

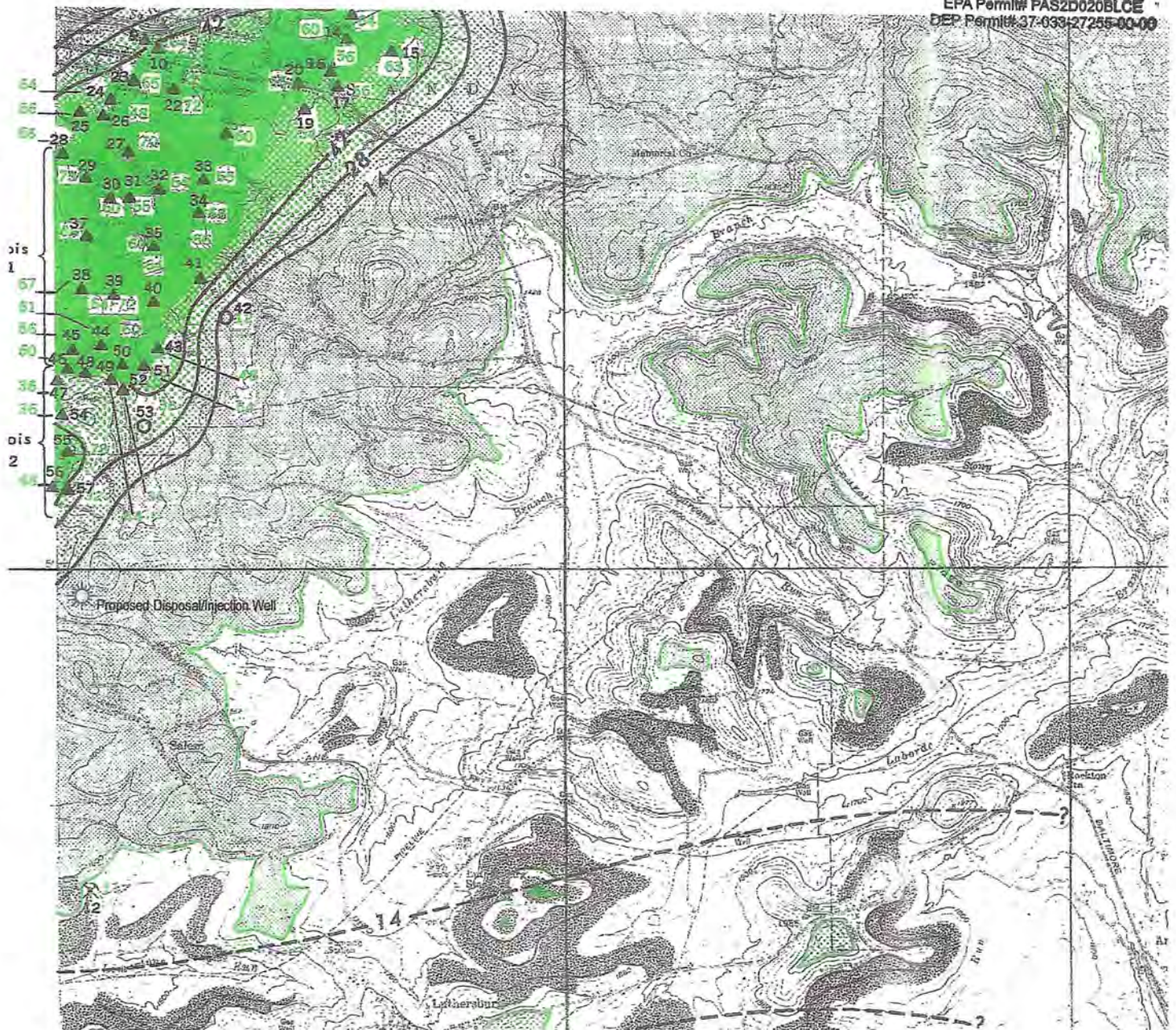


Exhibit #3
Lower Freeport Coal
Extent of Mining, Surface and Deep
Luthersburg Quad
from Edmunds et al 1971, reprint 1973
ATLAS Report 74 c&d, Plate 16



RESOURCE MANAGEMENT SERVICES, INC.
ENVIRONMENTAL ENGINEERING and GPS/GIS SERVICES
65 FENTON ROAD
INDIANA, PENNSYLVANIA 15701
724-465-6556

DRAWN BY	JBG	DATE	09/21/11
APPROVED BY	RFB	DATE	09/21/11
SCALE:	1"=1000'		
DRAWING FILE:			
GPS FILE:			

