COVER

TO:

Clerk of the Environmental Appeals Board
U.S. Environmental Protection Agency
1201 Constitution Avenue, NW
WJC East, Room 3334
Washington, D.C. 20004
PHONE # 202-233-0122

November 21, 2014

FROM:

Mr. Randall R. Baird
1273 Highland Street Extension
DuBois, Penna. 15801-4543
PHONE # 814-583-7180
EMAIL: fairyaw08@windstream.net

I, Randall R. Baird, am submitting this appeal to rescind the issuance of a class II-D disposal injection well, PERMIT # :PAS2D020BCLE, Zelman # 1, Windfall Oil and Gas Inc., located at Tower Lane, DuBois, Pa. 15801. I am submitting this document on behalf of myself, my wife, Joanne and my son Randall Jr. Address, phone number and email can be found above and is the same for all listed.

I commented at the public hearing and submitted written comment to the EPA. I have also maintained word and page limits for this document.

The definition of "Constitution" is, "A law determining the fundamental political principles of a government". In the Pennsylvania Constitution Article I, Section 27 it states: "The people have a right to clean air, pure water, and the preservation of the natural, scenic, historic and esthetic values of the environment".

The proposed injection well is not only an infringement on our clean air, through the frack tank exhausts while being filled and the truck diesel fumes, but it is also an infringement on the esthetic values of our village/neighborhood, not to mention a daily threat to our clean well water.

1). In the "Response to Comments", Section 1, page 2, the EPA states that "The issuance of this permit does not authorize any invasion of property rights or any infringement of state or local law or regulations".

Since the Pennsylvania Constitution is a State Law how/why is the EPA issuing this permit?

This neighborhood has already been negatively impacted and the frack tankers haven't even started to roll in yet. Neighbors could not sell their home and another could not sell his land because of the prospects of this "catastrophe waiting to happen" being placed here. Who, in their right mind, would want to live in this neighborhood under the pressure of having their water contaminated on a daily basis, living over a "brown field" and all the other negatives that go along with an injection well in a residential neighborhood. Even EPA's own Karen Johnson agreed with a Penn State professor at a recent oil and gas seminar at the Penn State Campus DuBois when he said that "injection wells should not be located in a residential neighborhood". Ms Johnson was in attendance there.

Local government solicitors, and others have instructed us to seek legal council for loss of property values and disruption of our lives and lifestyle should this project become a reality. The class has done that and found some positive avenues to pursue should the need arise.

The permit should be rescinded because of the Pennsylvania Constitution.....

2). Through out the entire "Response to Comment" language like: It is not anticipated, seems to, should be, typically, ultimately and most, are words and phrases that indicate to us that there is not a lot of merit in the response statements. Since I was once in the employ of Schlumberger Well Svc. I know from experience that this industry is a "best guess" a lot of the time, and that the risks associated with drilling, perfing and cementing are just that, a risk. But they are dealing with peoples well being here, their water, their lives and this risky business has no business being in such close proximity to a resedential area and 14+ private water sources.

3). "Response to Comments", Page 3, Section 4 states: "Ultimately, the permit limits injection to the Huntersville Chert/Oriskany formation". Yet in Section 11, Page 13 it is stated that "UIC regulations actually permit the fracturing of the confining zone adjacent to the injection zone if, as in this case, it is not the confining zone closest to the lowermost USDW". This opens a whole new can of worms since we know that there are fractures that extend into the area of review from previously fracked wells that are located just feet outside the area of review and one inside the review area.(See well data attachment "A). In a report developed by the NETL, (National Energy Technology Labatory), U.S. Department of Energy, Page 9, it states that vertical well fracture growth will extend at least 750', which puts fractures from all of the outlying wells on the "Plat Map" inside the "Area of Review" and at different depth in the strata.(See Plat Map Attachment "B")

Since the lowermost USDW is considered to be 800' by the EPA, for our area, this means that the EPA feels it is ok for the injected fluids to travel anywhere upwards to the confining zone under the lowermost USDW, (800'). In a report developed by Resource Management Services Inc. it states that "fresh water" would not be encountered below 900 feet MSL. (See Attachment "E") Go figure. So, if the EPA regulations allow the fluid to travel upward to the lowermost USDW, what would the confining layer be and would this not allow waste fluids to enter strata where there are many voids, compromised casings and cementing from the old worked wells and plugged wells just beyond the quarter mile "Area of Review"? (See Attachment "A", well logs)

How can you possibly set casing depths and cementing requirements when the actual confining zone has not been identified?

I believe these facts to be sufficient evidence to rescind/deny this permit.

4). In Section 5, Page 4 of "Response to Comments" the EPA states, "In deciding whether to issue a UIC permit, the Region needs to consider a map of the "Area of Review" showing the following: Mines,(surface and subsurface), pertinent surface features, including "residences and roads".

First, there is no map depicting mines in the "Area of Review", yet the deep mines do exist. There are many of them in the "Area of Review". If this well is drilled into one of these mine shafts cementing back to the surface on any string below these shafts would obviously be impossible.

If the EPA requires a map of the "residences and roads" in deciding whether to issue this permit, as stated, then why will they not come out and do a visual inspection of this site to see what a dangerous and precarious location for an injection well this site actually is?

5). Response to Comments, Section 7, Page 6. "Under certain conditions, disposal of fluids through injection wells has the potential to trigger seismicity". Yes it does. We saw yet another example of it just this past week in the Kansas, Oklahoma, Texas area and yesterday again in Texas, and today in Oklahoma. "Earthquakes used to be almost unheard of in the prarie lands across these states", says one report. As injection of "slick water" ramps up, so does the incidence of earthquakes. Oklahoma recorded 150 quakes between Jan. and the start of May, 2014. There are many faults documented in the "Area of Review" for the proposed Windfall well.

At the public hearing we were told by one of EPA's geologists that the geology of eastern Ohio was very similar to the geology here. That was before the earthquakes there, that were caused by the injection of frack waste. Now we are being told that our geology here is different than that found in eastern Ohio. Ohio ODNR said that there quakes were likely caused by the driller hitting an unmapped fault. Fact being that no one knows what is down there for sure, and that includes exactly where faults are located or how many there are in our area. The statement on Page 7, Section 8 Response to Comments, "Faults appear to be localized and non-transmissive", is yet another best guess.(See attachment "C") Your playing with our lives here, literally. Again, who would like to buy my house and property?

The statement in the "Response to Comments" on Page 9, Section 8 makes no sense to me regarding seismicity. It talks about the removal of 67,115 barrels of brine in 31 years from well # 20333.(See attachment "B" for well location). It goes on to state that this removal caused no seismic activity? They will be injecting more frack fluid in 3 months in this injection well than was drawn from well # 20333 in 31 years. What is the significance here?

6). In Section 6, Page 9 of the "Response to Comments" it states: "Windfalls permit requires a yearly fall-off test". Pressure fall-off testing should be conducted quarterly if the well is located in a setting where fresh water sources are at risk.

Why are there no monitoring wells required for this permit?

