley
Bucyrus, Kansas 66013

Operator License # 32294
Contact Person Meredith Pearce
Phone # 913-533-9900

Max. Auth. Injection Press. 400 psi.; Max. Inj. Rate 25 bbl/d;
If Dual Completion - Injection above production: ____ Injection below production: ____

	Conductor	*Surface*	*Production*	*Liner*	
Size		7"	2 7/8"		Size:
Set at		20'	525'		Set at:
Cement Top		0	0		Type:
" Bottom		20'	525'		

DV/Perf. ____ TD (& plug back): ____ ft. depth
Packer Type ____ Size ____ Set At: ____ ft.
Zone of Injection ____ ft. to ____ ft. Perforate or Open Hole ____

Type MIT: Pressure: [X] Radioactive Tracer Survey: [ ] Temperature Survey: [ ]

FIELD DATA

Time: Start 9:10 10 min. 20 min. 30 min.

Pressures:

10:10	800 #	800#	800#	Set up 1
				Set up 2
				Set up 3

System Pres. During Test: ____
Annular Pres. During Test: ____
Fluid Loss During Test: ____ bbls.

Tested: Casing: [X] Casing Tubing Annulus: [ ]

The bottom of the tested zone is shut in with pressure test

Test Date: 1-5-07 Using Midwest Surveys, Inc. Company Equipment

The Operator hereby certifies that the zone between 0 ft. and 525 ft.
was the zone tested

Ray Landrock
Signature

Contractor
Title

The results were Satisfactory X ***Marginal*** ____ ***Not Satisfactory*** ____

State Agent Jeff Jaquess **Title** Geologist **Witness:** **Yes** X **No** ____

Remarks: Pressure up to 800#, Well not perforated yet.

[ ] Origin. Conservation Div.: [ ] District Office
[ ] Computer Update

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (½ mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUDDED	DATE COMPLETED	CONSTRUCTION	Status
Shideler Farm	29-A	1835 FROM (N)(S) SEC. LINE 1237 FROM (E)(W) SEC. LINE SEC. 16 T. 43 N.R. 33	Dean Shideler	475	I	5/13/1996	5/23/1996	2 7/8" @ 411'	(PA)
" "	25-A	2365 FROM (N)(S) SEC. LINE 636 FROM (E)(W) SEC. LINE SEC. 16 T. 43 N.R. 33	" "	490	I	9/25/1995	10/5/1995	2 7/8" @ 474'	(PA)
Shideler Farm	7-A	175 FROM (N)(S) SEC. LINE 1155 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	524	II	Apr '91	Dry, Not Completed	None	(PA)
" "	12-A	2610 FROM (N)(S) SEC. LINE 1800 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	495	I	8/17/1992	9/4/1992	2 7/8" @ 363'	(PA)
" "	13-A	2400 FROM (N)(S) SEC. LINE 375 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	476	I	8/21/1992	9/4/1992	2 7/8" @ 469'	(PA)
" "	14-A	2570 FROM (N)(S) SEC. LINE 450 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	491	I	June 1993	Dry, Not Completed	2 7/8" @ 342'	(PA)
" "	15-A	2470 FROM (N)(S) SEC. LINE 48 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	496	I	9/4/1993	9/11/1993	2 7/8" @ 474'	(PA)
" "	16-A	2180 FROM (N)(S) SEC. LINE 200 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 43	" "	496	I	9/11/1993	9/20/1993	2 7/8" @ 473'	(PA)
" "	17-A	2100 FROM (N)(S) SEC. LINE 525 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	494	I	6/3/1994	6/29/1994	2 7/8" @ 483'	(PA)

MO 780-1136 (9-01)

RECEIVED
JAN 09 2007
KCC Oil & Gas Council

AREA OF REVIEW WELLS (1/2 MILE RADIUS AROUND WELL) THAT PENETRATE THE INJECTION INTERVAL

INSTRUCTIONS

In the grid below, place the descriptions of area of review wells (½ mile radius around well) of public record that penetrate the proposed injection zone. Complete the following: lease name, well number, location, owner, depth in feet, type of well (Oil = O, Gas = G, Water = W, Injection = I, Strat Test = S, Unknown = U, Other - specify), date spudded, date completed, and construction of the well. Give a brief but accurate description of the well's construction including all plugging and/or completion of information, detailing the cement, casing, and subsurface casing information.