ZELMAN DISPOSAL WELL
Windfall Oil and Gas
Brady Twp., Clearfield Co., Pennsylvania

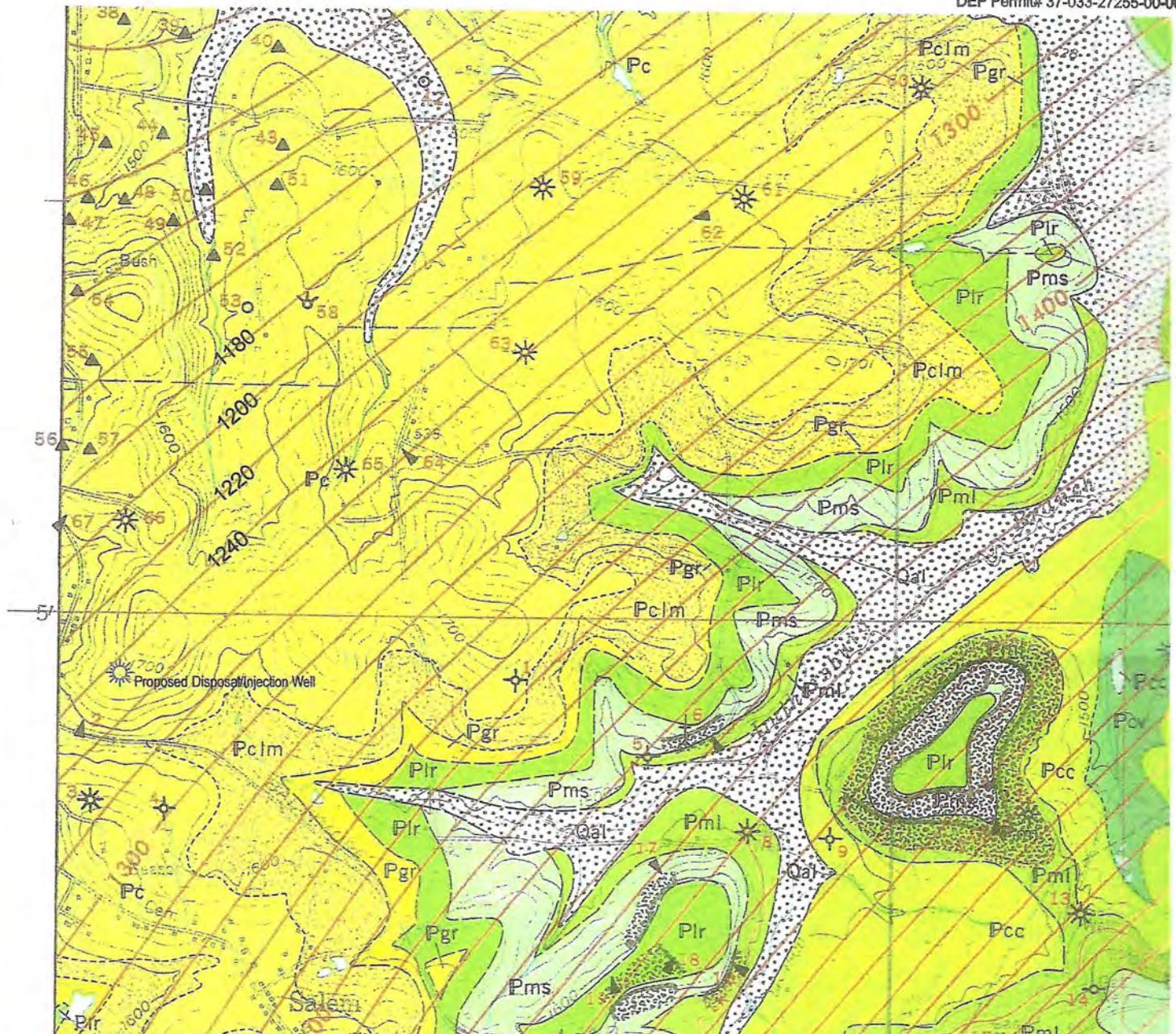


Exhibit #4

Geologic Map of the Southern Half of the Penfield Quadrangle, PA

William Edmunds and Thomas M Berg 1971, Reprint 1973
ATLAS Report 74 c&d

Surface Geology

- Structural Contours of Lower Kittanning
- Dip to the Northwest (2.2°)



