Ohio Department of Natural Resource
Division of Oil and Gas Resources Management
1855 Fountain Square Court, Building H3
Columbus, Ohio 43224
Form 55: Revised 12/97

SR

Casing Ticket

API Well Number:

34-099-2-3171-00-00

Sent to Columbus

DEC 20 2011

Record of Casing, Cementing and Mudding

Well Owner: **2651 D & L ENERGY INC**
Lease Name: **NORTHSTAR COLLINS (SWIW #13) 6** Well No. **6**
County: **MAHONING** Township:
Driller: **UNION DRLG** Tool **Air Rotar**
Refer Top **Kelly Bushing** Lat: **41.091107** Long: **80.547911**

Date Spudded: **11/11/2011**
Date Completed:
Inspector **GRIMM CHRIS**
☐ AD Meets Requirements
☐ AD on Permit

Comments: **U.D.I. rig #46 drilled 17-1/4" conductor hole on air to 80', ran 2 joints of 13-3/8" conductor casing set at 65'. Superior Well Svc. broke circulation with 2 bbl water, pumped 80 sx cement, displaced with 10 bbl water, cement circulated to surface, 4 bbl returns. Pumped 5 sx into cellar. U.D.I rig #46 drilled 12-1/4" surface hole on air to 1160', ran 27 joints 9-5/8" surface casing set at 1121'. Superior Well Svc. broke circulation with 25 bbl water, pumped 500 lbs gel, followed by 430 sx cement, displaced with 83 bbl water, cement circulated to surface, 40 bbl returns. U.D.I. rig #46 drilled 8-3/4" production hole on air to 8438', switched to fluid, drilled remainder of hole to 9836' on fluid. Ran 220 joints 7" production casing to 8428' set on an inflatable packer at 8440'. U.D.I. loaded casing and annulus with fresh water. Superior circulated 200 bbl fresh water to clean hole, released plug to set packer and open dv tool. Broke circulation through dv tool with 5 bbl water, pumped 75 sx cement. Superior could not get pin in cement head to release 2nd plug. Dave Jenkins of D&L Energy instructed Superior to circulate all cement out of hole. U.D.I. #46 circulated hole with mud pump until new cement head and more cement arrived. Superior pumped 40 bbl fresh water spacer, followed by 75 sx cement, released plug, displaced with 322 bbl water. Landed plug, pressured up to 1500 psi to close dv tool. Casing shut in with 500 psi left on. Maintained good circulation throughout job.**

FLD *Hole 1 Field Entry **CONDITION**

Bot 80 **Diam** 17.25 **Top** 0 **LENGTH** **Set Dt** 11/11/2011

String Comments Casing Condition, Weight and Cement Basket Drilled on air

BOC 0 **TOC** 0 ☐ **WITNESSED**

CMT_CON **INSPECTOR** GRIMM CHRIS

CLASS_CMT: **SACKS** **YIELD** **WEIGHT**

Cement 1

CLASS_CMT2: **SACKS2** **YIELD** **WEIGHT**

Cement 2

FLD *Conductor Pipe Field Entry CONDITION New

Bot 65 Diam 13.375 Top 0 LENGTH Set Dt 11/11/2011

String Comments Casing Condition, Weight and Cement Basket: 2 joints, 54#, J-55, range 3, open ended

BOC 65 TOC 0 ☐ WITNESSED

CMT_CON SUPERIOR WELL SERVICES INSPECTOR GRIMM CHRIS

CLASS_CMT: Class A Cement SACKS 85 YIELD 1.18 WEIGHT 15.6

Cement 1: 3% CaCl, 1/2 flake, 4 bbl returns

CLASS_CMT2: SACKS2 YIELD WEIGHT

Cement 2:

FLD *Hole 2 Field Entry CONDITION

Bot 1160 Diam 12.25 Top 0 LENGTH Set Dt 11/13/2011

String Comments Casing Condition, Weight and Cement Basket: Drilled on air

BOC 0 TOC 0 ☐ WITNESSED

CMT_CON INSPECTOR GRIMM CHRIS

CLASS_CMT: SACKS YIELD WEIGHT

Cement 1:

CLASS_CMT2: SACKS2 YIELD WEIGHT

Cement 2:

FLD *Surface Casing Field Entry CONDITION New

Bot 1121 Diam 9.625 Top 0 LENGTH Set Dt 11/13/2011

String Comments Casing Condition, Weight and Cement Basket: 27 joints, 40#, H-80, range 3, open ended, 9 centralizers

BOC 1121 TOC 0 ☑ WITNESSED

CMT_CON SUPERIOR WELL SERVICES INSPECTOR GRIMM CHRIS

CLASS_CMT: Class A Cement SACKS 430 YIELD 1.18 WEIGHT 15.6

Cement 1: 3% CaCl, 1/4 flake, 40 bbl returns

CLASS_CMT2: SACKS2 YIELD WEIGHT

Cement 2:

FLD *Hole 3 Field Entry CONDITION

Bot 9836 Diam 8.75 Top 0 LENGTH Set Dt 12/2/2011

String Comments Casing Condition, Weight and Cement Basket: Drilled on air, switched to fluid at 8438' drilled on fluid to TD

BOC 0 TOC 0 ☐ WITNESSED

CMT_CON INSPECTOR GRIMM CHRIS

CLASS_CMT: SACKS YIELD WEIGHT

Cement 1:

CLASS_CMT2: SACKS2 YIELD WEIGHT

Cement 2:

FLD *Packer Field Entry CONDITION New

Bot 8440 Diam 7 Top 8431 LENGTH Set Dt 12/2/2011

String Comments Casing Condition, Weight and Cement Basket: Blue Dot, 26#, N-80, inflatable

BOC 0 TOC 0 ☐ WITNESSED

CMT_CON INSPECTOR GRIMM CHRIS

CLASS_CMT: SACKS YIELD WEIGHT

Cement 1

CLASS_CMT2: SACKS2 YIELD WEIGHT

Cement 2

FLD *Production Casing Field Entry CONDITION New

Bot 8428 Diam 7 Top 0 LENGTH Set Dt 12/2/2011

String Comments Casing Condition, Weight and Cement Basket: 220 joints, 26#, N-80, range 3, float shoe, float collar, inflateable packer, DV tool, 10 centralizers

BOC 8440 TOC 7797 ☑ WITNESSED

CMT_CON SUPERIOR WELL SERVICES INSPECTOR GRIMM CHRIS

CLASS_CMT: 50/50 Poz SACKS 75 YIELD 1.29 WEIGHT 14.4

Cement 1 2% gel, 10% salt

CLASS_CMT2: SACKS2 YIELD WEIGHT

Cement 2

Superior Well Services, Ltd.
1380 Rt 286, Suite 121
Indiana, PA 15701
724-465-8904

Cement Job Log

SUPERIOR
WELL SERVICES

Prepared by
Barry Chambers
Black Lick, PA
724-248-1001

Customer	PETROFOLW			**Date:**	11/11/2011	**Invoice #:**	22- 28963	**Serv. Supervisor:**	Barry Chambers		
Lease:	NORTHSTAR 3H			**Permit #**	34-099-2-3171			**County and State:**	indiana		
District:	MAHONING		**Rig:**				**Type of Job:**	13.375" Surface			
Employees & Units on Job Site:		chambers b	1880	SHAULIS J	69	PRUNTY J					

Plugs	**Casing Hardware**	**Physical Slurry Properties**					
		Sacks of Cement	**Slurry Wt PPG**	**Slurry Yield CuFt**	**Water GPS**	**Bbls**	**Mix Water Bbls**
Materials Furnished by Superior							
Spacer:						20	20
Lead:	85 STANDARD TYPE 1 3%CC 1/2 FLAKE	85	15.6	1.18	5.2	17	21
Tail:							
Acid:							
Displacement Chemicals:							

HOLE			**TUBING - CASING - DRILL PIPE**						**COLLAR DEPTHS**		
SIZE	% EXCESS	DEPTH	SIZE	WGT	TYPE	DEPTH	GRADE	ID	SHOE	FLOAT	STAGE
17 1/4	30%	80	13 3/8	54	J 55	80					

LAST CASING			**PKR / CMT RET / LINER PKR**		**PERF DEPTH**		**TOP CONN**		**WELL FLUID**	
SIZE	ID	DEPTH	BRAND / TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT

DISPL VOLUME		**DISPL FLUID**		**CAL PSI**		**WATER**	**MAX TUBING PRES**		**MAX CSG PRESSURE**		**MIX**
VOLUME	UOM	TYPE	WGT	BMP PLUG	PH	TEMP	RATED	WORKING	RATED	WORKING	**WATER**
10.0					7	40					8.33

Time Hrs	Rate	Pressure	Bbls Pumped	Fluid Type				
					Time Left Yard	5:00 AM	Time Left Loc	9:40 AM
					Time Arrived on Loc	7:30 AM	Time Arrived Yard	
7:30 AM					ON LOC			
7:35 AM					SETTRUCKS			
7:40 AM					PRE SAFETY			
7:45 AM					RIG UP TO WELL			
7:55 AM					SAFETY METTING			
8:00 AM	2 TO 5	30	2		PUMP H20			
8:05 AM	2 TO 5	50	14	CEMT	MIX AND PUMP CEMENT			
8:15 AM	2 TO 5	136	10	H2O	PUMP H20 LEFT 20 FT IN PIPE			
8:16 AM					CLOSE IN RELEASE PSI TO TRUCK			
8:20 AM					PUT 5 BBL CEMENT IN CELLER			
8:40 AM					KNOCK OFF WASH UP			
9:30 AM					RACK UP			
9:40 AM					JOB DONE			

Bumped Plug	**Final Lift Pressure**	**Floats Held**	**PSI Left on Casing**	**Cement to Surface**		**Total Circulation**	**Recommended time to wait on cement**		Barry Chambers
YES	700	NA	70	4	Bbls	34	8	Hours	Service Supervisor