LEASE	WELL NO.	LOCATION	OWNER	DEPTH	TYPE	DATE SPUDDED	DATE COMPLETED	CONSTRUCTION	Status
Shideler Farm	18-A	2570 FROM (N)(S) SEC. LINE 850 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	Dean Shideler	493	11	May 1994	Dry, Not completed	None	PA
" "	19-A	1835 FROM (N)(S) SEC. LINE 350 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	502	1	8/15/1994	9/22/1994	2 7/8" @ 495'	PA
" "	21-A	1180 FROM (N)(S) SEC. LINE 800 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	505	2	10/8/1994	10/14/1994	2 7/8" @ 441'	PA
" "	22-A	1020 FROM (N)(S) SEC. LINE 860 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	377	2	12/14/1994	12/21/1994	2 7/8" @ 368'	PA
" "	23-A	600 FROM (N)(S) SEC. LINE 1380 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	377	2	3/9/1995	3/15/1995	2 7/8" @ 372'	PA
" "	26-A	700 FROM (N)(S) SEC. LINE 2275 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	517	2	12/10/1995	12/15/1995	2 7/8" @ 376'	PA
" "	27-A	689 FROM (N)(S) SEC. LINE 700 FROM (E)(W) SEC. LINE SEC. 17 T. 43 N.R. 33	" "	354	1	3/6/1996	3/12/1996	2 7/8" @ 339'	PA
	[redacted]	_____ FROM (N)(S) SEC. LINE _____ FROM (E)(W) SEC. LINE SEC. _____ T. _____ N.R. _____							
		_____ FROM (N)(S) SEC. LINE _____ FROM (E)(W) SEC. LINE SEC. _____ T. _____ N.R. _____							

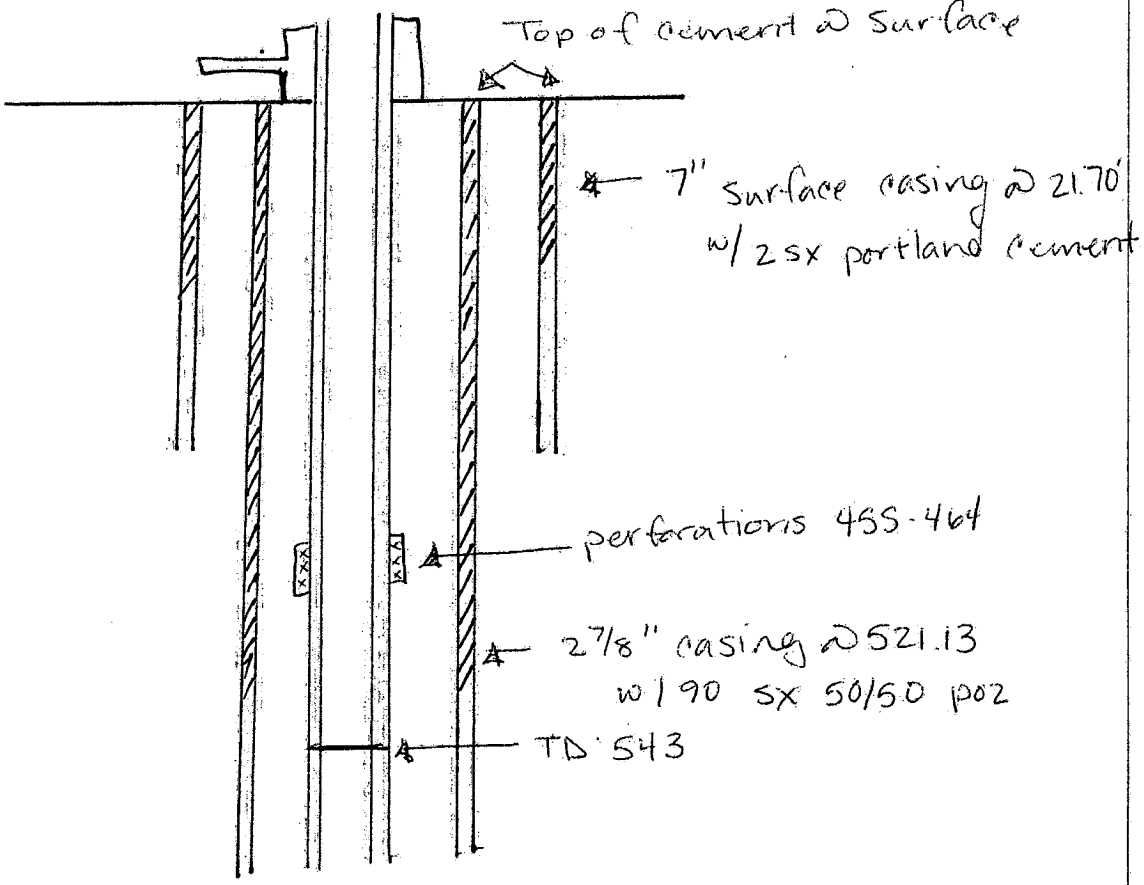
MO 780-1136 (9-01)

STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY PROGRAM

INJECTION WELL SCHEMATIC

OGC-11

COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
Cass	20783	Osborn Energy	I-41-17



INSTRUCTIONS ON THE ABOVE SPACE DRAW A NEAT, ACCURATE SCHEMATIC DIAGRAM OF THE APPLICANT INJECTION WELL, INCUDING THE FOLLOWING: CONFIGURATION OF WELLHEAD, TOTAL DEPTH OR PLUG BACK TOTAL DEPTH, DEPTH OF ALL INJECTION OR DISPOSAL INTERVALS, AND THEIR FORMATION NAMES, LITHOLOGY OF ALL FORMATIONS PENETRATED, DEPTHS OF THE TOPS AND BOTTOMS OF ALL CASING AND TUBING, SIZE AND GRADE OF ALL CASING AND TUBING, AND THE TYPE AND DEPTH OF PACKER, DEPTH, LOCATION, AND TYPE OF ALL CEMENT, DEPTH OF ALL PERFORATIONS AND SQUEEZE JOBS, AND GEOLOGIC NAME AND DEPTH TO BOTTOM OF ALL UNDERGROUND SOURCES OF DRINKING WATER WHICH MAY BE AFFECTED BY THE INJECTION. USE BACK IF ADDITIONAL SPACE IS NEEDED, OR ATTACH SHEET.

MIDWEST SURVEYS

LOGGING - PERFORATING - CONSULTING SERVICES
P.O. Box 68, Osawatomie, KS 66064
913 / 755 - 2128

GAMMA RAY / NEUTRON / CCL

File No.

Permit #

Company Osborn Energy, LLC
Well Osborn No. I-41-17
Field
County Cass State Missouri

Location 2310' FNL & 520' FEL NE/4
Sec. 17 Twp. 43n Rge. 33w

Other Services

Permanent Datum GL Elevation NA
Log Measured From GL
Drilling Measured From GL

Elevation
K.B. NA
D.F. NA
G.L. NA

Date	12-27-2006										
Run Number	One										
Depth Driller	543.0										
Depth Logger	523.3										
Bottom Logged Interval	521.3										
Top Log Interval	20.0										
Fluid Level	Full										
Type Fluid	Water										
Density / Viscosity	NA										
Salinity - PPM Cl	NA										
Max Recorded Temp	NA										
Estimated Cement Top	0.0										
Equipment No.	Location	104	Osawatomie								
Recorded By	Steve Windisch										
Witnessed By	Meredith Pearce										

RUN No.	BORE-HOLE RECORD BIT	FROM	TO	CASING RECORD SIZE	WGT.	FROM	TO
One	9.875"	0.0	20.0	7.0 "		0.0	20.0
Two	6.25"	20.0	543.0	2 7/8"		0.0	525.0

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Drilling Contractor :
Osborn Energy LLC

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Database File: osborn41.dlis