The Seneca well permit for an injection well in Elk County, Pa., required Seneca to have several monitoring wells. There are no residents or water wells within a mile of the Seneca injection well. Why does the Windfall permit not require monitoring wells when it is being proposed in a populated community with many private water sources at risk inside the "Quarter Mile Review Area"? What parameters are used for the determination and location of monitoring wells at an injection well site?

7). Page 12, Section 10 in the Responses points out that the 2 injection wells located in Clearfield County Pa. have been in operation for years. One of the wells has injected 1238 barrels per month for 25 years and the other 5772 barrels per month for 9 years. What they didn't point out was the fact that one of these wells began to have a hard time injecting at the permitted pressure so they jacked the pressure up causing a failure that was only found out during an inspection. These wells are located at a very remote site, so any contamination to aquifers or the landscape in the area would be hard to detect. They did pay a $161,000 fine.

I cannot see any comparison to the proposed Windfall well and these wells since Windfall would be injecting 30,000 barrels per month, 5 times the highest injection rate for the EXCO wells. Since they did jack the pressure up to continue injecting into the HuntersvilleChert/Oriskany, same stratum targeted for the Windfall well, this might be worth taking note of since the EXCO wells are also located in Clearfield County.

8). Page 8, Section 11 "Response to Comments": "The produced fluid being injected is very similar to the brine fluid that is already in the HuntersvilleChert/Oriskany formation".

This is not a true statement. The produced fluid is laced with thousands of pounds of toxic

chemical additives and hydrochloric acid. It is designed to disssolve rock and open fractures in the marcellus layer.

What will keep it from desolving rock and opening or expanding fractures and fissures as it is pressurized and pumped under our village? What will keep it from finding its way to clean water aquifers in the formations found here, especially since this area has already been extensively fractured by the drilling industry in years past and the strata would have many fractures and fissures who knows where?(See Attachment "D" for fault layout) & (Attachment "A" for well frack and perf data)

9). Section 12, Page 14, "Response to Comments": "Stimulation is a short term activity".

Why is over pressurizing needed if the HuntersvilleChert/Oriskany is such a permeable target formation? How can it be known for sure that this overpressurizing is not fracturing confining layers or creating new pathways and opening existing fractures?

Here again, "Typically, the vertical extent of such fractures is limited", Page 14, Section 12 of Responses says. Limited to what? We are talking about overpressurizing

an injection well. Does that mean that this overpressurizing creates fractures?

Why then, on Page 17 of Section 14, "Response to Comments", does it say that the permit does not allow the injection pressure to exceed the injection formations fracture pressure and thereby prevents fracturing that would allow fluid to migrate out of the injection zone? What is the formations fracture pressure? How often is the operator allowed to "stimulate" overpressurize the well?

10)."Response to Comments", Page 16, Section 13. "There are no documented wells located within the one quarter mile area of review that will allow injected fluids to move upward".

There is one well within the quarter mile, at 450 feet from the injection site, that could possibly carry fluids to aquifers even though it is at 3576ft. Voids between strings would allow fluid flow upward to clean water aquifers through previously fractured strata that was compromised within the "Area of Review" by the fracking of deep wells on the perimeter of the review area.(See Attachment "B") Plat Map for well locations. Reference the earlier statement about fractures growing to 750' by NETL, U.S.DOE.

The deep wells on the perimeter of the "Area of Review" are also very capable of carrying the toxic fluids upward. These wells were fracked, as was stated before, and can be seen around the edge of the quarter mile "Well Location Plat" (Attachment "B"). These wells would also have compromised casings and cementing and the plugged ones are very suspect as well due to age. This fluid will not stop flowing at precisely the end of the quarter mile. Any pore space down there that is now devoid of gas would have long since been inundated with brine. So it is not like the pore space down there is as empty as one might think. (See Well Logs Attachmnet "A") for fracking and age data.

11)."The issuance of this permit does not convey property rights or mineral rights" so says Section 1 of Page 2 in the "Response to Comments". If that is the case then Windfall may be trespassing on someones right to develop their marcellus shale in the "Area of Review".

Wouldn't fracking the marcellus in the vicinity of an injection well be unlawful or against EPA regulations? Wouldn't Windfall be in violation of anothers mineral rights?

Our neighborhood was recently surveyed for marcellus drilling. The surveyors stated that they were performing the survey so all would be ready for marcellus drilling. They even ask, "where would be a good location for a well pad"?, if you can believe that. It's not a wonder to us why this industry continues to shoot itself in the foot. This proposed injection well has garnered so much negative publicity for an already beleaguered industry, I can't believe it is still being shoved down the throats of the residents here.

12).Section 16, Page 18. Concerning the "Resource Conservation and Recovery Act". I find it absolutely appalling that 2 greedy politicians could manipulate regulations to dupe the public with the "halliburton loophole" and place this known hazardous, toxic, radioactive waste in our back yards for personal gain. Sickening, sinful, criminal.

The statement on page 19 paragraph 1 of "Response to Comments", pretty much nails this crap down as "Hazardous" and "NOT" "Residual" when it says, "When these constituents are discharged to streams and rivers they can pose a serious risk to fish and other aquatic organisms living in the stream as well as contribute to serious health effects for people who obtain their drinking water from these streams and rivers".

If that dosen't describe "Hazardous Waste" then I don't know what does.

13). Not only is this cancerous fluid going to be under our homes but it may also end up on the ground around our homes.(See Attachments "E" and "F")

The original UIC Permit Application points out that the injection flow pattern for this toxic brew is directly under the residential area of our village. Furthermore, the recharge area for our water wells is in the exact location the driller proposes for this injection well.(See "CONCLUSIONS", Page 6, Attachment "E") Any major disturbance of this area, as will occur for the construction of this well, will have a negative effect on our water wells without the added threat of poisonous fluid being injected there also. Find the ground water flow chart, (Attachment "F").

We don't care how many safety features are supposedly built into the plans for this toxic well. There are many reports starting to show up, from around the country, about this toxic cancer causing frack waste coming to the surface and entering aquifers. Also, many earthquakes are being reported as a result of injecting these fluids into the earth. All this is happening where it was permitted and supposedly safe. You only have to research this topic to find legitimate reports on it's dangers and the many failures that have happened and are happening as time goes forward. (See Attachment "C") We, in the Village of Highland Street Extension, DuBois Pa., don't want to be one of these statistics from the sacrifice zone.

Further, this is an absolute horrible location for an injection well. Spills, accidents and failures never happen in confinement areas. When the water is contaminated it's over, dosen't matter how many warning systems you have in place to tell you've had a failure. This man and his company are putting all of us "in harms way" in more ways than one.

All the residents of Highland Street Extension and the surrounding communities are asking that the permit for the proposed injection well in our back yards be rescinded/denied.