Superior Well Services, Ltd.
1380 Rt 286, Suite 121
Indiana, PA 15701
724-465-8904

Cement Job Log

SUPERIOR
WELL SERVICES

Prepared by
Luke Jack
Black Lick, PA
724-248-1001

Customer	PetroFlow Inc			**Date:**	11/13/2011	**Invoice #:**	22- 008005	**Serv. Supervisor:**	Luke Jack		
Lease:	North # 6			**Permit #**	34-099-23171-00			**County and State:**	Mahoning OH		
District:	Youngstown		**Rig:**				**Type of Job:**	9.625" Surface			
Employees & Units on Job Site:			Luke Jack	1279		Jeff Collar	69		Randy Rivardo	987	
	Mark Lapp	Extra									

Plugs	**Casing Hardware**
1-top Rubber 9 5/8	

Materials Furnished by Superior	
Spacer:	500# Bentonite
Lead:	Class A 3% CC 1/4 Flake
Tail:	
Acid:	
Displacement Chemicals:	

Physical Slurry Properties					
Sacks of Cement	**Slurry Wt PPG**	**Slurry Yield CuFt**	**Water GPS**	**Bbls**	**Mix Water Bbls**
430	15.6	1.18	5.2	90.3	53.2

HOLE			**TUBING - CASING - DRILL PIPE**						**COLLAR DEPTHS**		
SIZE	% EXCESS	DEPTH	SIZE	WGT	TYPE	DEPTH	GRADE	ID	SHOE	FLOAT	STAGE
12 1/4	50%	1160	9 5/8	40	Casing	1136	H-80	8.835			

LAST CASING			**PKR / CMT RET / LINER PKR**		**PERF DEPTH**		**TOP CONN**		**WELL FLUID**	
SIZE	ID	DEPTH	BRAND / TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT
13 3/8							8	Round	MUD	

DISPL VOLUME		**DISPL FLUID**		**CAL PSI**		**WATER**	**MAX TUBING PRES**		**MAX CSG PRESSURE**		**MIX WATER**
VOLUME	UOM	TYPE	WGT	BMP PLUG	PH	TEMP	RATED	WORKING	RATED	WORKING	
83.8	BBL	H2O		429	6	60			5750	4600	8.33

Time Hrs	Rate	Pressure	Bbls Pumped	Fluid Type		
					Time Left Yard	9:55 AM	Time Left Loc	3:30 PM
					Time Arrived on Loc	12:30 PM	Time Arrived Yard	
12:00 PM					Require Time on Loc			
12:50 PM					Spot Trucks & Run Line to well & Prime up			
1:20 PM					Held Safety meeting			
1:45 PM	3	80	3	H2O	Load lines			
1:47 PM	.5	1077	0.5	H2O	Pressure Test Line			
1:51 PM	3-5	105	25	H2O	Load Hole Break Circulation			
2:09 PM	5	112	35	GEL	Mix Gell			
2:15 PM	5	90	5	H2O	H2O Spacer			
2:17 PM	3-5-2	165	90.3	CEMT	Mix Pump Cemt @ 15.6 ppg			
2:42 PM					Shut Down Drop Plug			
2:43 PM	3-5-2	80-380	83	H2O	Pump H2O Displacment			
3:04 PM					Shut Down (Left 30 ft cemt in Casing)			
3:06 PM		380			Closed in Well Released off			
3:10 PM					Wash & Rack up truck			
3:30 PM					Job Complete			

Bumped Plug	Final Lift Pressure	Floats Held	PSI Left on Casing	Cement to Surface		Total Circulation	Recommended time to wait on cement		
NA	545	NA	380	40	Bbls	all		Hours	Luke Jack Service Supervisor

Superior Well Services, Ltd.
1380 Rt 286, Suite 121
Indiana, PA 15701
724-465-8904

Cement Job Log

Prepared by
Dave Brewer
Black Lick, PA
724-248-1001

Customer	Petroflow	**Date:**	12/1/2011	**Invoice #:**	22- 28061	**Serv. Supervisor:**	Dave Brewer
Lease:	NORTHSTAR # 6	**Permit #**	34-099-2-3171			**County and State:**	Mahoning OH
District:		**Rig:**				**Type of Job:**	7" Production

Employees & Units on Job Site:							
Blystone	637	Breakiron	3376	Griffen			

Plugs	**Casing Hardware**
7"	

Materials Furnished by Superior		**Physical Slurry Properties**					
		Sacks of Cement	**Slurry Wt PPG**	**Slurry Yield CuFt**	**Water GPS**	**Bbls**	**Mix Water Bbls**
Spacer:							
Lead:	50/50 FC 2% GEL 10% SALT	75	14.4	1.29	5.75	17.3	10.3
Tail:							
Acid:							
Displacement Chemicals:							

HOLE			**TUBING - CASING - DRILL PIPE**						**COLLAR DEPTHS**		
SIZE	% EXCESS	DEPTH	SIZE	WGT	TYPE	DEPTH	GRADE	ID	SHOE	FLOAT	STAGE
8 3/4"		8500'	7"	26		8455'			8455'	8453'	

LAST CASING			**PKR / CMT RET / LINER PKR**		**PERF DEPTH**		**TOP CONN**		**WELL FLUID**	
SIZE	ID	DEPTH	BRAND / TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT

DISPL VOLUME		**DISPL FLUID**		**CAL PSI**		**WATER**	**MAX TUBING PRES**		**MAX CSG PRESSURE**		
VOLUME	UOM	TYPE	WGT	BMP PLUG	PH	TEMP	RATED	WORKING	RATED	WORKING	**MIX WATER**
					5.5	42.5					8.33

Time Hrs	Rate	Pressure	Bbls Pumped	Fluid Type		
					Time Left Yard	3:30 PM	Time Left Loc	
					Time Arrived on Loc	9:00 PM	Time Arrived Yard	
9:00 PM					Arrived on Loc. Running csg			
9:00 PM					Time to be on Loc.			
11:00 PM					Hook up to well-Safty Meeting			
12:40 AM					Pressure test lines to 1500 #			
12:45 AM	.8--3	1030--630	244	H2O	Pump H20			
3:45 AM					SD loaded bottom plug			
4:20 AM	2--3	630	322.9	H2O	Pump H20 to pump plug down to set packer.			
6:40AM	.5	1430	2	H2O	Set packer Pressured up to1430 #			
6:45 AM		1430------0			release psi back			
7:05 AM	1	1805-----0	5	H2O	Pump H20 TO OPEN PACKER			
7:10 AM	2--4	150	17.3	CEMT	PUMP CMT			
7:16 AM					SD Could not get the pin out of p/c			
7:40 AM					release psi back cmt kept coming so co. man said to cir. The cmt out of well			
7:45 AM					cir. Well until moor cmt got here			
11:30 PM					trucks got here			
12:40 PM	2--6	300	40	H2O	PUMP H20			
1:00 PM	2--6	390	17.3	CEMT	PUMP CMT			
1:08 PM					SDRP			
1:09 PM	2--6	700	322	H2O	PUMP H20 DISP.			
2:05 PM		1500---500			SDRELEASE PSI TO 500 #			
2:10 PM					KNOCK OFF WASH UP UNIT			
3:00 PM					JOB COMPLEATE			

Bumped Plug	Final Lift Pressure	Floats Held	PSI Left on Casing	Cement to Surface	Total Circulation	Recommended time to wait on cement	Dave Brewer
YES	700		500	0 Bbls		Hours	Service Supervisor

STATE OF OHIO

DEPARTMENT OF NATURAL RESOURCES

Division of Oil and Gas Resources Management

WELL PERMIT

API WELL NUMBER

34-099-2-3171-00-00

OWNER NAME, ADDRESS	DATE ISSUED	PERMIT EXPIRES
D & L ENERGY INC 2761 SALT SPRINGS RD YOUNGSTOWN OH 44509	11/10/2011	11/9/2013
	TELEPHONE NUMBER	(330) 792-9524

IS HEREBY GRANTED PERMISSION TO: Salt Water Injection Well New Well AND ABANDON WELL IF UNPRODUCTIVE

PURPOSE OF WELL: Water Injection - Disposal

COMPLETION DATE IF PERMIT TO PLUG:

DESIGNATION AND LOCATION:

LEASE NAME	NORTHSTAR COLLINS (SWIW #13)
WELL NUMBER	6
COUNTY	MAHONING
CIVIL TOWNSHIP	COITSVILLE
TRACT OR ALLOTMENT	
SURFACE FOOTAGE LOCATION	238' SL & 2219' EL, SECTION 12
TARGET FOOTAGE LOCATION	

CORRECTION

SURFACE NAD27	TARGET NAD27
X: 2538036	
Y: 524970	
LAT: 41.0911077510738	
LONG: -80.5479115873136	

TYPE OF TOOLS: Air Rotary/Fluid Rotary

PROPOSED TOTAL DEPTH	9900	FEET
GROUND LEVEL ELEVATION	1133	FEET

GEOLOGICAL FORMATION(S):

KNOX - MT. SIMON SANDSTONE

SPECIAL PERMIT CONDITIONS: Salt Water Injection Well (Class II) Construction and Operating Conditions

CONDITIONALLY APPROVED CASING PROGRAM (SUBJECT TO APPROVAL OF THE OIL AND GAS WELL INSPECTOR):

13-3/8 " APPROX. 100 ' WITH CEMENT CIRCULATED TO SURFACE
9-5/8 " APPROX. 1010 ' WITH CEMENT CIRCULATED TO SURFACE
7" CASING 8215' CEMENTED TO A MINIMUM OF 300' ABOVE INJECTION ZONE
4-1/2" TUBING SET ON A PACKER APPROX. 85' ABOVE INJECTION ZONE

This permit is NOT TRANSFERABLE. This permit, or an exact copy thereof, must be displayed in a conspicuous and easily accessible place at the well site before permitted activity commences and remain until the well is completed. Ample notification to inspector is necessary.