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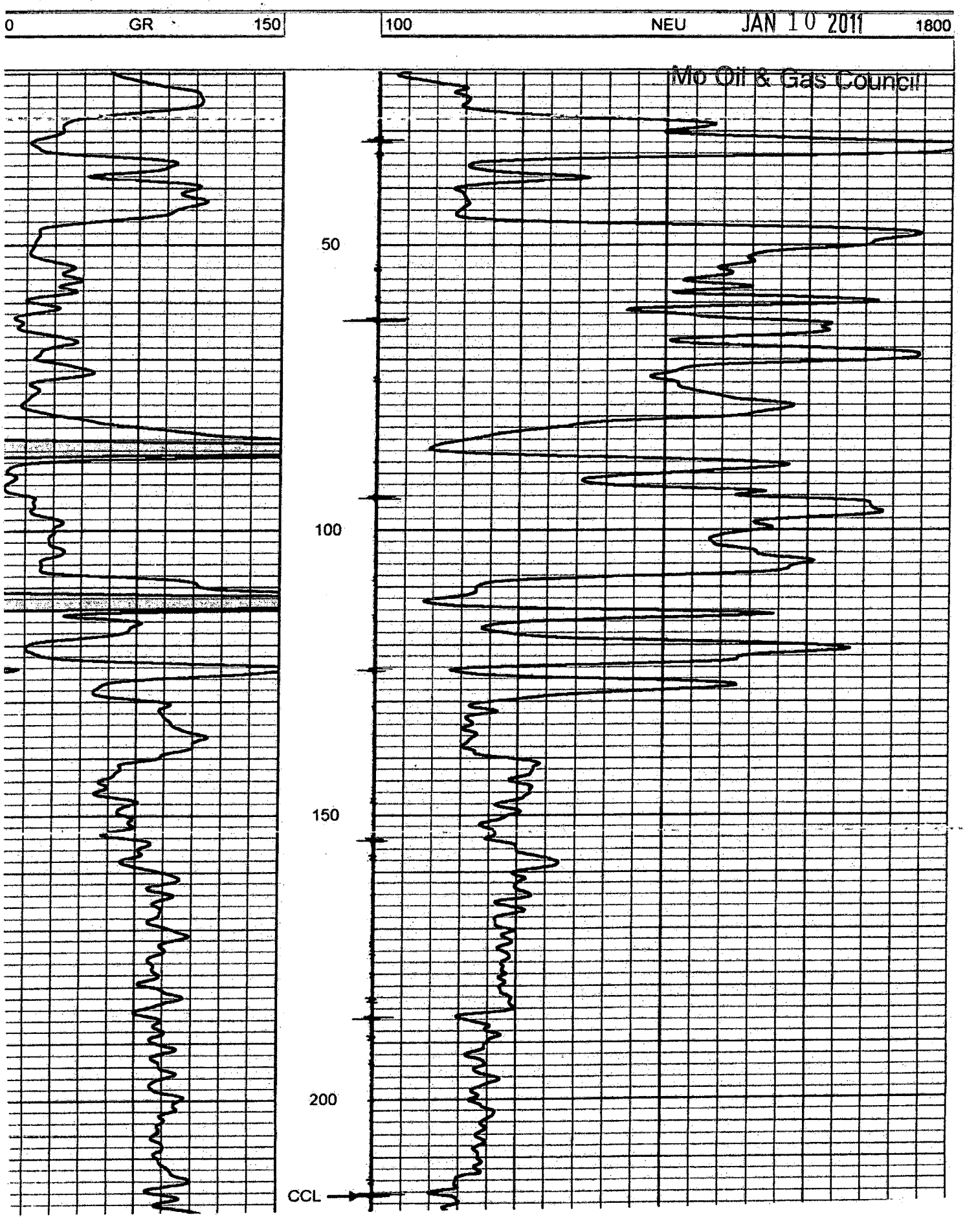
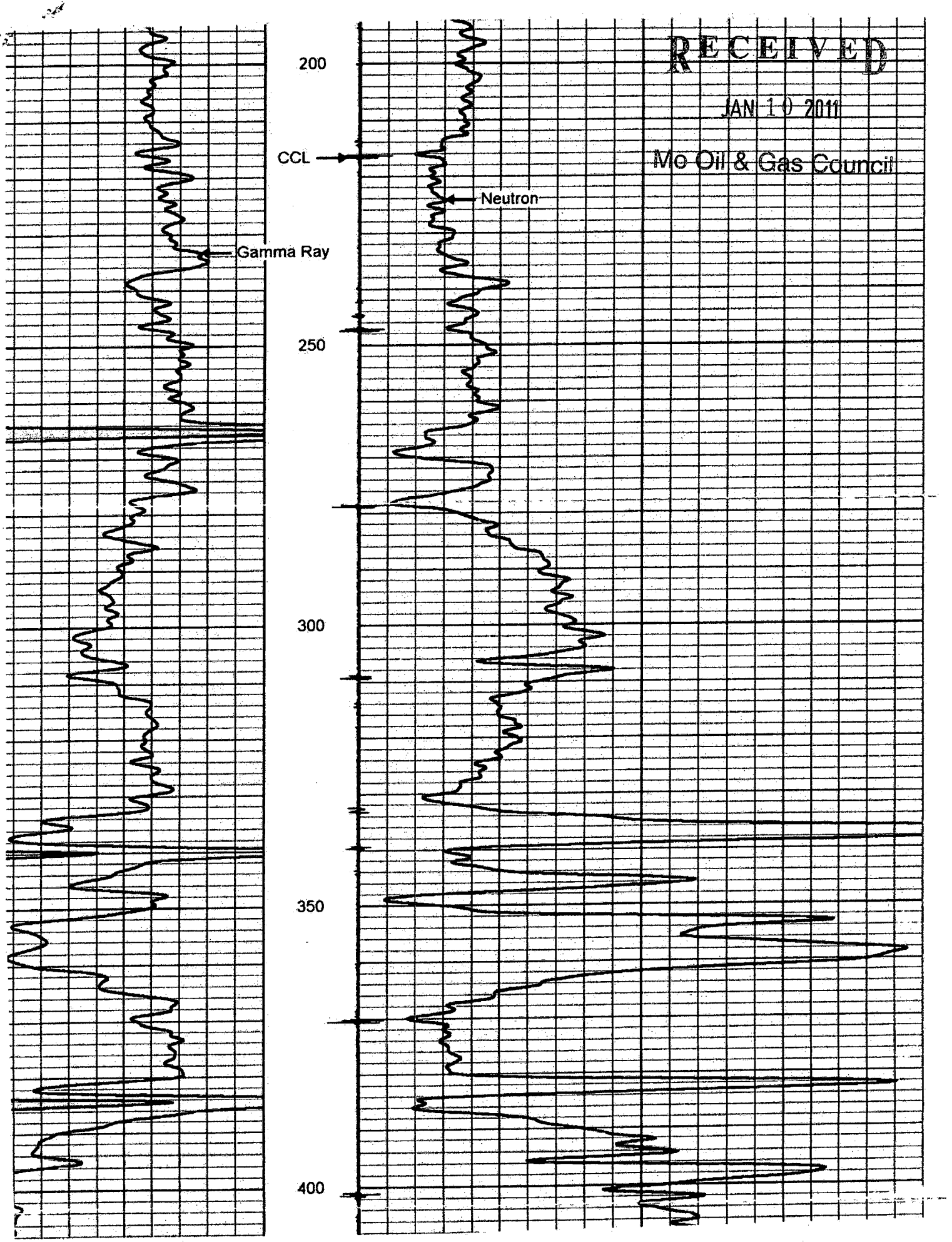
Charted by: Depth in Feet scaled 1:240