Regards,
Mr. Randall R. Baird and Family

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 24th day of November, 2014, a "Request for Appeal" of a Class II-D injection well permit #PAS2D020BCLE, was filed via United States Postal Service Priority Express Mail, with tracking and delivery notification to, "EAB Clerk of the Board, U.S. Environmental Protection Agency, 1201 Constitution Ave. NW, WJC East, Room 3334, Washington, DC, 20004 and was also served on the following:

Permitting Authority:

Shawn M. Garvin
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA. 19103-2029

Applicant-Permitee:

Windfall Oil and Gas
63 Hill Street
Falls Creek, Pa. 15840

Randall R. Baird
1273 Highland St EXT
DuBois, Pa. 15801

fairway08@windstream.net
814-321-5870

DM-OG 4-56

7199'

Attachment "A"

1,300' S 41°05'00"
2,000' W 78°45'00" (F)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF MINES AND MINERAL INDUSTRIES
OIL AND GAS DIVISION

7/28/61

033-20336

QUADRANGLE: DuBois "W" ☒ 7½' ☐ 15'

PERMIT NO. CLE 336

MAP REFERENCE: 1350 NL 2100 EL

KIND OF WELL: Gas
(Oil, Gas, Other)

WELL RECORD

COMPANY: Lee E. Minter

ADDRESS: 9 Florence St. Bradford, Pa.

FARM T W Chapman (Little Times Square Acres 8001) WELL(FARM)NO. 1 CO. SERIAL NO.

ELEVATION: 1544 LEASE:

TOWNSHIP: Brady COUNTY: Clearfield

DRILLING COMMENCED: 12/20/60 DRILLING COMPLETED: 1/13/61

PRODUCTION: 1,200 MCF

ROCK PRESSURE: 2229 psig 27½ hrs

WELL TREATMENT: (Shooting, Acidizing, Fracturing Etc.)
Hydrofrac 2/2/61

RESULTS AFTER TREATMENT: 5,876 MCF

ROCK PRESSURE AFTER TREATMENT: 2,069# 66Hrs

REMARKS:

Size of Casing and Tubing	Used in Drilling	Left in Well	Packers: Type, Size and Depth
20"	19.60'	19.60'	
13 3/8"	218.08'	218.08'	
9 5/8"	1190.03'	1190.03'	
5½"	7199'	7199'	

PERFORATIONS AT:

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date)

20" 19.60' 15 sacks 12/20/60

13 3/8" 218' 215 Sacks 12/21/60

9 5/8" 1190' 60 Sacks 12/24/60

5½" 7199' 150 sacks 1/10/61

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Sand	0	22				
Sand & shale	22	143			82' fresh	
White sand	143	173				
Coal	173	176				
Sand	176	180				
Sand & shale	180	197				
Coal	197	203				
Sand	203	211				
Sand & shale	211	360				
Coal or black shale	360	380				
Sand	380	395				
Coal or black shale	395	410			405' fresh	
Sand	410	470				
Sand & shale	470	595				
Sand	595	820				
Red Rock	820	842				

(over)

ATTACHMENT A

14,500' S 41° 07' 30"
550' W 78° 45' 00"
(3)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF MINES AND MINERAL INDUSTRIES
OIL AND GAS DIVISION

9370'

033-20341-P
Coal seams un-workable
~~CCE-341-P~~

JAL ANGLE: DuBois ☐ 7½' ☒ 15'
Sec. "F"

PERMIT NO. ~~No permit issued~~

AP REFERENCE: 29,650' S/NL
550' W/EL

KIND OF WELL: Gas
(Oil, Gas, Other)

WELL RECORD

OMPANY: Belmont Oil Corporation

DDRESS: P. O. Box 354, Bradford, Penna.

ARM Josephine Carlson, et al ACRES 48

ELL FARM NO. 1 GEO. SERIAL NO. F-128
Sylvania #6972

LEVATION: 1644' RT LEASE: EPaL-9673

OWNSHIP: Brady COUNTY: Clearfield

RILLING DRILLING
OMMENCED: 11/1/60 COMPLETED: 11/26/60

RODUCTION: 4,150,000 cu. ft.

OCK PRESSURE: 2839 psig. 20 hrs.

ELL TREATMENT: (Shooting, Acidizing, Fracturing Etc.)

1/25/60 - Halliburton hydrafrac from 7299' -
o 7365' with 11,900 gal. frac fluid; propping
gent 9,000# 20-40 sand, 3,500# 10-30 sand;
,000 gal. MCA acid; 500# WG-4 gel agent;
00# GW-1 breaker agent; 30 gals. Howco
uds; 3,500# sand; Max. pressure: 4500#.

SULTS AFTER TREATMENT: 15,000,000 cu. ft.

CK PRESSURE AFTER TREATMENT: 2810# - 72 hrs.

Size of Casing and Tubing	Used in Drilling	Left in Well	Packers: Type, Size and Depth
13 3/8"	228.22'	228.22'	
8 5/8"	1312.00'	1312.00'	
5 1/2"	7370.22'	7370.22'	
			PERFORATIONS AT:

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date)

11/6 - Set 13 3/8" drive pipe @ 230' with 175 sacks of Regular cement.

11/9 - Set 8 5/8" casing @ 1320' with 375 sacks of Regular cement.

11/18 - Set 5 1/2" casing @ 7299' with 125 sacks of Regular cement and 40 sacks of Aquagel.

MARKS: Gas Tested At:
7355' - 2,500,000 cu. ft.
7360' - 3,200,000 cu. ft.
7365' - 4,150,000 cu. ft.

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
lay	0	40				
ıale	40	107			107' (fresh)	
ndy Shale	107	186				
al	186	188				
ıale	188	243			200'(fresh)	Set 13 3/8" @ 230'
nd - Water Sand	243	248				
nd & Shale	248	268				
nd	268	280			275'(fresh)	
ale	280	304				
nd	304	308				
ale	308	329				
al	329	331				

(OVER)

ATTACHMENT A

PENFIELD G 266

DM-OG-4-56

4637'

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF MINES

1,990' S 41°05'00"
10,200' W 78°42'30" (4)

Oil and Gas Division
LUTHERSBURG ~~HARRISBURG~~

033-20325-P

QUADRANGLE: Penfield ☑ 7½' ☒ 15' PERMIT NO. ~~CHB 325-P~~

MAP REFERENCE: 10S 17W S64 W117 KIND OF WELL: ~~Gas~~ Dry
(Oil, Gas, Other)

WELL RECORD

	Size of Casing and Tubing	Used in Drilling	Left in Well	Packers: Type, Size and Depth
COMPANY: New York State Natural Gas Corporation				
ADDRESS: #2 Gateway Center, Pittsburgh 22, Pa.	13-3/8"	60'	60'	
FARM John R. Potter ACRES 68	9-5/8"	1156'	294'	BHS @ 1152
WELL(FARM)NO. #1 CO. SERIAL NO. N-782	Vent 2"		274'	
ELEVATION: 1627.80 LEASE: 58357				
TOWNSHIP: Brady COUNTY: Clearfield				
DRILLING COMMENCED: 8/7/60 DRILLING COMPLETED: 10/13/60				
PRODUCTION: Dry Hole - Plug and Abandon				PERFORATIONS AT:
ROCK PRESSURE: ____ psig ____ hrs.				
WELL TREATMENT: (Shooting, Acidizing, Fracturing Etc.)				