RESOURCE MANAGEMENT SERVICES, INC.
ENVIRONMENTAL ENGINEERING and GPS/GIS SERVICES
65 FENTON ROAD
INDIANA, PENNSYLVANIA 15701
724-465-6556

DRAWN BY	JBG	DATE	09/21/11
APPROVED BY	RFB		09/21/11
SCALE:	1"=1000'		
DRAWING FILE:			
GPS FILE:			

ZELMAN DISPOSAL WELL

Windfall Oil and Gas

Brady Twp., Clearfield Co., Pennsylvania



Exhibit #5
Map Showing Depth to the Water Table and to the
Top of Salt Water in the DuBois Area, Jefferson,
Clearfield & Elk Counties, PA
Water Resources Report 45, 1979 Evan T Shuster

— 1000 — Elevation of the top of Salt Water

RESOURCE MANAGEMENT SERVICES, INC.
ENVIRONMENTAL ENGINEERING and GPS/GIS SERVICES
65 FENTON ROAD
INDIANA, PENNSYLVANIA 15701
724-465-6556

DRAWN BY	JBG	DATE	09/21/11
APPROVED BY	RFB	DATE	09/21/11
SCALE:	1"=1000'		
DRAWING FILE:			
GPS FILE:			

ZELMAN DISPOSAL WELL
Windfall Oil and Gas
Brady Twp., Clearfield Co., Pennsylvania