OIL AND GAS WELL INSPECTOR:

ROBERTS CARL	(330) 451-9921
EUGENE CHINI - Supervisor	(330) 284-2942
DISTRICT #:	(330) 896-0616

INSPECTOR NOTIFICATION

The oil and gas inspector must be notified at least 24 hours prior to:

1. Commencement of site construction
2. Pit excavation and closure
3. Commencement of drilling, reopening, converting or plugback operations
4. Installation and cementing of all casing strings
5. BOP testing
6. Well stimulation

The oil and gas inspector must be notified immediately upon:

1. Discovery of defective well construction
2. Detection of any natural gas or H2S gas during drilling in urban areas
3. Discovery of defective well construction during well stimulation
4. Determination that a well is a lost hole
5. Determination that a well is a dry hole

FIRE AND EMERGENCY NUMBERS

FIRE:	( ) - 911
MEDICAL SERVICE	( ) - 911

CHANGE IN PROPOSED TOTAL DEPTH (12/13/2011)

Richard J. Simmers

CHIEF, Division of Oil and Gas Resources Management

STATE OF OHIO

DEPARTMENT OF NATURAL RESOURCES

Division of Oil and Gas Resources Management

WELL PERMIT

API WELL NUMBER

34-099-2-3171-00-00

D & L ENERGY INC
2761 SALT SPRINGS RD
YOUNGSTOWN, OH 44509

ROUTE SLIP FOR CORRECTION/CHANGE OF EXISTING PERMITS

COUNTY: MAHONING TOWNSHIP: COITSVILLE PERMIT NO. 3171

PERSON RECEIVING REQUEST: OPRITZA DATE: 12/13

OWNER: D & L ENERGY

LEASE NAME: NORTHSTAR COLLINS (SWIW # 13) WELL NO: 6

CHANGES:

_____ Change in acreage/drill unit and/or ___ As Drilled Plat for Horizontal Drill

_____Unit Configuration only
(new plat submitted: yes ___ no___)
(fee required: yes_____ no____)
(check no:_____)

_____ change in type of tool

_____ correction in footage description (___ surface ___ target)

✓ change in formation/total depth

___change in lease name/well number

_____change in casing program

_____ correction to X,Y coordinates (_____ surface _____target)

_____ other (specify):

CORRECTION SHOULD READ:

PROPOSED TD: 9,900 ft

CHANGES AUTHORIZED BY: (Geologist) SD Date: 12/13

HAS MINES BEEN NOTIFIED OF CHANGE: (where applicable) Yes____ No_____ BY_____

DATA ENTERED INTO COMPUTER/ISSUED BY: PN DATE: 12/15/2011

REISSUE PERMIT: YES ✓ NO____ ADD CORRECTION TO PERMIT LIST ✓ YES ____ NO

DATE CORRECTION NEEDED: ASAP TO BE MAILED:_____ TO BE FAXED:_____

FAX NUMBER:_____

COMMENTS:

Opritza, Steve

From: Larry Smyers [lsmyers@dandlenergy.com]
Sent: Tuesday, December 13, 2011 12:08 PM
To: Opritza, Steve
Cc: BenLupo@dandlenergy.com; npaparodis@dandlenergy.com
Subject: Modification for D&L Energy North Star # Collins #6 (SWIW#13) Permit 34-099-23171-00-00

Steve:

Please accept t6his correspondence as D&L's request to modify the above caption permit to reflect the actual footage and formations penetrated.

The North Star # 6 was drilled to a total depth (logger) of 9840', just penetrating the Precambrian basement complex. Please reissue the permit to reflect a proposed total depth of 9900'.

In as far as the permit application, it is intended that the formations intended for injecting fluids are the Knox Dolomite through the Mt. Simon sandstone, however in order to penetrate
all of this section of rock, the well just penetrated the Precambrian Complex. The first page of the original permit indicates "GEOLOGICAL FORMATIONS" and I noticed that Knox-MT. Simon Sandstone is
indicated. For our future reference, is this description adequate, or should Knox-Precambrian be inserted?

Any questions, please let me know.
Thank You
Larry Smyers
D&L Energy

PH; 330-792-9524

STATE OF OHIO

DEPARTMENT OF NATURAL RESOURCES

Division of Oil and Gas Resources Management

WELL PERMIT

API WELL NUMBER

34-099-2-3171-00-00

OWNER NAME, ADDRESS

D & L ENERGY INC
2761 SALT SPRINGS RD
YOUNGSTOWN OH 44509

DATE ISSUED	PERMIT EXPIRES
11/10/2011	11/9/2013

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TRACT OR ALLOTMENT	
SURFACE FOOTAGE LOCATION	238' SL & 2219' EL, SECTION 12
TARGET FOOTAGE LOCATION	

SURFACE NAD27

X: 2538036
Y: 524970
LAT: 41.0911077510738
LONG: -80.5479115873136

TARGET NAD27

TYPE OF TOOLS: Air Rotary/Fluid Rotary

PROPOSED TOTAL DEPTH	9300	FEET
GROUND LEVEL ELEVATION	1133	FEET

GEOLOGICAL FORMATION(S):

KNOX - MT. SIMON SANDSTONE

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DISTRICT #:	(330) 896-0616

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5. Determination that a well is a dry hole

J. MICHAEL BIDDISON

ACTING CHIEF, Division of Oil and Gas Resources Management

DNR 5606 (Rev. 6/10)

DAILY ROUTE SLIP

Coitsville

APPLICATION NO. aAMY0000421 TYPE: Salt Water Injection Well

CONAME D & L ENERGY INC API

WELL NAME /NO. NORTHSTAR COLLINS 6

COUNTY 99 MAHONING

	INITIALS	DATE
DATE APPLICATION REC'D	AM	9/26/2011
PERMIT FEE AND CHECK NO.	$1,000.00	21461
RUSH AMOUNT RUSH CHECK NO.	$0.00	0
APPLICATION ENTERED	AM	9/26/2011
APPLICATIONS AND PLATS SENT FOR MINE APPROVAL	AM	9/26/2011
COAL APPROVAL RECEIVED		NA
OIL/GAS AFFIDAVIT REC'D		NA
URBANIZED AREA NOTIFICATION SENT		NA
URBANIZED AREA NOTIFICATION SENT TO INSPECTOR/REC'D BACK		NA
URBAN MAP REVIEW		NA
SAMPLES: YES X /SPECIAL AREAS		10/13/2011
GEOLOGIST APPROVAL	FO	11/10/11
DATA ENTRY /ISSUED		11/10/11
PERMIT: TAKEN_____ MAILED X		11/10/11
FAX TO:		
FINAL MAP CHECK	SR	11/22/11

COMMENTS:

Proof Sheet

APPL NUMBER	aAMY0000421	**URBANIZED AREA ?**	☐
OWNER NUMBER	2651	**NAME**	
OWNER NAME	D & L ENERGY INC		
EXISTING WELL	0		
API PERMIT NO		**DISPOSAL PLAN 1**	ND
APPL TYPE	SWIW	**DISPOSAL PLAN 2**	
TYPE OF WELL	SWD	**DISPOSAL PLAN 3**	
VARIANCE REQUEST		**DISPOSAL PLAN 4**	
WELL NAME	NORTHSTAR COLLINS (SWW #13)	**DISPOSAL PLAN 5**	
WELL NUMBER	6	**MP Check #**	0
PREV/PROPOSED TD	9300		
DRILL UNIT ACRES	10.38		
TYPE OF TOOL	RTAF	**PROPOSED FORMATIONS**	
WELL CLASS	SWIW	KNOX - PRECAMBRIAN	
FIRE PHONE	( ) - 911		
MEDICAL PHONE	( ) - 911		
COUNTY CODE	99		
COUNTY NAME	MAHONING		
COAL (Y=-1/N=0)	-1		
CIVIL TOWNSHIP	COITSVILLE	**TARG CIVIL TWP**	
SURF QUAD	CAMPBELL	**TARG QUAD**	
Nad 27 SURF ORIG X	2538036	**Nad 27 TARG ORIG X**	
Nad 27 SURF ORIG Y	524969	**Nad 27 TARG ORIG Y**	
GROUND ELEVATION	1133	**TARG ELEV**	0
SURF SEC	12	**TARG SECTION**	
SURF LOT		**TARG LOT**	
SURF QTR TWP		**TARG QTR TWP**	
SURF ALLOT		**TARG ALLOT**	
SURF TRACT		**TARG TRACT**	
SURF FRACTION		**TARG FRACTION**	

Proof Sheet

SURFACE FOOTAGE

238' SL & 2219' EL OF Section 12

TARGET FOOTAGE

CASING PROGRAM

09	13 3/8	100
09	9 5/8	1010
32	7	8215
40	4 1/2	85

SPECIAL CONDITIONS/COMMENTS

Class II Drilling and Construction Conditions

COMPLETION DT

MINES APPROVAL

AFFIDAVIT APPROV

FINAL ENTRY DATE 11/10/2011

Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR SCOTT A. ZODY, INTERIM DIRECTOR

Division of Oil and Gas Resource Management
J. Michael Biddison, Acting Chief
2045 Morse Road—Bldg H-2
Columbus, OH 43229-6693
Phone: (614) 265-6893, Fax: (614) 265-7999

November 10, 2011

D & L Energy, Inc.
2761 Salt Springs Road
Youngstown, Ohio 44509

RE: Permit #3171, SWIW #13, Northstar Collins No. 6, Coitsville Township, Mahoning County, Ohio

Dear Sir/Madam:

The enclosed saltwater injection well permit is issued subject to the following construction and operational conditions.