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date

8/8/60 - 13-3/8" cem. w/50 sacks

8/11/60 - 9-5/8" cem. @ 1152' w/50 sacks cem. and 15 sacks aquagel

RESULTS AFTER TREATMENT:

ROCK PRESSURE AFTER TREATMENT:

REMARKS:

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Cellar	0	18				
Sand & shale	18	210			FW 50	
Lime & shale	210	220				
Sand & shale	220	255				
Coal or shale	255	265				
Sand	265	319				
Sand & shale	319	409				
Coal	409	415				
Sand & shale	415	2885				
Shale & sand	2885	3295				
Sand & shale	3295	4130	3324(show)			
Shale & sand shells	4130	4515				
Sand & shale	4515	4922				
Shale & sand	5060	5255				
and & shale	5255	5555				
ale & sand	5555	5907				

(Over)

ATTACHMENT A

PENFIELD D 272

M-OG-4-56

File under DuBois Nat'l Bank

7335'

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF MINES

Oil and Gas Division
HARRISBURG

QUADRANGLE: Penfield [X] 7½' [ ] 15'

PERMIT NO. ~~CLE-999~~ 083-20333

MAP REFERENCE: 9S 17W S63 W117 & 118

KIND OF WELL: GAS (Oil, Gas, Other)

WELL RECORD

COMPANY: New York State Natural Gas Corporation

ADDRESS: 2 Gateway Center, Pgh. 22, Penna.

FARM * H. E. Ginter Est. ACRES 172

WELL(FARM)NO. 1 CO. SERIAL NO. N-796

ELEVATION: 1642.34 LEASE: 60986

TOWNSHIP: Brady COUNTY: Clearfield

DRILLING COMMENCED: 12-1-60 DRILLING COMPLETED: 12-23-60

PRODUCTION: 10,504,000 cubic feet

ROCK PRESSURE: 2340 psig 70 hrs.

WELL TREATMENT: (Shooting, Acidizing, Fracturing Etc.)
12-22-60-Fractured w/20,000 gals. water, 200 lb. gel, 1,000 gal acid and 20,000 lb sand. Breakdown pressure 3000 lbs; maximum pressure 3750 lbs. Original open flow of 48,000 cubic ft. in chert and 525,000 cubic ft. in Oriskany increased to 10,405,000 cubic ft. A/F. R.P. b/f 2450 lbs 24½ hrs. dead weight.

RESULTS AFTER TREATMENT:

ROCK PRESSURE AFTER TREATMENT:

	Size of Casing and Tubing	Used in Drilling	Left in Well	Packers: Type, Size and Depth
	13 3/8"	96'	96'	
	9 5/8"	1285'	1285'	BHS @ 1287
	7"	7335'	7335'	BHS @ 7267
				PERFORATIONS AT:

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date

12-3-60 - 13 3/8" cem. w/90 sax

12-7-60 - 9 5/8" cem. @ 1287 w/50 sax cem & 20 sax aquagel

12-16-60 - 7" cem @ 7267 w/125 sax

REMARKS: * Well Permit Request and all initial Records Referred to this Well as "DuBois Deposit National Bank Trustee Etal". They are in fact Successor Trustee Under the Henry E. Ginter Deed of Trust. In the Interest of Brevity, We have Established and are Using the Farm Name as Recorded Above.

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Surface	0	5				
Sand & shale	5	105				
Shale & Sand	105	150				
Sand & Shale	150	340				
Coal	340	345				
Sand & Shale	345	375				
Shale & Sand	375	468				
Coal	468	474			458	
Shale & Sand	474	532				
Sand & Shale	532	735				
Sand	735	785				
Sand & Shale	785	1720				
Shale & Sand	1770	2165				
[illegible] & Shale	2165	4310	3385-92 (Show)			
[illegible]e & sand	4310	5170				
Sand & Shale	5170	5405				

(Over)

ATTACHMENT A

DM-OG-4-56

7305' Pennsylvaney – Driftwood Field Halvetia Pool

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF MINES

1,850' S 41° 05' 00"
11,050' W 78° 42' 30" (4)

Oil and Gas Division
HARRISBURG

QUADRANGLE: ~~Penfield~~ LUTHERSBURG ☑ 7½' ☒ 15'

033-20327

PERMIT NO. ~~GIB-327~~

MAP REFERENCE: 9S 17W S63 W117

KIND OF WELL: Gas (Oil, Gas, Other)

ATTACHMENT A

WELL RECORD

COMPANY: New York State Natural Gas Corporation

ADDRESS: #2 Gateway Center, Pittsburgh 22, Pa.

FARM John R. Potter ACRES 68

WELL(FARM)NO. 2 CO. SERIAL NO. N-790

ELEVATION: 1640.60 LEASE: 58357

TOWNSHIP: Brady COUNTY: Clearfield

DRILLING COMMENCED: 8/31/60 DRILLING COMPLETED: 9/29/60

PRODUCTION: 30,370,000 cubic feet

ROCK PRESSURE: 3293 psig 4 days.

WELL TREATMENT: (Shooting, Acidizing, Fracturing Etc.)
9/27/60 - Fractured w/20,500 gals. water, 1,000 gal. MCA, 150 lbs. gel and 20,000 lbs. sand. Breakdown pressure 2400 lbs.; maximum pressure lbs; minimum pressure. 2350 lbs.; final pressure 3800 lbs. Original open flow of 7,312,000 cubic feet increased to 30,370,000 cu ft. a/f Rock pressure b/f 3318 lbs. in 11 days

RESULTS AFTER TREATMENT:

ROCK PRESSURE AFTER TREATMENT:

Size of Casing and Tubing	Used in Drilling	Left in Well	Packers: Type, Size and Depth
13-3/8"	59'	59'	
9-5/8"	1251'	1251'	BHS @ 1248'
7"	7305'	7305'	BHS @ 7234'

PERFORATIONS AT:

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date

8/31/60 - 13-3/8" cem. @ 70' w/50 sacks

9/4/60 - 9-5/8" cem @ 1248' w/50 sacks cem., 15 sacks aquagel, & 25 sacks quadroflos

9/13/60 - 7" cem. @ 7234' w/125 sacks.

REMARKS:

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Surface	0	15				
Sand & shale	15	143			FW 75	
Red shale	143	146				
Sand & shale	146	205				
Coal	205	209				
Sand & shale	209	217				
Shale & sand	217	303				
Coal or black shale	303	306				
Shale & sand	306	320				
Shale	320	340				
Sand	340	550				
Shale & sand	550	580				
Sand	580	650				
Shale & sand	650	692				
Coal	692	733				
Red shale	733	735				

(Over)

R-OG-4:71

3432'
Salem Pool
Dor
Me

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
DIVISION OF OIL AND GAS
PITTSBURGH, PENNSYLVANIA 15222

Office Use Only: C

Dorth

WELL RECORD

CSD

*[redacted]5
900' S 41°05'00"
9150' W 78°40'30"
[illegible] (4)

900 S. 41°05'
20,850 W 78°40'

PERMIT NO. CLE-20553

PROJECT NO. ____

TYPE OF WELL Gas Production (G) 66

ATTACHMENT A

WELL OPERATOR	Consolidated Gas Supply Corp.				
ADDRESS	445 West Main St., Clarksburg, WV.			ZIP	26301
FARM NAME: DuBois Deposit National Bank Trustee		FARM NO. #2	SERIAL NO. WN-1323	ACRES	172
TOWNSHIP:	Brady	COUNTY:	Clearfield		
DRILLING COMMENCED	5-24-74	DRILLING COMPLETED	6-6-74		
ELEVATION	1572'	QUADRANGLE	Penfield	☒ 7 ½'	☒ 15'