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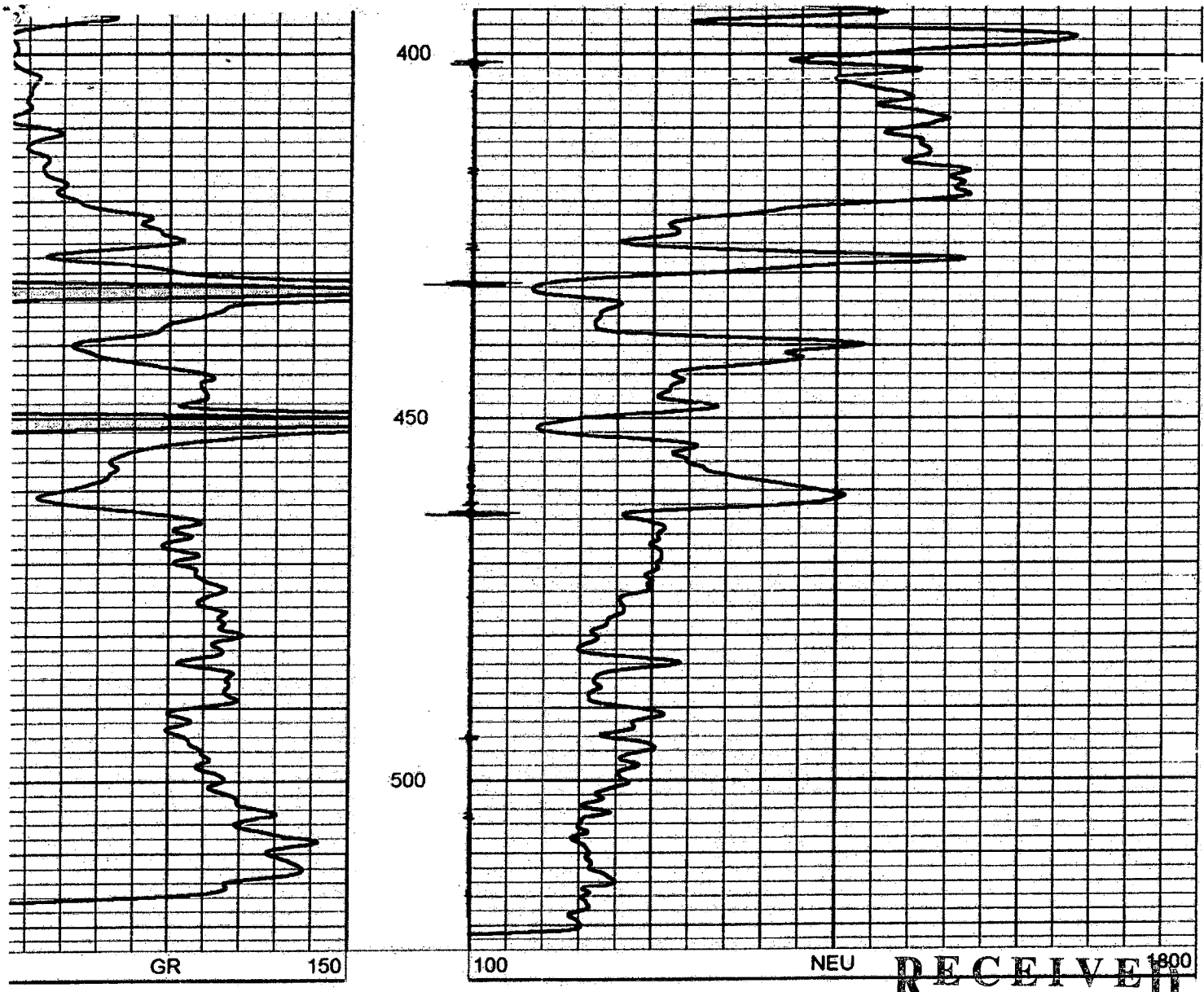