Constructional conditions:

1. The **7" casing** must be enclosed in cement from the total depth to approximately **7915 feet** (minimum of 300 feet above the top of the injection zone).
2. Injection tubing must be set on a packer at approximately **5850 feet**. A ¼", female, threaded fitting with a stop valve must be installed on the tubing and accessible at the surface.
3. **The annular space between the injection tubing and the 7" production casing must be filled with a fluid (e.g., freshwater with a corrosion inhibitor additive), pressure tested to at least 1890 psi, and monitored for at least 15 minutes with no more than a five percent decline in pressure. Additionally, the injection line must also be tested to 1890 psi for 15 minutes with no more than a five percent decline.**
4. The UIC Section and the Mineral Resources Inspector must be notified at a minimum of 48 hours in advance of the time of cementing, placing and removing of casing, installation of the tubing and packer, testing of the casing, construction of the surface facilities, pressure testing of the injection line, and initial injection so that a representative of the Division can be present to witness the operations. The Division must also be notified in advance of any subsequent removal of the injection tubing or resetting the packer. A pressure test will also be required.
5. Surface facilities as proposed in the application are satisfactory and must be constructed under the supervision of a representative of the Division. A concrete pad with drain must be constructed so as to contain any spillage of saltwater

during unloading from the trucks. Any proposed changes in the surface facilities must be submitted in writing and must have prior approval of the UIC Section.

6. **If an unloading pad is to be constructed, the underground concrete vault associated with the catch basin on the unloading pad shall be of one-piece construction and if the concrete vault has a detached lid, the lid must be exposed above the ground level. Additionally, the inside walls of the concrete vault shall be sealed with a salt-corrosion type material such as an asphalt-based coating to prevent deterioration of the vault from the brine water.**
7. A Well Construction Record (Form 8) must be submitted within 30 days after completion describing how the well was completed for injection operations. This report should include the amount and grade of tubing, type and depth of packer, treatment of the injection formation, testing of the system integrity, method used to monitor pressure in the annulus and injection tubing, and method used to monitor volumes of injected fluid.
8. **Prior to setting the tubing and packer, D & L Energy, Inc. shall run a radioactive tracer test to demonstrate that the injection fluids are going into the permitted injection zones. The Division recommends using the radioactive fluid versus the radioactive beads.**
9. **Due to the close proximity of surface bodies of water at this site, D & L Energy, Inc. shall install a double-walled injection pipeline (pipe within a larger diameter pipe) from the injection pump to the injection well to ensure containment of fluids.**

Operational Conditions:

1. Surface injection pressure must not exceed **1890 psi.**
2. No liquids or waste matter from any source other than saltwater from oil and gas operations or standard well treatment fluid may be injected into this well. All fluids must be stored in approved tanks and allowed to settle before injection.
3. The annulus between the injection tubing and the **7"** production casing must be monitored either continuously during injection of fluids or at least monthly at a minimum pressure of 200 psi. If such monitoring indicates a leak in the casing, tubing, or packer, the UIC Section must be immediately notified at (614) 265-1032.
4. Injection pressures and volumes must be monitored on a daily operational basis with average and maximum injection pressures and volumes compiled and recorded on a monthly basis and filed annually with the Division.
5. **All injection pressures and annulus pressures must be continuously recorded on a tamper-proof continuous recording device such as a two-pen recorder.**
6. **A Murphy Switch or other cut-off switch device must be in-line with the injection pump and set at the maximum allowable injection pressure, so that the pump will automatically shut-down upon exceeding maximum allowable injection pressure.**
7. **As of July 1, 2010, an injection disposal fee is required to be submitted to the Division each quarter. The form and guidelines are attached for you convenience.**

8. Results of the monitoring required in paragraphs three and four above must be filed with the Division annually on Form 204. This report is due no later than 45 days after the last day of each calendar year.
9. Upon discontinuance of injection operations, the owner/operator must apply for a permit to plug and abandon the well. The well must be plugged and abandoned within 60 days after discontinuance of operations.
10. Any proposed changes in the procedures or plans outlined here or in the saltwater injection well application must be submitted in writing to the UIC Section. If such changes are approved, they will be authorized in writing.

If there are any questions concerning this well or the above conditions, please feel free to contact me at (614) 265-1032.

For the Chief of the Division of Oil and Gas Resources Management

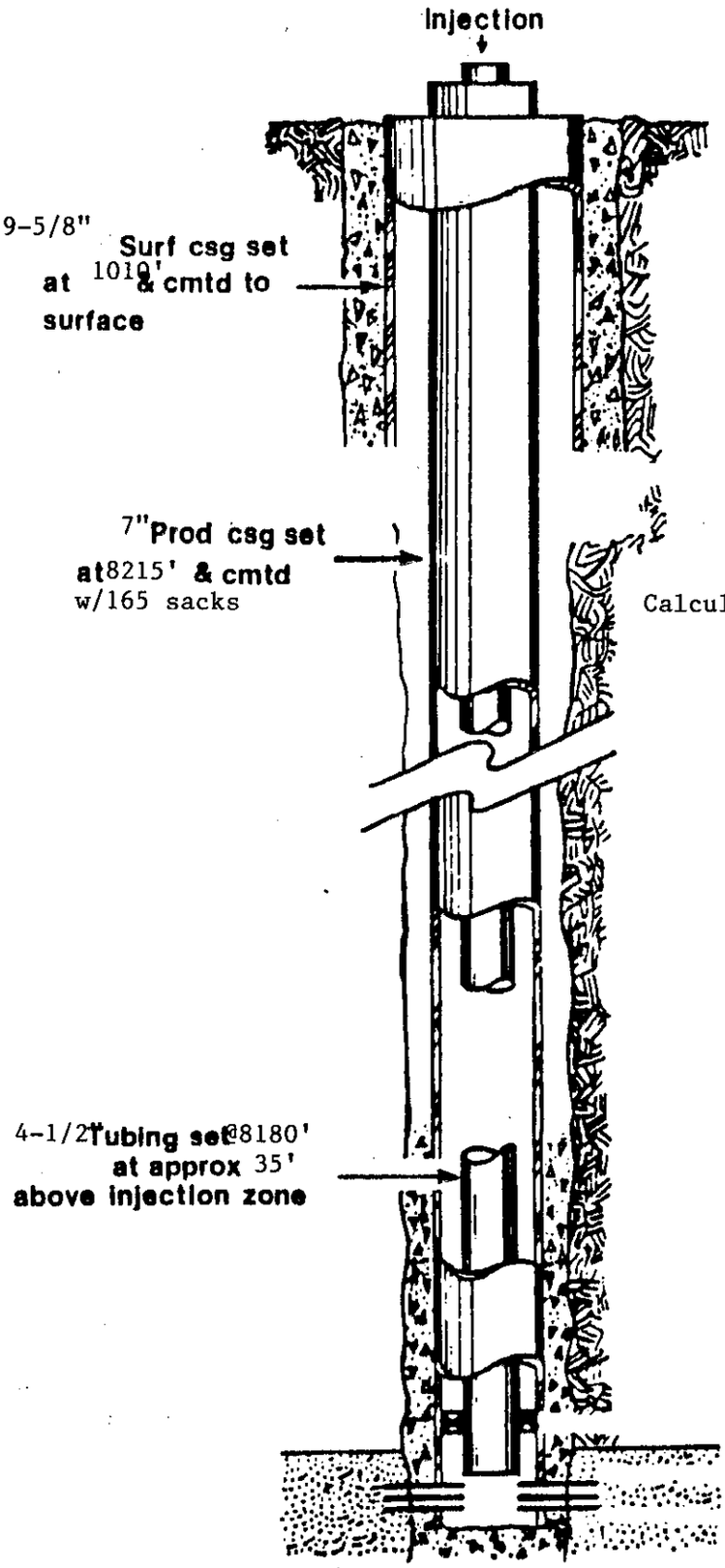
Sincerely,

Tom Tomastik, Geologist 4
Division of Oil and Gas Resources Management
2045 Morse Road, H-3
Columbus, Ohio 43229-6693

Cc: Carl Roberts, Mineral Resources Inspector
Permitting File
UIC File

Subsurface Construction For Injection Well

Maximum Injection Pressure: 1890 **psi**



Total Depth: 9184 feet

APPLICATION FOR A PERMIT (Form 1)

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINERAL RESOURCES MANAGEMENT
2045 Morse Road, Building H-3
COLUMBUS, OHIO 43229-6693
(614) 265-6633

#21461
$1,000.00

aHM/0000421

SEE INSTRUCTIONS ON PAGE 2 (BACK)

1. I, We (applicant) D&L ENERGY, INC. 2. Owner #: 2651
(address) 2761 SALT SPRINGS RD., YOUNGSTOWN, OH 44509 Phone #: 330-792-9524
hereby apply this date SEPT. 19 , 20 11 for a permit to:

- ☐ Reissue (check appropriate blank)
- ☑ Drill New Well
- ☐ Drill Directionally
- ☐ Drill Horizontally
- ☐ Revised Location
- ☐ Plug Back
- ☐ Plug and Abandon
- ☐ Orphan Well Program
- ☐ Convert
- ☐ Deepen
- ☐ Reopen
- ☐ Temporary Inactive

3. TYPE OF WELL:
- ☐ Oil & Gas
- ☐ Stratigraphic Test
- ☐ Solution Mining*
- ☐ Input/Injection
- ☐ Annular Disposal
- ☐ Gas Storage
- ☐ Enhanced Recovery*
- ☐ Water Supply
- ☑ Saltwater Injection
- ☐ Other *(explain):*
- ☐ Observation
- ☐ Production/Extraction

*(* if checked, select appropriate box below)*

4. MAIL PERMIT TO:
D&L ENERGY, INC. 2761 SALT SPRINGS RD. YOUNGSTOWN, OH 44509

20. TYPE OF TOOLS:
- ☐ Cable
- ☐ Cable / Air Rotary
- ☐ Cable / Fluid Rotary
- ☐ Cable / Air / Fluid Rotary
- ☐ Air Rotary
- ☑ Air / Fluid Rotary
- ☐ Fluid Rotary
- ☐ Service Rig