Casing and Tubing Record

Pipe Size	Amt. In Well	Material Behind Pipe Cement (Sks.)	Gel (Sks.)	Packer Type	Size	Depth	Date Run
16	13						5-24-74
11 3/4	187	100		Guide	11 3/4	187	5-24-74
8 5/8	1043	50	5	Guide	8 5/8	1038	5-26-74
4 ½	3388	275		Float	4 ½	3388	5-30-74

T.D.	D.D.	[illegible]	[illegible]	[illegible]	Lease
3432	X	3307	D	X /	/

Perforation Record Date	Interval Perforated From	To	Stimulation Record Date	Interval Treated	Amt. Fluid	Amt. Sand	Injection Rate
6-5-74	2955	3001	6-5-74	2955-3001	600 bbl	30,000#	32.8 bpm.
"	3282	3307	"	3282-3307	571 bbl	30,000#	35.1 bpm.

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Oil & Gas Division

Natural Open Flow: 84,000 cu. ft. Natural Rock Pressure: N.T. , hrs. days

After Treatment Open Flow: 1,592,000 cu. ft. After Treatment Rock Pressure 1242 , 14 ~~hrs.~~ days

REMARKS: No show of gas was recorded on drillers log during rotary drilling. A. show of gas was evident afte: landing 4½" casing - test 84,000 cu. ft. Log evaluation indicated potential production in the intervals shown under " stimulation reoord" casing was perforated and these zones were fractured.

[signatures]

Formation on Reverse Side

DTB 012375

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
DIVISION OF OIL AND GAS
PITTSBURGH, PENNSYLVANIA 15222

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Inside Area of Review

ATTACHMENT A

PSO'S 41°05'00" 11000'W 78°40'30" LUTHERSBURG (41)

Salem Pool / WELL RECORD

PERMIT NO. CLE-20597

PROJECT NO.

3576' TYPE OF WELL Gas Production

81

OIL OPERATOR	Consolidated Gas Supply Corp. TELEPHONE NO. 304-623-3611
ADDRESS	445 West Main St., Clarksburg, WV. ZIP 26301
FARM NAME	DuBois Deposit National Bank FARM NO. 3 SERIAL NO. WN-1504 ACRES 172
OWNSHIP	Brady COUNTY Clearfield
DRILLING COMMENCED	6-18-76 DRILLING COMPLETED 6-24-76
ELEVATION	1672' QUADRANGLE ~~Luthersburg~~ PENFIELD [X] 7½' [X] 15'

CASING AND TUBING RECORD

Pipe Size	Amount In Well	Material Behind Pipe Cement (Sks.)	Material Behind Pipe Gel (Sks.)	Packer Type	Packer Size	Packer Depth	Date Run
11 3/4	309	185 to surface		Guide	11 3/4	307 G.L.	6-19-76
8 5/8	1207	290 to surface		Guide	8 5/8	1200 G.L.	6-22-76
4 1/2	3547	275		Float	4 1/2	3526 K.B.	6-25-76
		T.D. 3576	P.B. 3412	Cable O D	G X	Lease / /	
K measurement 11 above G.L.							

Perforation Record

Date	Interval Perforated From	To		Date	Interval Treated	Amount Fluid	Amount Sand	Injection Rate
7-9-76	2587	2595	8	7-9-76	2587-95	400 bbl.	20,000#	
7-9-76	2812	2817	5	7-9-76	2812-17	400 bbl.	20,000#	
7-9-76	2943	2993	50	7-9-76	2943-93	400 bbl.	20,000#	
7-9-76	3402	3412	10	7-9-76	3402-12	400 bbl.	20,000#	

Stimulation Record (Fracking)

NATURAL OPEN FLOW N.T. NATURAL ROCK PRESSURE N.T. , hrs. days

AFTER TREATMENT OPEN FLOW 581 MCF AFTER TREATMENT ROCK PRESSURE 1180# , 16 hrs. days

REMARKS:

RECEIVED

AUG 3 1 1976

PA. GEOLOGIC SURVEY
Oil & Gas Division

Zone P paid

FORMATION ON REVERSE SIDE

Pennsylvania—DEPARTMENT OF ENVIRONMENTAL RESOURCES
Driftwood Field DIVISION OF OIL AND GAS
PITTSBURGH, PENNSYLVANIA 15222

C

Salem Pool
Devel
14315 41°01'30"
10350 W 78°49'30"
Lost Hill Quad (1)

WELL RECORD

3400'

PERMIT NO CLE-20626-P

PROJECT NO.

TYPE OF WELL Gas Production

85

WELL OPERATOR	Consolidated Gas Supply Corp.
ADDRESS	445 West Main St., Clarksburg, WV. ZIP 26301
FARM NAME	DuBois Deposit National Bank FARM NO 4 SERIAL NO WN-1573 ACRES 172
TOWNSHIP:	Brady COUNTY: Clearfield
DRILLING COMMENCED	4-28-77 DRILLING COMPLETED 5-2-77
ELEVATION	1661' QUADRANGLE ~~Luthersburg~~ PENFIELD. [X] 7½' [ ] 15'

Casing and Tubing Record

Pipe Size	Amt In Well	Material Behind Pipe Cement (Sks.)	Gel (Sks.)	Packer Type	Size	Depth	Date
11 3/4	253	150 sax. to surface		Guide	11 3/4	251 G.L.	4-29-77
8 5/8	1198	180 sax. to surface		Guide	8 5/8	1191 G.L.	4-30-77
4 1/2	3536	330 sax.		Float	4 1/2	3507 K.B.	5- 3-77
		TD - DI;		G		Lease	
		3547 —	3400	D	✓	1	
K.B. measurement 10		above G.L.					

Perforation Record

Date	Interval Perforated From	To
5-18-77	2682	2694
"	2825	2831
"	2934	2940
"	3092	3260
"	3391	(3400)

Stimulation Record

Date	Interval Treated	Amt Fluid	Amt. Sand	Injection Rate
5-18-77	2682-94	500 bbl	25,000#	
"	2825-31	500 bbl	25,000#	
"	2934-40	500 bbl	25,000#	
"	3092-3240	500 bbl	25,000#	
"	3391-3400	600 bbl	30,000#	

Natural Open Flow. 75,308 cu. ft. Natural Rock Pressure. N T. , ~~hrs~~ days

After Treatment Open Flow. 888,000 cu. ft. After Treatment Rock Pressure 1050# , 16 ~~hrs~~ days

REMARKS

RECEIVED
JUL 5 1977
PA GEOLOGIC SURVEY
Oil & Gas Division

6-23-77

Formation on Reverse Side

ATTACHMENT A

5500-PM-OG0002-DWG Rev. 09/2008

This is ONLY 1/4 mile !

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WELL LOCATION PLAT

DEP USE ONLY | Permit # | Project #

Denotes location of well on topo map.