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INJECTION WELL MONITORING REPORT

FORM OGC-12

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INSTRUCTIONS ▶ Record Injection Rate and Injection Pressure at least monthly with the results submitted annually.

COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
Cass	20783	Osborn Energy, L.L.C.	41-17

MONTH	INJECTION RATE – bpd/gpm	INJECTION PRESSURE – psig	DATE MEASUREMENT TAKEN	REMARKS
(01) January	.81	350	Average	
(02) February	.83	350	Average	
(03) March	.81	350	Average	
(04) April	.83	350	Average	
(05) May	.81	350	Average	
(06) June	.83	350	Average	
(07) July	.81	350	Average	
(08) August	.81	350	Average	
(09) September	.83	350	Average	
(10) October	.81	350	Average	
(11) November	.83	350	Average	
(12) December	.81	350	Average	

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COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
Cass	20783	Osborn Energy, L.L.C.	41-17

MONTH	INJECTION RATE – bpd/gpm	INJECTION PRESSURE – psig	DATE MEASUREMENT TAKEN	REMARKS
(01) January				No Injection for 2009
(02) February				
(03) March				
(04) April				
(05) May				
(06) June				
(07) July				
(08) August				
(09) September				
(10) October				
(11) November				
(12) December				

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COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
Cass	20783	Osborn Energy, L.L.C.	41-17

MONTH	INJECTION RATE – bpd/gpm	INJECTION PRESSURE – psig	DATE MEASUREMENT TAKEN	REMARKS
(01) January	.81	350	Average	
(02) February	.89	350	Average	
(03) March	.81	350	Average	
(04) April	.83	350	Average	
(05) May				
(06) June				
(07) July				
(08) August				
(09) September				
(10) October				
(11) November				
(12) December				

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STATE OF MISSOURI
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INSTRUCTIONS ▶ Record Injection Rate and Injection Pressure at least monthly with the results submitted annually.

COUNTY	PERMIT NUMBER	OPERATOR	WELL NUMBER
Cass	20783	Osborn Energy, L.L.C.	41-17 Mo Oil & Gas Council

MONTH	INJECTION RATE – bpd/gpm	INJECTION PRESSURE – psig	DATE MEASUREMENT TAKEN	REMARKS
(01) January	.81	350	Average	
(02) February	.89	350	Average	
(03) March	.81	350	Average	
(04) April	.83	350	Average	
(05) May	.81	350	Average	
(06) June	.83	350	Average	
(07) July	.81	350	Average	
(08) August	.81	350	Average	
(09) September	.83	350	Average	
(10) October	.81	350	Average	
(11) November	.83	350	Average	
(12) December	.81	350	Average	

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