5. COUNTY: MAHONING
6. CIVIL TOWNSHIP: COITSVILLE TWP.
7. SECTION: 8. LOT: 12
9. FRACTION: 10. QTR TWP:
11. TRACT / ALLOT:
12. WELL #: 6
13. LEASE NAME: NORTHSTAR COLLINS
14. PROPOSED TOTAL DEPTH: ~~9300~~ 9184

21. PROPOSED CASING PROGRAM:
13 3/8" - 100' 7" - 8215'
9 5/8" - 1010'
~~11-3/4" FOR 100 FT , 9-3/4" FOR 400 FT CEMENTED~~ TO SURFACE, ~~7" CEMENTED~~ TO SURFACE

15. PROPOSED GEOLOGICAL FORMATION:
KNOX-PRECAMBRIAN

16. DRILLING UNIT IN ACRES (must be same as acres indicated on plat): 10.38

22. FIRE AND MEDICAL DEPARTMENT TELEPHONE NUMBERS: (closest to well site)
Fire: 911
Medical: 911

17. **IF PERMITTED PREVIOUSLY:**
API #:
OWNER:
WELL #:
LEASE NAME:
TOTAL DEPTH:
GEOLOGICAL FORMATION:

23. MEANS OF INGRESS & EGRESS:
Township Road:
County Road:
Municipal Road:
State Highway: US 422 McCARTNEY ROAD

18. IF SURFACE RIGHTS ARE OWNED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES
Division Name: N/A
Division Phone:

24. IS THE WELL LOCATION OR PRODUCTION FACILITIES WITHIN AN URBANIZED AREA AS DEFINED BY 1509.01(Y) ?
☐ Yes ☑ No

19. LANDOWNER ROYALTY INTEREST:
Is There An Attached List? ☐ Yes ☑ No
Name: GEORGE COLLINS, JR.
Address: 5100 McCARTNEY RD., LOWELLVILLE, OH 44436
Name:
Address:
Name:
Address:

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I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

I, the undersigned, further depose and state that I am the person who has the right to drill on the tract or drilling unit and to drill into and produce from a pool and to appropriate the oil or gas that I produce therefrom either for myself or others as described in this application. And furthermore, I the undersigned, being duly sworn, depose and state at this time that I am not liable for any final nonappealable order of a court for damage to streets, roads, highways, bridges, culverts, or drainage ways pursuant to Section 5577.12 of the Ohio Revised Code (ORC). I, the undersigned, further depose and state that all notices required by 1509.06 (A) (9) ORC for this application have been duly provided by me. If applying for a permit to plug and abandon a well, I hereby certify that the written notices, as required in Section 1509.13, ORC, have been given.

That I hereby agree to conform with all provisions of Chapter 1509., ORC, and Chapter 1501., OAC, and all orders and conditions issued by the Chief, Division of Mineral Resources Management.

Signature of Owner/Authorized Agent _____

Name (Type or Print) NICHOLAS PAPARODIS Title V.P. LAND OPERATIONS

If signed by Authorized Agent, a certificate of appointment of agent must be on file.

Sworn to and subscribed before me this the 20 day of September, 20 11

Kimberly A. Little
(Notary Public)

KIMBERLY A. LITTLE
MY COMMISSION EXPIRES
JUNE 1, 2014
(Date Commission Expires)

DNR 5619 (Rev. 06/2010)

SUPPLEMENT TO APPLICATION
PERMIT FOR A SALTWATER INJECTION WELL (Form 210)

Ohio Department of Natural Resources, Division of Mineral Resources Management
2045 Morse Road, Bldg H3
Columbus, OH 43229-6693

AREA OF REVIEW. An application for a saltwater injection well (SWIW) will be evaluated on the basis of an "area of review" surrounding the proposed well. The area of review for wells in which injection of greater than two hundred barrels per day is proposed shall be the area circumscribed by a circle with the center point at the location of the injection well and a radius of one-half mile. The area of review for wells in which a maximum injection of two hundred barrels per day or les is proposed shall be the area circumscribed by a circle with the center point at the location of the injection well and a radius of one-quarter mile.

31. **PROPOSED INJECTION ZONE**

Geological Formation: Knox-Precambrian

Injection Interval: From: 8215 feet to 9180

Geologic description of injection zone: Interbedded, sandstone, limestone, dolmite,arkose sands

32. **WELL CONSTRUCTION AND OPERATION**

A. Description of the proposed casing and cement program for new wells, or of the casing, cementing or sealing with prepared clay for existing wells to be converted:

Set 100' of 13-3/8" conductor, drill to 1010' and set 1010' of 9-5/8" casing with 300 sacks of superlite cement, drill 8-3/4" hole from 1010' to 9184' and set 8215' of 7" casing, set casing annulus packer (cap) at 8215', cement 7" casing from 8215' with 165 sacks SFL cement.

4 1/2" set on packer at 8140' or 85' above injection zone

B. Proposed method for testing the casing:

Mechanical Integrity test, then daily monitoring with a chart recorder.

Pressure test casing/tubing annulus to at least 1090 psi for 15 minutes with no more than a five percent decline.

C. Description of the proposed method for completion and operation of the injection well:

Acidize and injection test thru 7" casing. Install 4" lined tubing with Baker packer set.

D. Description of the proposed unloading, surface storage, and spill containment facilities:

Concrete unloading pad
20 - 500 BBL steel holding and settling tanks contained in a 81'x140' concrete containment area with 5'-2" concrete walls.

* Full scale drawings submitted to the Division

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33. **PROPOSED INJECTION VOLUMES**

A. Indicate the estimated amount of saltwater to be injected into the proposed injection well per day:

AVERAGE: 1500 BBL MAXIMUM: 3500 BBL

B. Indicate the method to be used to measure the actual amount of saltwater injected into the well:

Daily water tickets and BBL counter.

34. **PROPOSED INJECTION PRESSURES**

A. Indicate the estimated pressure to be used for injection of saltwater into the proposed injection well:

AVERAGE: 1200 MAXIMUM: 1890

B. Indicate the method to be used to measure the actual daily injection pressure:

Chart recorder

35. **PROPOSED CORRECTIVE ACTION**

Explain any corrective action proposed for wells penetrating the proposed injection formation or zone within the area of review:

n/a

36. **MAP**. Each application for a permit shall be accompanied by a map or maps showing and containing the following information:

A. The subject tract of land on which the proposed injection well is to be located.

B. The location of the proposed injection well on the subject tract established by an Ohio registered surveyor showing the distances in feet from the proposed well site to the boundary lines on the subject tract;

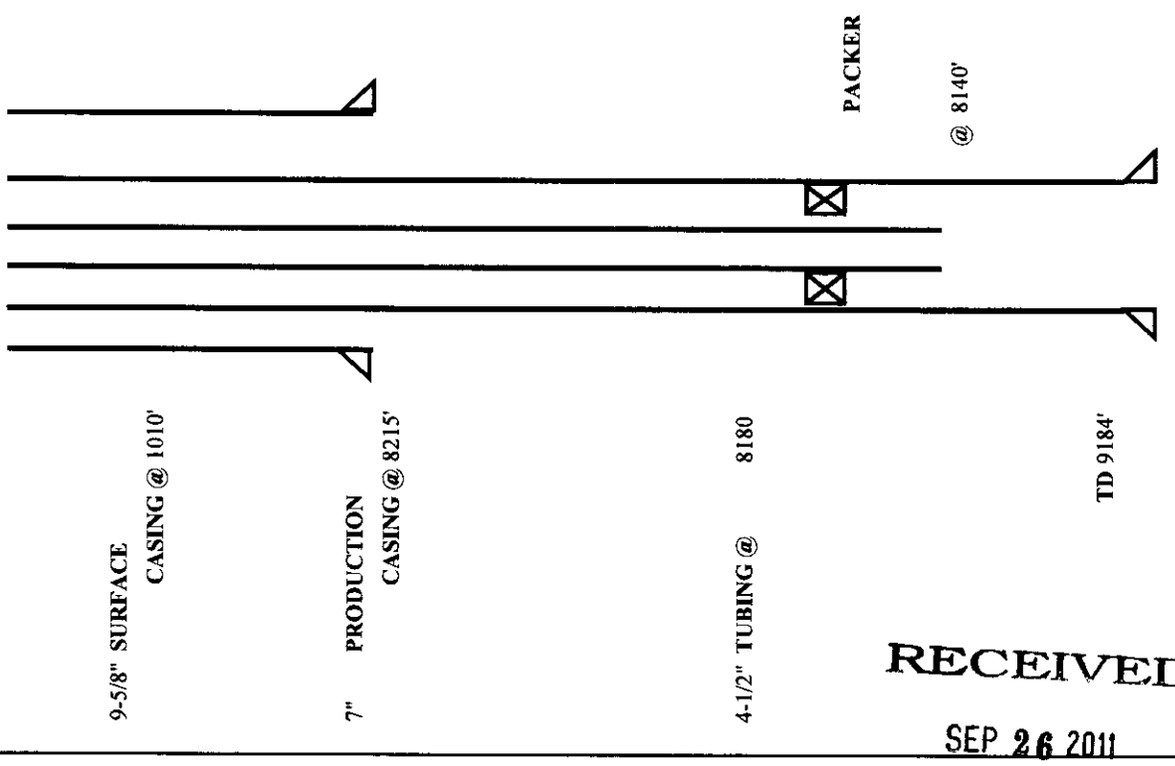
C. The geographic location of all wells, penetrating the formation proposed for injection regardless of status, within the area of review;

D. All holders of the land owner's royalty interest of record, or holders of the severed oil and gas mineral estates of record in the subject tract;.

E. All owners or operators of wells producing from or injecting into the same formation proposed as the injection formation.

37. **SCHEMATIC DRAWING OF SUBSURFACE CONSTRUCTION.** Label the schematic drawing below indicating size and setting depth of surface casing, intermediate (if any) and production casings; amount of cement used, measured or calculated tops of cement; size and setting depth of tubing; type and setting depth of packer; geologic name of injection zone showing top and bottom of injection interval. If the proposed input well design is substantially different from the schematic below, attach on a separate sheet a schematic of your proposal labeled with the above information.