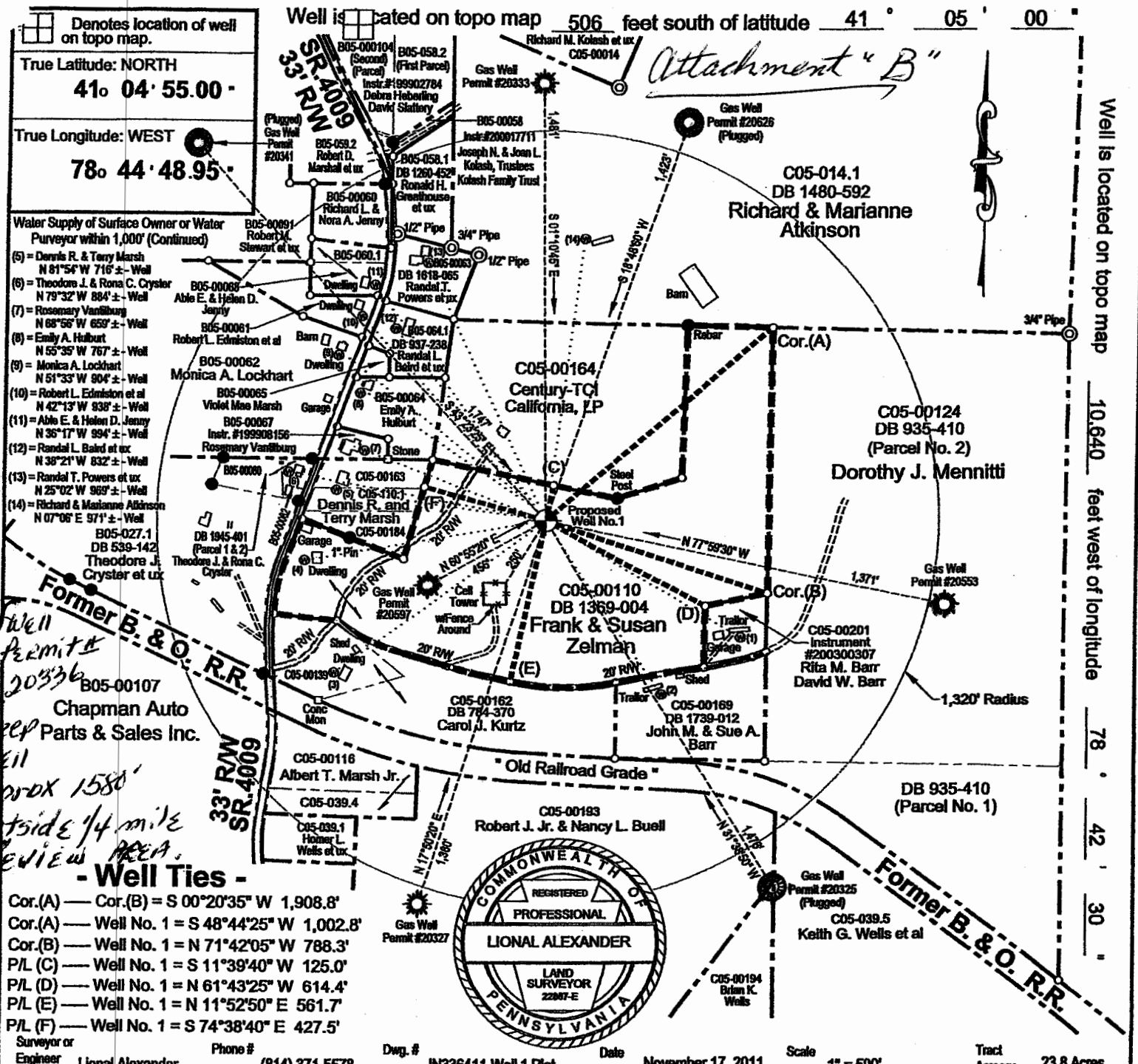
True Latitude: NORTH
41° 04' 55.00"

True Longitude: WEST
78° 44' 48.95"

Well is located on topo map 506 feet south of latitude 41 ° 05 ' 00 "

Well is located on topo map 10,640 feet west of longitude 78 ° 42 ' 30 "

Attachment "B"



- Well Ties -

Cor.(A) — Cor.(B) = S 00°20'35" W 1,908.8'
Cor.(A) — Well No. 1 = S 48°44'25" W 1,002.8'
Cor.(B) — Well No. 1 = N 71°42'05" W 788.3'
P/L (C) — Well No. 1 = S 11°39'40" W 125.0'
P/L (D) — Well No. 1 = N 61°43'25" W 614.4'
P/L (E) — Well No. 1 = N 11°52'50" E 561.7'
P/L (F) — Well No. 1 = S 74°38'40" E 427.5'

Well Permit # 20336
Deep Well
Approx 1580' Outside 1/4 mile Review Area.

Surveyor or Engineer	Phone #	Dwg. #	Date	Scale	Tract Acreage
Lional Alexander	(814) 371-5578	JN336411 Well 1 Plat	November 17, 2011	1" = 500'	23.8 Acres

Lat. & Long Metadata Method	Accuracy	ft. Datum	Elevation Metadata Method	Accuracy	ft. Datum	Survey Date
GPS	Submeter	NAD 83	Topo	10' ±	NVGD 88	June 15, 2011

Applicant / Well Operator Name	DEP ID#	Well(Farm) Name	Well #	Serial #
Windfall Oil & Gas	244615	Frank & Susan Zelman	1	

Address	County - Code	Municipality	Well Type
63 Hill Street, Falls Creek, Pa. 15840	Clearfield - 17	Brady Township	Gas

Surface Landowner / Lessor	USGS 7½ Quadrangle Map Name	Map Section	Surface Elevation
Frank & Susan Zelman	Luthersburg	4	1697 ft.

Target Formation(s)	Angle & Course of Deviation (Drilling)	Anticipated Total Depth
Chert / Oriskany	Vertical	TVD 7,500' TMD 7,500'

Surface Owner or Water Purveyor with a Water Supply within 1,000 ft.	Approximate Course and Distance to Water Supply	Owner, Lessee, or Operator of Workable Coal Seam	Name of Coal Seam Owned, Leased, or Operated
(1) = Rita M. & David W. Barr	S 58°54' E 772' ± - Well		
(2) = John M. & Sue A. Barr	S 33°39' E 715' ± - Well		
(3) = Carol J. Kurtz	S 53°38' W 881' ± - Well		
(4) = Frank & Susan Zelman	S 80°21' W 826' ± - Well		

"Subsurface Liquid Waste Disposal and its Feasibility in Pennsylvania" Attachment "C" Written by: "The Commonwealth of Pa Dept. of Environmental Resources Bureau of Geologic Survey"

These sequences may appear orderly (Fig. 1A) but they seldom are. Variations of rock types in changing depositional environments are often duplicated on a smaller scale within the large rock unit (Fig. 1B). A brief interruption in the supply of coarse sediment or the diversion of a distributary channel may result in deposition of a thin layer of clays. A severe storm may build up or tear down a sand spit or bar. The growth of a coral reef may entrap granular material on one side while excluding it on the other.