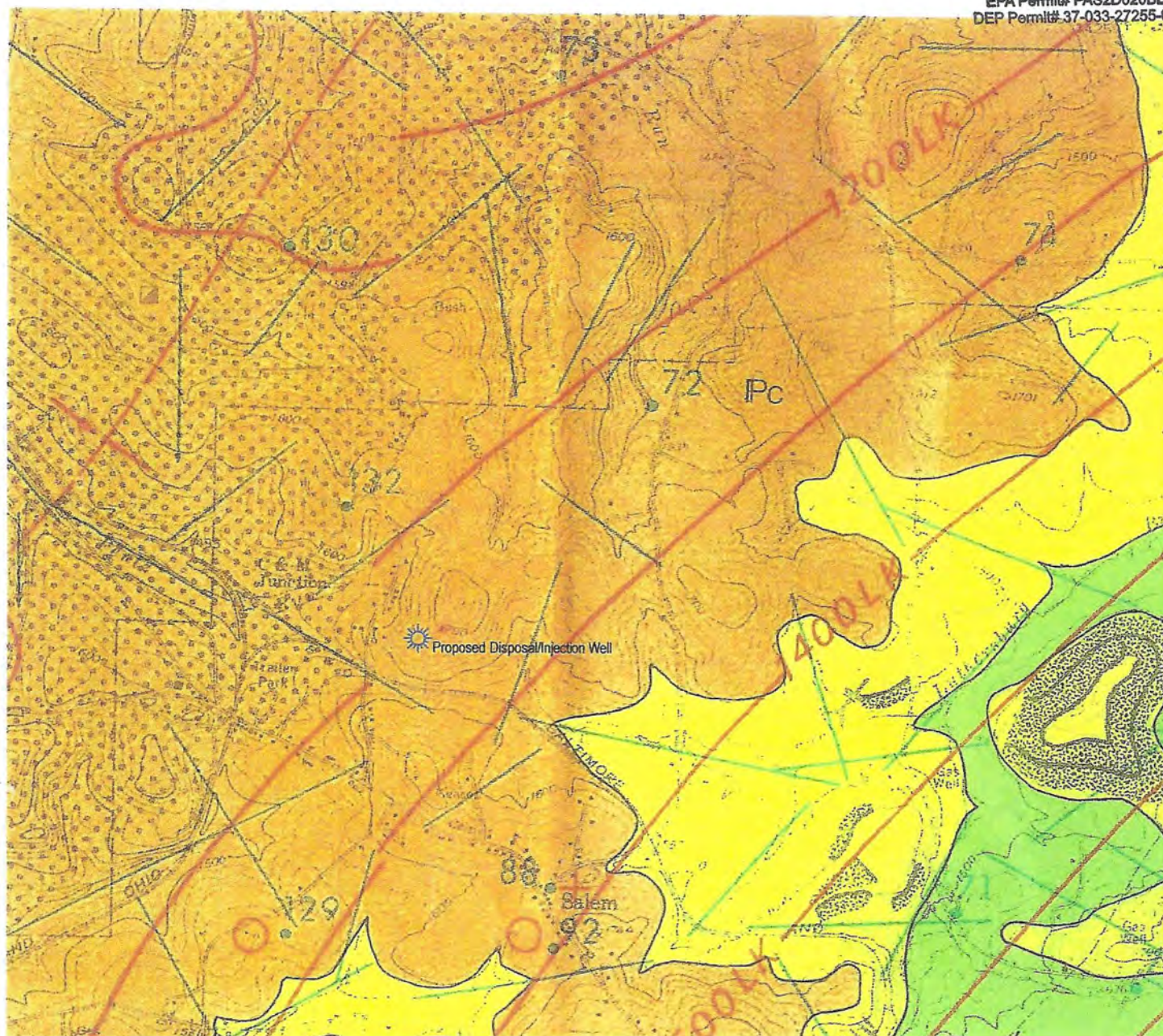


Exhibit #6 **Groundwater Resources of the DuBois Area, Clearfield & Jefferson Counties, PA** **Water Resources Report 45, 1979** **Evan T. Shuster**

 Spring / Seep
 Fracture Trace
 1000 LK Lower Kittanning Structure Contour

RESOURCE MANAGEMENT SERVICES, INC.
 ENVIRONMENTAL ENGINEERING and GPS/GIS SERVICES
 65 FENTON ROAD
 INDIANA, PENNSYLVANIA 15701
 724-465-6556

DRAWN BY	JBG	DATE	09/21/11
APPROVED BY	RFB	DATE	09/21/11
SCALE:	1"=1000'		
DRAWING FILE:			
GPS FILE:			

ZELMAN DISPOSAL WELL
 Windfall Oil and Gas
 Brady Twp., Clearfield Co., Pennsylvania



CONEMAUGH GROUP		SURFACE OF PROPOSED SITE
GLENSHAW FORMATION		
A L L E G H E N Y G R O U P	GLEN RICHEY FORMATION	UPPER FREEPORT COAL AT TOP
		LOWER FREEPORT COAL AT BASE
	LAUREL RUN FORMATION	
		UPPER KITTANNING COAL AT BASE
	MINERAL SPRINGS FORMATION	
		MIDDLE KITTANNING COAL AT BASE
P O T T S V I L L E G R O U P	MILLSTONE RUN FORMATION	
		LOWER KITTANNING No. 1 COAL AT BASE
	CLEARFIELD CREEK FORMATION	
		CLARION No. 1 COAL AT BASE
P O T T S V I L L E G R O U P	CURWENSVILLE FORMATION	
		BASE OF LOWEST MERCER UNDERCLAY
P O T T S V I L L E G R O U P	ELLIOTT PARK FORMATION	
		PENNSYLVANIAN
POCONO FORMATION		MISSISSIPPIAN UNCONFORMABLE BOUNDARY ? BURGOON SANDSTONE ?

EXHIBIT 7 - Subdivisions of the Mississippian and Pennsylvanian Rocks in Area of Interest
(Modified from Glover & Bragonier, ATLAS 64, 1978)

TABLES

WINDFALL OIL & GAS - ZELMAN INJECTION WELL APPLICATION TABLE 1 DOMESTIC WATER WELL								
Well #	Name	Surface Elevation Exhibit 1	Total Depth (ft.)	TD from Well Inventory	Depth Water Zones	Elevation Water Zones		
RMS 5-9-19	H. Jenney		34					
RMS 6-9-19	D. Crytser		Unk					
RMS 7-9-19	T. Crytser		120					
RMS 8-9-19	Atkinson		360					
RMS 11-9-19	Edmiston		Unk					
RMS 10-9-14	Zelman		Unk					
RMS 11-9-14	Lockart		spring					
RMS 6-9-13	S. Barr		Unk					
RMS 7-9-13	D. Barr	1610	Unk	190	108 165	1502 1445		
RMS 8-9-13	Frizzell		Unk					
RMS 9-9-13	D. Marsh		100-130					
RMS 10-9-13	Baird		~200					
RMS 11-9-13	V. Marsh		100-125					
RMS 12-9-13	Powers	1584	~90	240?	162 230	1422 1354		
RMS 13-9-13	Greathouse		~300					
RMS 1-9-20	N. Jenney		25					