SCHEMATIC OF SUBSURFACE CONSTRUCTION



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38. Public notice of an application for an enhanced recovery project is required by law. In addition, the applicant must submit, on an attached sheet, a list of the names and address of those persons required to receive personal notice in accordance with Rule 1501:9-5-05(E)(1), of the Ohio Administrative Code.

After submitting the application, and after a determination by the Division that it is complete as required by the rules of the Division, a legal notice must be published by the applicant in a newspaper of general circulation in the area of review. The legal notice must contain the information described in Rule 1501:9-5-05(E)(1) of the Ohio Administrative Code. A copy of the notice must be delivered to all owners or operators of wells within the area of review producing from or injecting into the same formation proposed as the injection formation. Proof of publication, publication date, and an oath as to the delivery to those entitled to receive personal notice under this method must be filed with the Division within thirty days after the Division determines that the application is complete.

In addition, notice of all applications for enhanced recovery projects will be published in the Division's Weekly Circular.

The undersigned hereby agrees to comply with all provisions for an enhanced recovery project as required by Chapter 1501:9-5 of the Ohio Administrative Code. In addition, the undersigned deposed and says that he shall conform to all provisions of Section 1509.072 of the Ohio Revised Code, and to all orders and rules issued by the Chief, Division of Mineral Resources Management.

Owner/Authorized Agent (Type or Print): Nicholas C. Paparodis

Signature of Owner/Authorized Agent: _____ Title: VP Land Operations

Permanent Address of Home Office: 2761 Salt Springs Road, Youngstown, OH 44509

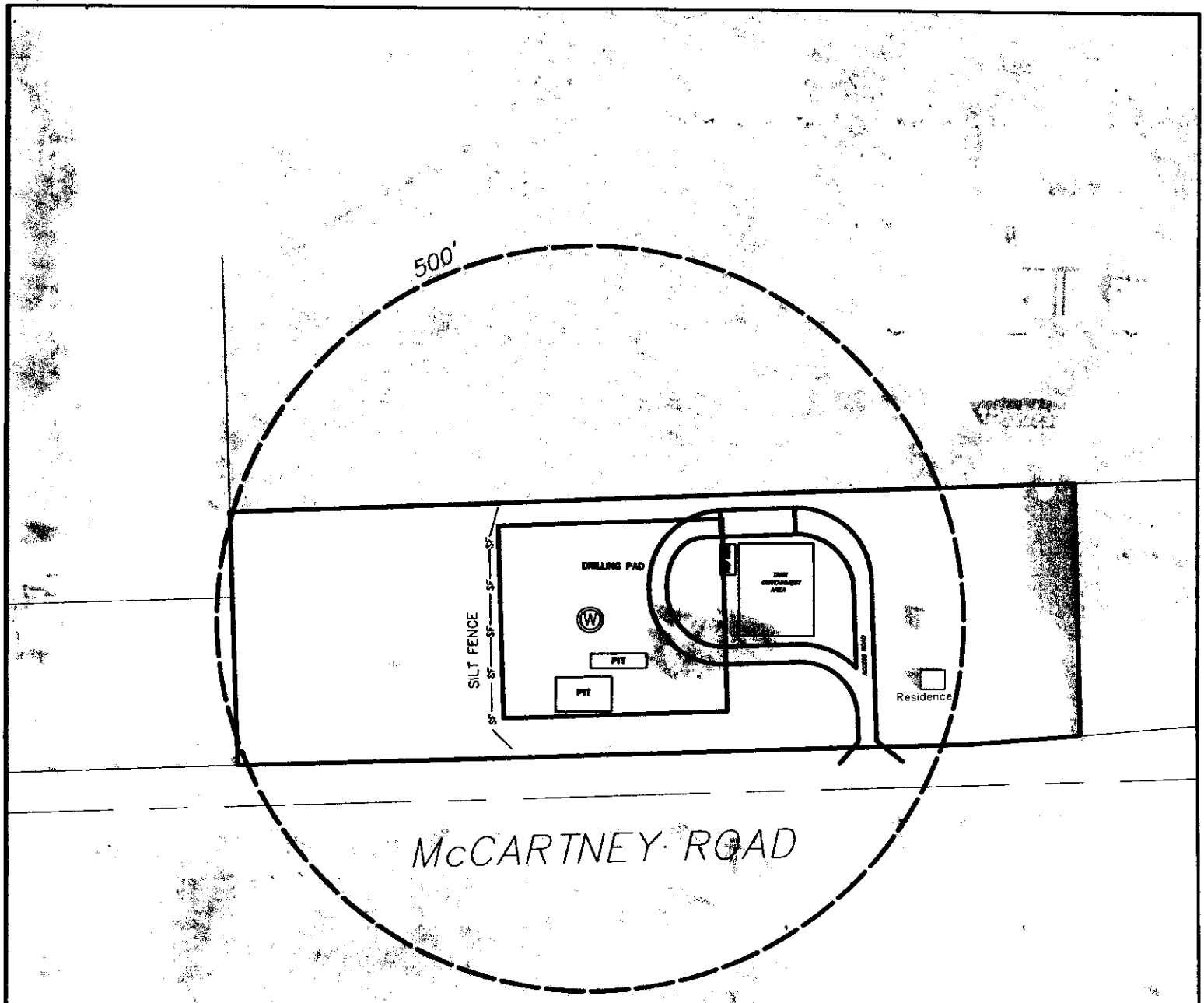
If signed by Authorized Agent, a certified copy of appointment of agent must be on file with the Division.

SWORN to and subscribed before me this 20 day of September, 20 11.

Kimberly A. Little
Notary Public

(SEAL) KIMBERLY A. LITTLE
MY COMMISSION EXPIRES
JUNE 1, 2014

6/1/2014
Date Commission Expires



N

SCALE: 1"=200'

PROPOSED SITE PLAN
FOR
NORTHSTAR COLLINS NO.6

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

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WELL LOCATION PLAT

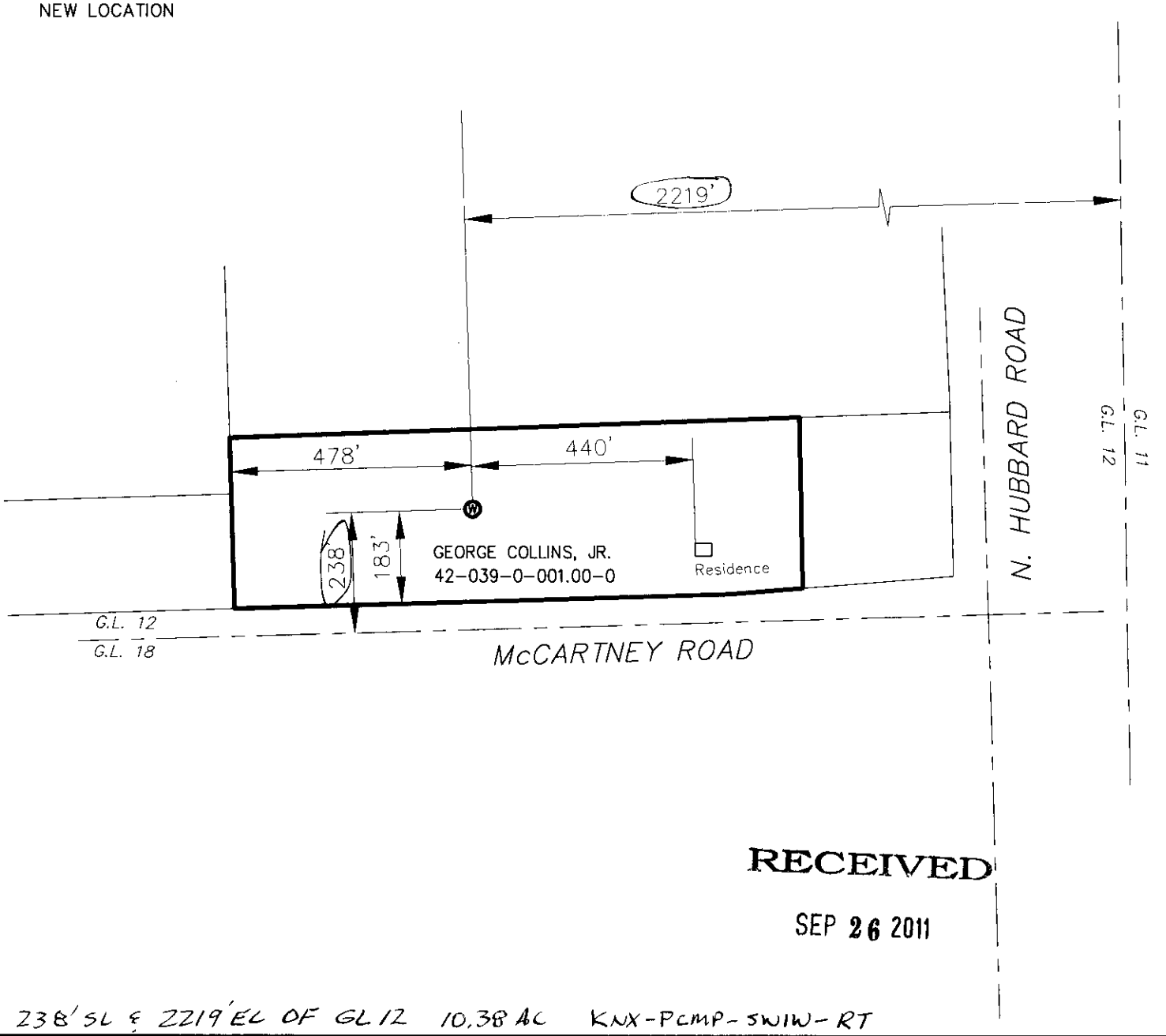
Latitude: 41° 05' 28.20"
NORTH: .525001

Longitude: 80° 32' 51.74"
EAST: 2506578

NAD 27
X 2538036
Y 524969

LEGEND:

Ⓦ PROPOSED BRINE WATER INJECTION WELL
NEW LOCATION



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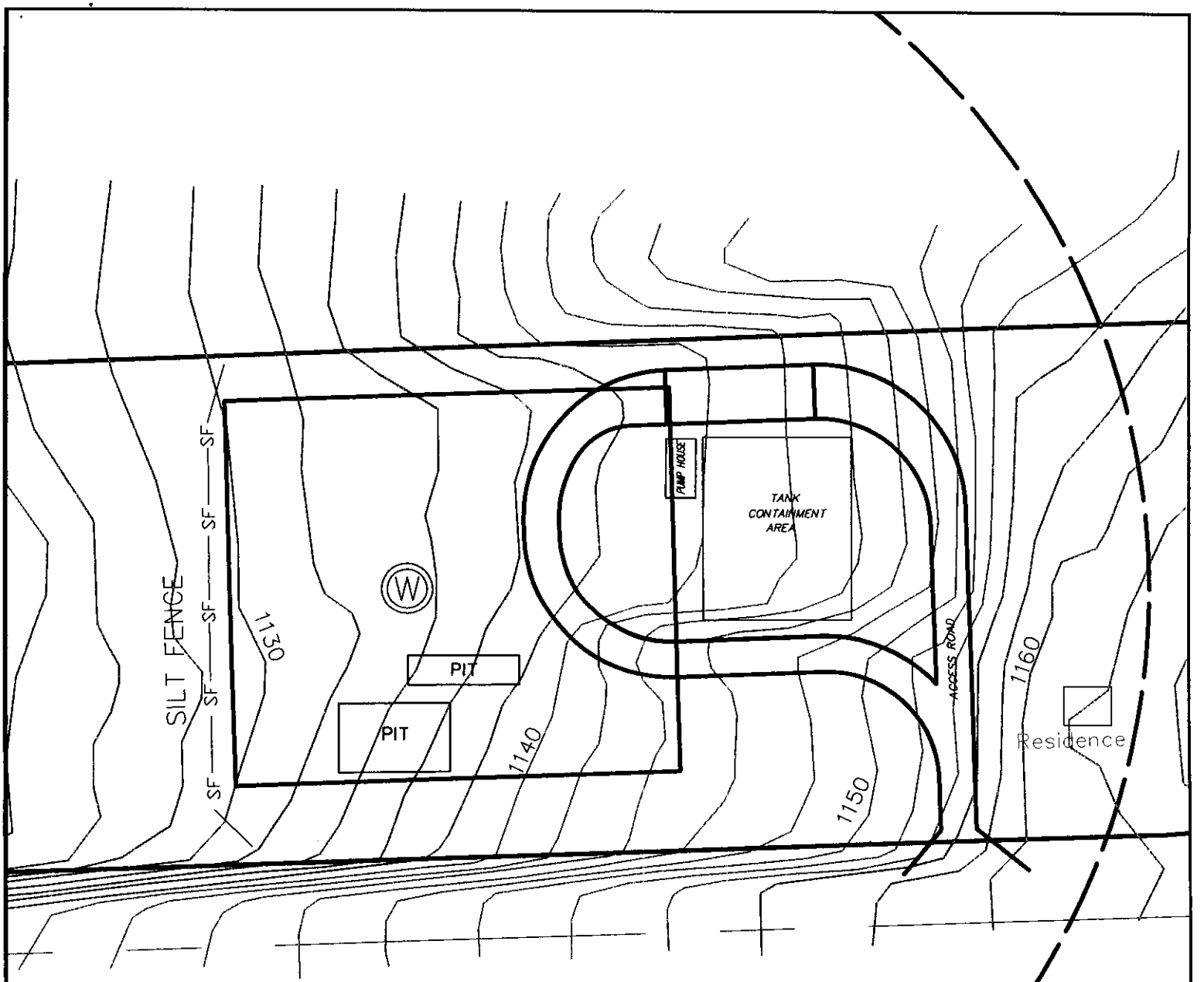
238' SL & 2219' EL OF GL 12 10.38 AC KNX-PCMP-SWIW-RT

Surveyor or Engineer: GARY TANERI	Phone #: 330-207-5502	Date: SEPT. 15, 2011	Scale: 1"=300'	Acreage: 10.38	
Lat. & Long Metadata Method: GPS	Accuracy: 3 ft.	Datum: NAD83	Elevation Metadata Method: USGS	Accuracy: 10 ft.	Datum: NGVD29
Survey Date: 9/01/11					
Applicant / Well Operator Name: D & L ENERGY, INC.			Well(Farm) Name: NORTHSTAR COLLINS	Well #: 6	
Address: 2761 SALT SPRINGS ROAD YOUNGSTOWN, OH 44509			County: MAHONING	Municipality: COITSVILLE TOWNSHIP	
Surface Landowner: GEORGE COLLINS, JR.			USGS 7½ Quadrangle Map Name: CAMPBELL		
Surface Lessor: D & L ENERGY, INC.			Angle & Course of Deviation (Drilling): VERTICAL	Surface Elevation: 1133 ft.	Anticipated Total Depth: 9300 ft.

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
MINERAL RESOURCES MANAGEMENT
COLUMBUS, OH 43224

9.19.11
Gary Richard Taneri Date
Registered Professional Surveyor No. 7672

STATE OF OHIO
GARY RICHARD TANERI
7672
REGISTERED
PROFESSIONAL SURVEYOR



N

SCALE: 1"=100'

PROPOSED SITE PLAN
FOR
NORTHSTAR COLLINS NO.6

D & L ENERGY, INC.
2761 SALT SPRINGS ROAD
YOUNGSTOWN, OH 44509
330-792-9524

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RESTORATION PLAN (Form 4)

Ohio Department of Natural Resources

Division of Mineral Resources Management, 2045 Morse Road, Bldg. H-3, Columbus OH 43229-6693

1. DATE OF APPLICATION: SEPT. 19, 2011

2. OWNER NAME, ADDRESS, & TELEPHONE NO.:
D&L ENERGY, INC., 2761 SALT SPRINGS RD., YOUNGSTOWN, OH 44509 330-792-9524

3. API #:

4. WELL #: 6

5. LEASE NAME: NORTHSTAR COLLINS

6. PROPERTY OWNER: GEORGE COLLINS, JR.

7. COUNTY: MAHONING

8. CIVIL TOWNSHIP: COITSVILLE

9. SECTION: 10. LOT: 12

11. CURRENT LAND USE:
- ☐ Cropland
- ☐ Commercial
- ☐ Pasture
- ☑ Idle Land
- ☐ Wetlands
- ☐ Recreational
- ☐ Residential
- ☐ Industrial
- ☐ Unreclaimed strip mine
- ☐ Woodland: ☐ Broadleaf ☐ Needlelike

12. SLOPE GRADIENT & LENGTH DETERMINED FROM:
- ☐ Ground Measurement
- ☐ U.S. Geological Survey Topographical Maps
- ☑ Other: (explain) COUNTY GIS MAP

13. TYPE OF FALL VEGETAL COVER:
- ☐ Little or no vegetal cover
- ☐ Short grasses
- ☑ Tall weeds or short brush (1 to 2 ft.)
- ☐ Brush or bushes (2 to 6 ft.)
- ☐ Agricultural crops
- ☐ Trees with sparse low brush
- ☐ Trees with dense low brush

14. SOIL & RESOILING MATERIAL AT WELLSITE:
- ☑ Stockpile and protect topsoil to be used when preparing seedbed
- ☐ Use of soil additives (e.g., lime, fertilizer)
- ☐ No resoiling planned
- ☐ Proposed alternative _____

15. DISPOSAL PLAN FOR TREES AND TREE STUMPS:
- ☐ No trees disturbed
- ☐ Haul to landfill
- ☐ Cut into firewood
- ☐ Sell to lumber company
- ☐ Bury with landowner's approval
- ☑ Mulch small trees and branches, erosion control
- ☑ Use for wildlife habitat with landowner approval
- ☐ Proposed alternative _____

16. SURFACE AND SUBSURFACE DRAINAGE FACILITIES:
- ☑ No existing drainage facilities for removal of surface and/or subsurface water
- ☐ Tile drainage system underlying land to be disturbed
- ☐ Drain pipe(s) underlying land to be disturbed
- ☐ Surface drainage facilities on land to be disturbed

17. TYPE OF WELL:
☐ Oil ☐ Gas ☑ Other

18. STEEPEST SLOPE GRADIENT CROSSING SITE:
- ☐ 0 to 2%
- ☑ 2.1 to 8%
- ☐ 8.1 to 10%
- ☐ 10.1 to 24%
- ☐ greater than 24%

19. LENGTH OF STEEPEST SLOPE CROSSING SITE:
- ☐ 1 to 100 ft.
- ☐ 101 to 200 ft.
- ☑ 201 to 400 ft.
- ☐ greater than 400 ft.

20. RESTORATION OF DRILLING PITS: **
- ☑ Haul drilling fluids and fill pits
- ☐ Use steel circulating tanks
- ☐ Proposed alternative _____

21. BACKFILLING AND GRADING AT SITE:
- ☐ Construct diversions channeled to naturally established drainage systems
- ☐ Construct terraces across slopes
- ☐ Grade to approximate original contour
- ☐ Grade to minimize erosion & control offsite runoff
- ☑ Proposed alternative DISPOSAL FACILITY

22. VEGETATIVE COVER TO BE ESTABLISHED AT SITE:
- ☑ Seeding plan
- ☐ Sod
- ☐ Agricultural crops
- ☐ Trees and/or Bushes
- ☐ Proposed alternative _____

23. ADDITIONAL HOLES:
- ☑ Rat/Mouse, if used, will be plugged

24. PROPOSED OR CURRENT LENGTH OF ACCESS ROAD:
- ☐ 100 ft. or less
- ☑ 101 to 500 ft.
- ☐ 501 to 1500 ft.
- ☐ greater than 1500 ft.