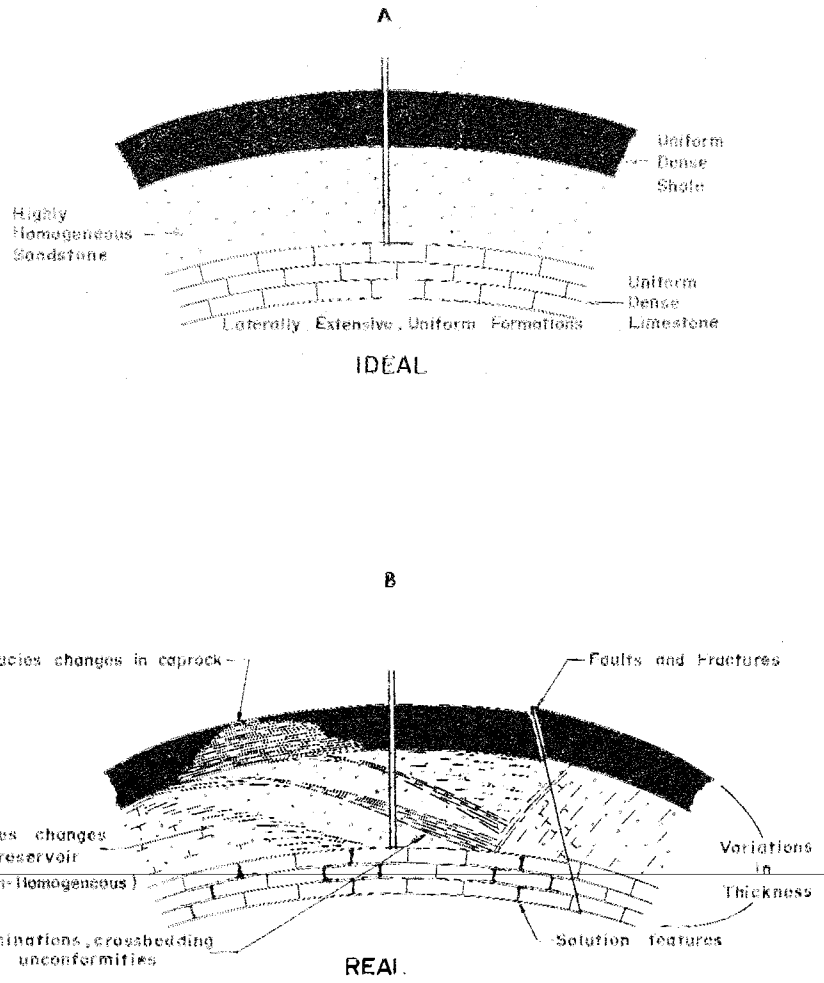


Figure 1. **Ideal vs. real subsurface conditions.**

Attachment "C"

Other agencies affect the deposition of sediments, either as a part of general shoreline shifts or independently. Streams or submarine currents may produce elongate, wandering depositional patterns following their channels or broad fan-shaped deposits of intricately intermixed sediments in deltaic areas. Submarine landslides may stir up sediments into a heavy aqueous suspension which flows down the continental slopes with astounding rapidity and force, carrying with it immense volumes of sediment.

A specific type of sedimentary rock, evaporites, of particular significance to disposal operations, results from the "drying-up" of ancient seas.

When evolution of the earth's crust cuts off the sources of fresh water and restricts the circulation of sea water, evaporation gradually concentrates the dissolved minerals until the brine becomes saturated and precipitation occurs. By this process thick accumulations of highly homogeneous and dense evaporites, notably salt, may form.

Lithification of Sediments

As they are buried and compacted, sediments become bonded together by friction, by the addition of other minerals as intergranular cement, or by intergrowth. They acquire a measure of coherence and rigidity and become rock. Most sedimentary rocks contain voids or pore spaces between their grains and crystals because a portion of the water in which the sediments were deposited is entrapped. Sometimes the grains are irregular in shape and strong enough to resist deformation during compaction, resulting in voids or pore spaces between grains or crystals.

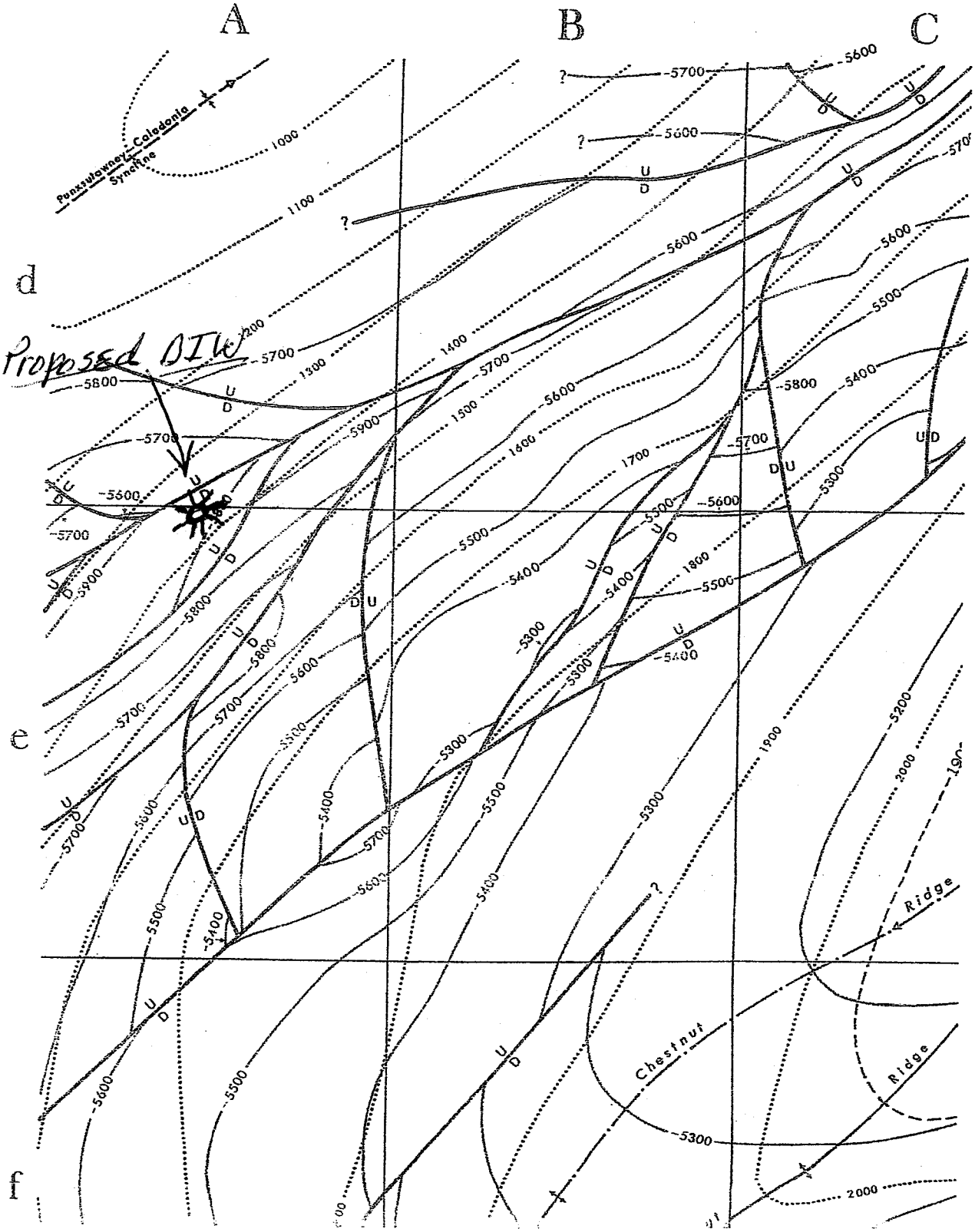
As the sediments become rigid they become capable of transmitting stress but also become susceptible to failure. Under the weight of accumulating load, the portion of the crust upon which the sediments are deposited may bend downward and result in compression, folding, fracturing and faulting. Even when relatively undisturbed, the rock may develop joints, parallel sets of nearly vertical fractures formed without movement.