25. CURRENT LAND USE OF PATH OF ACCESS ROAD:
- ☐ Cropland
- ☐ Pasture
- ☐ Commercial
- ☑ Idle land
- ☐ Wetlands
- ☐ Recreational
- ☐ Industrial
- ☐ Residential
- ☐ Unreclaimed strip mine
- ☐ Woodland: ☐ Broadleaf ☐ Needlelike

**PITS MUST BE FILLED WITHIN TWO MONTHS AFTER COMMENCEMENT OF THE WELL AND WITHIN FOURTEEN DAYS AFTER COMMENCEMENT OF THE WELL IN AN URBANIZED AREA.

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REQUIRED BY SECTION 1509.06 (A)(10), OHIO REVISED CODE -- FAILURED TO SUBMIT MAY RESULT IN AN ASSESSMENT OF CRIMINAL FINES NOT LESS THAN $100.00 NOR MORE THAN $2,000.00 OR CIVIL PENALTIES NOT LESS THAN $4,000.00.

26. SURFACING MATERIAL FOR ACCESS ROAD:
- [x] Gravel
- [ ] Brick and/or tile waste
- [ ] Slag
- [ ] Crushed stone
- [ ] No surfacing material to be used
- [ ] Proposed alternative

29. STEEPEST SLOPE GRADIENT ON ACCESS ROAD:
- [x] 0 to 5%
- [x] 6 to 10%
- [ ] greater than 10%

27. PATH OF ACCESS ROAD TO BE DETERMINED BY:
- [ ] Landowner
- [ ] Contractor
- [ ] Existing access road
- [x] Operator

30. APPROXIMATE LENGTH OF STEEPEST SLOPE ON ROAD:
- [x] 0 to 100 ft.
- [ ] 101 to 200 ft.
- [ ] 201 to 400 ft.
- [ ] greater than 400 ft.

28. GRADING AND EROSION CONTROL PRACTICE ON ROAD:
- [x] Diversions
- [ ] Filter strips
- [ ] Drains
- [ ] Riprap
- [ ] Open top culverts
- [ ] Water breaks
- [ ] Outsloping of road
- [ ] Pipe culverts
- [ ] Proposed alternative

31. HAS LANDOWNER RECEIVED A COPY OF THIS RESTORATION PLAN?
- [ ] Yes
- [x] No

The undersigned hereby agrees to implement all restoration operations identified on this form, and conform to all provisions of Section 1509.072 of the Ohio Revised Code, and to all Orders and rules issued by the Chief, Division of Mineral Resources Management.

Signature of Owner/Authorized Agent _____

Name (Typed or Printed) NICHOLAS PAPARODIS Date 9/20/2011

RESTORATION PLAN MUST BE SUBMITTED TO THE DIVISION IN DUPLICATE.

RECEIVED

SEP 26 2011

RECEIVED

JAN 31 2012

WELL COMPLETION RECORD (Form 8)

Ohio Department of Natural Resources
Division of Mineral Resources Management
2045 Morse Road, Bldg. H-3, Columbus, OH 43229-6693
Telephone: 614-265-6633 Fax: 614-265-7998

This report is due in duplicate 60 days after completion of the well. If the permit has expired and the well was not drilled, check the box below, sign on reverse side (Back), and return to our office within 30 days after expiration. ☐

1. Owner #: 2651	3. API #: 34-099-2-3171-00-00
2. Owner name, address and telephone numbers: D & L ENERGY, INC. 2761 SALT SPRINGS ROAD, YOUNGSTOWN, OH 44509 330-792-9524	4. Type of Permit: SALT WATER INJECTION NEW WELL
	5. County: MAHONING
	6. Civil Township: COITSVILLE
	7. Footage: 238' SL & 2219' EL, SECTION 12
8. Type of Well: WATER INJECTION - DISPOSAL	
9. X: 2538036 Y: 524970	21. Date drilling commenced: 11/10/2011
10. Quad: CAMPBELL	22. Date drilling completed: 11/30/2011
11. Section: 12. Lot:	23. Date put into production:
13. Fraction: 14. Qtr.Twp:	24. Date plugged if dry:
15. Tract:	25. Producing formation: Lower Paleozoic Injection (pending)
16. Allot:	26. Deepest formation: PRECAMBRIAN
17. Well #: 6	27. Driller's total depth: 9836
18. Lease Name: NORTHSTAR COLLINS (SWIW #13)	28. Logger's total depth: 9840
19. PTD: 9900 20. Drilling Unit: 10.38	29. Lost hole at _____ feet.

30. Type of tools:
☐ Cable ☐ Air Rotary
☐ Fluid Rotary ☑ Air/Fluid Rotary
☐ Cable/Air Rotary ☐ Service Rig
☐ Cable/Fluid Rotary ☐ Cable/Air Rotary/Fluid Rotary

31. Type of completion:
☐ Open Hole
☐ Through Casing
☐ Slotted Liner

32: Elevation:
Ground Level 1133
Derrick Floor 1149
Kelly Bushing 1149

33. Perforated intervals and number of shots: N/A

34. Name of Frac Company: N/A - SUPERIOR WELL SERVICES PERFORMED PUMP RATE TEST

35. Method of shot, acid, or fracture treatments, production tests, pressures, etc.:

SHOT:	ACID:	FRAC FLUIDS:	SAND:	PRESSURES (psi):
Lbs.	Gals.	Water (gals)	Lbs.	Breakdown
Qts.	Type	Water (bbl)	Sks.	ATP
Type	Percent	CO2 (tons)		ISIP
		N2 (mscf)		5 min. SIP
				Avg. Rate

METHOD OF FLUID CONTAINMENT

FLUIDS:	PIT:	FRAC TANK:
Swab	☐	☐
Flowback	☐	☐

DATE TREATED: _____

36. Amount of initial production per day:

		(MCF.)		(Bbls.)		(Bbls.)
Natural:	Gas		Oil		Brine	
After Treatment:	Gas		Oil		Brine	
SERC Data:	Number of Tanks:		Maximum Storage Capacity of all Tanks (bbls.)			

37. Casing and tubing record: Please indicate which is used (cement or mudding)

Type	Size	Feet Used in Drilling	Amount of Cement or Mud	Feet Left in Well
Conductor/Drive Pipe:	13 3/8"	80	85 sacks	80
Surface:	9 5/8"	1078	430 sacks	1078
Intermediate:				
Production:	7"	8440	75 sacks	8440
Tubing:	4 1/2"	8540		8540

Comments: 7" CSG HUNG & CUT WITH WEATHERFORD ACP & DV TOOL

38. Name of drilling contractor: UNION DRILLING COMPANY

39. Type of electrical and/or radioactivity logs run: *(all logs must be submitted)* COMPENSATED Z DENSILOG/NEUTRON/GR CALIPER, RTEX/GR/CAL, GR/CCL

40. Name of logging company: BAKER ATLAS / APPALACHIN WELL SERVICES

DIVISION USE ONLY

Log Submitted: (Y) N
Confidential: (Y) / N

FRAC DATA SUBMITTED:
Pressure/Rate Graph ☐
Record ☐
Invoice ☐

Well Class: SWIW

FORMATION	TOP	BASE	Shows of oil, gas, fresh water, or brine; indicate depth or interval	REMARKS
Freshwater Strata				
Glacial Deposits				
Coal Seams				
1st Cow Run				
Buell Run				
2nd Cow Run				
Salt Sand				
Maxton Sand				
Keener Sand				
Big Injun Sand				
Squaw Sand				
Mississippian Shale				
Weir Sand				
Berea Sand	580	650		
Bedford Shale				
2nd Berea				
Ohio Shale	650	3610		
Gantz				
Thirty Foot				
Gordon				
Cinnamon				
Marcellus	3610	3635		
Big Lime	3635	4140		
Sylvania				
Oriskany				
Bass Island				
Salina	4140	4210		
Salt Section	4210	4895		
Newburg				
Lockport	4895	5365		
Little Lime				
Packer Shell	5365	5400		
Stray Clinton	5400	5440		
Red Clinton	5480	5500		
White Clinton	5510	5560		
Medina	5560	5650		
Queenston	5650			
Utica	7280	7580		
Trenton	7580			
Black River	7755	8215		
Gull River	8215	8278		
Glenwood Shale				
Knox Unconformity	8355			
Beekmantown	8355	8550		
Rose Run	8550	8690		
Trempealeau/Copper Ridge	8550	8685		
"B" Zone	8885	9052		
Krysik				
Kerbel				
Conasauga	9052	9555		
Rome				
Mt. Simon	9555	9798		
Granite Wash	9798	9830		
Middle Run				
Granite	9830	9834		

I certify that the above information is true and correct, to the best of my knowledge.

(SIGNATURE) (DATE) 1/26/2012

LARRY SMYERS (NAME typed or printed)

GEOLOGIST (TITLE)

D & L ENERGY, INC. (REPRESENTING)

RECEIVED

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33. Perforated intervals and number of shots: N/A

34. Name of Frac Company: N/A - SUPERIOR WELL SERVICES PERFORMED PUMP RATE TEST

35. Method of shot, acid, or fracture treatments, production tests, pressures, etc.:

SHOT: Lbs. _____ Qts. _____ Type _____

ACID: Gals. _____ Type _____ Percent _____

FRAC FLUIDS: Water (gals) _____ Water (bbl) _____ CO2 (tons) _____ N2 (mscf) _____

SAND: Lbs. _____ Sks. _____

PRESSURES (psi): Breakdown _____ ATP _____ ISIP _____ 5 min. SIP _____ Avg. Rate _____

METHOD OF FLUID CONTAINMENT

FLUIDS:	PIT:	FRAC TANK:
Swab	☐	☐
Flowback	☐	☐

DATE TREATED: _____

36. Amount of initial production per day:

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Gordon				
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Salina	4140	4210		
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