If a portion of the rock is uplifted to the surface or near-surface, it becomes subject to erosion or chemical decomposition which may remove some of its constituents, redeposit others, and locally change the character of the rock. Deeper burial may result in further compaction and expulsion of native water, altering both the sediments compressed and those through or into which the expelled waters are displaced.

Attachment "D"

FAULTS in AREA of WELL

PENNSYLVANIA GEOLOGICAL SURVEY



Attachment "E"

CONCLUSIONS

This report describes the hydrogeologic investigation conducted by Resource Management Services, Inc. in order to address Attachments B, D and P for Windfall Oil & Gas Corporation's Underground Injection Control Permit Application for an injection well on the Zelman Property in Brady Township, Clearfield County, Pennsylvania.

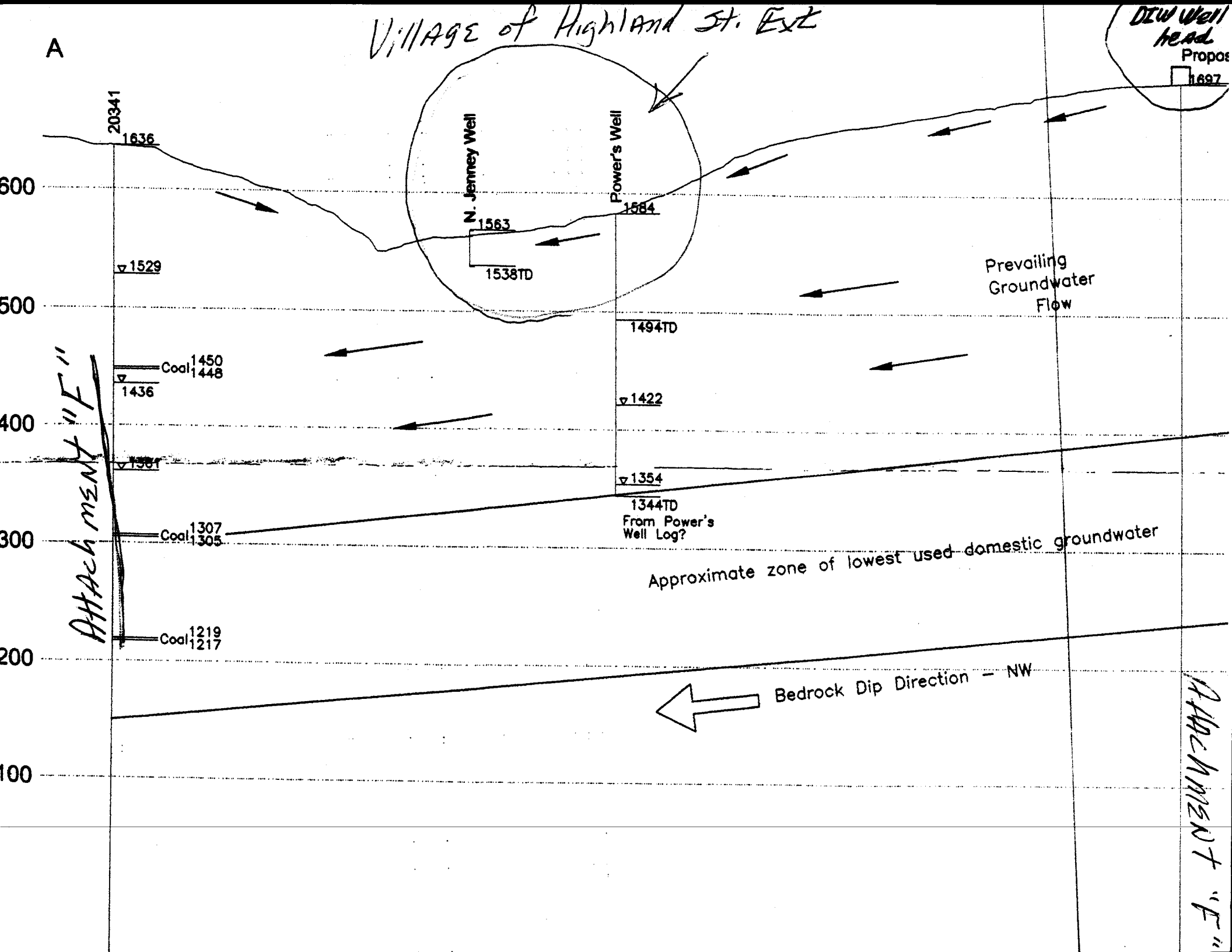
The investigation indicates that the proposed injection well is located on a near hilltop ledge, upslope and up-dip from several water supplies, primarily to the west of the site. Near surface flow from the site radiates to the east, west and south with the prevailing groundwater flow direction to the West-Northwest.

A review of water supply information indicates that total well depths are less than 400 feet with most in the 100-150 foot range within the Conemaugh or upper Allegheny groups of bedrock formations. There are no existing domestic water wells with total depths below an elevation of approximately1200 feet MSL.

A review of published information and gas well logs indicate that "fresh water" would not be encountered below as elevation of 900 feet MSL.

As a result of these findings, there are several thousand feet of separation between usable groundwater aquifers and the target injection zone, the Oriskany Sandstone.

However, the injection well site is located within the recharge area of several domestic water supplies and proper construction and cementing techniques used when installing the injection well casing(s) will be imperative so that there are no impacts to these supplies. The background sampling event indicated that the water quality of these supplies is generally very good. As a result, a sampling plan has been proposed in this report to test selected water supplies and surface water points to monitor for potential influences during the initial drilling and operational periods of the proposed injection well.


A
Village of Highland St. Ext
DIW Well head
Propos
1697
20341
1636
N. Jenney Well
1563
1538TD
Power's Well
1584
1494TD
1529
1436
Coal 1450 1448
1422
1361
1354
1344TD
From Power's Well Log?
Coal 1307 1305
Coal 1219 1217
Prevailing Groundwater Flow
Approximate zone of lowest used domestic groundwater
Bedrock Dip Direction – NW
600
500
400
300
200
100
Attachment "F"
Attachment "F"