WINDFALL OIL & GAS - ZELMAN INJECTION WELL APPLICATION TABLE 2 GAS WELL LOGS								
Well #	Farm Name	Surface Elevation *	Total Depth	Target Zone	Coal Depth	Coal Elevation	Water Depth	Water Elevation
20341	Carlson	1636	7365	Oriskany Plugged	186	1450	107	1529
					188	1448	200	1436
					329	1307	275	1361
					331	1305		
					417	1219		
					419	1217		
20333	Ginter	1636	7344	Oriskany	340	1296	458	1178
					345	1291		
					468	1168		
					474	1162		
20626	Dubois Bank	1656	3547	Upper Devonian Plugged	285	1371	330	1326
					294	1362		
					323	1333		
					330	1326		
20553	Dubois Bank	1578	3425	Upper Devonian	189	1389	30	1548
					192	1386	120	1458
					270	1308	410	1168
					273	1305	540	1038
20325	Potter	1588	7637	Oriskany Plugged	255	1333	50	1538
					265	1323		
					Coal or Black Shale			
					409	1179		
					415	1173		
20327	Potter	1633	7318	Oriskany	205	1428	75	1558
					209	1424		
					303	1330		
					306	1327		
					Coal or blk shale			
20597	Dubois Bank	1667	3576	Upper Devonian	No Coal Noted		100 420 750	1567 1247 917

* Elevation derived from Topography on Plat Map

WINDFALL O and G TABLE 3

Purveyor	pH	Lab pH	Acidity mg/L CaCO ₃	Alkalinity Mg/L CaCO ₃	Specific Conduct. umhos/cm	TDS mg/L	TSS mg/L	Nitrate/ Nitrite mg/L as N	Br mg/L	Cl mg/L	SO ₄ mg/L	Al mg/L	Ba mg/L	Ca mg/L	Iron mg/L	Mg mg/L	Mn mg/L	K mg/L	Na mg/L	Sr mg/L	Hardness mg/L CaCO ₃	Oil & Grease mg/L	Private Supplies
S. Barr	6.17	6.50	-11	33	90	58	< 5	1.02	< 0.2	2	10	0.1	0.07	8.8	0.11	3.1	< 0.01	1.0	2.1	0.10	34.8	< 5	6/9/13
D. Barr	7.57	7.90	-161	172	356	182	< 5	0.09	< 0.2	5	16	< 0.1	0.11	47.3	0.39	13.6	0.05	1.8	6.4	3.17	174	< 5	7/9/13
R. Frizzell	7.72	7.79	-134	146	413	212	< 5	0.08	< 0.2	25	19	< 0.1	0.18	25.4	< 0.05	6.5	< 0.01	1.4	54.5	1.40	90.4	< 5	8/9/13
D. Marsh	7.95	8.00	-161	173	396	222	< 5	0.18	< 0.2	3	27	< 0.1	0.12	20.8	< 0.05	5.4	< 0.01	1.3	63.2	1.07	74.1	< 5	9/9/13
R. Baird	7.09	7.51	-84	99	260	142	< 5	0.06	< 0.2	12	12	< 0.1	0.23	14.9	0.43	4.7	0.13	1.0	32.0	0.70	56.5	< 5	10/9/13
V. Marsh	7.55	7.89	-138	151	344	196	6	< .05	< 0.2	10	10	< 0.1	0.15	32.1	0.97	9.2	0.36	1.5	26.1	1.78	118	< 5	11/9/13
R. Powers	7.33	7.34	-58	76	165	100	< 5	0.33	< 0.2	< 1	10	< 0.1	0.04	18.9	0.06	6.7	< 0.01	0.9	4.3	0.25	74.8	< 5	12/9/13
R. Greathouse	7.13	7.50	-115	127	382	184	< 5	0.06	< 0.2	20	11	< 0.1	0.39	34.8	0.55	8.1	0.12	1.3	26.1	1.03	120	< 5	13/9/13
F. Zelman	6.68	6.71	-19	42	142	92	< 5	1.95	< 0.2	5	14	< 0.1	0.03	11.1	< 0.05	5.0	< 0.01	1.6	6.3	0.08	48.2	< 5	10/9/14
M. Lockart	6.64	6.54	-11	33	152	94	< 5	0.99	< 0.2	15	13	< 0.1	0.01	8.3	< 0.05	3.2	< 0.01	1.1	13.3	0.04	34.1	< 5	11/9/14
H. Jenney	7.57	7.61	-83	99	301	202	< 5	0.06	< 0.2	35	12	< 0.1	0.24	32.0	0.12	9.9	0.11	1.0	16.4	1.02	121	< 5	5/9/19
D. Crytser	7.44	7.39	-92	107	357	226	< 5	0.05	0.3	39	19	< 0.1	0.09	43.0	< 0.05	9.0	0.12	1.4	19.0	1.09	145	< 5	6/9/19
T. Crytser	7.26	7.29	-65	80	222	156	< 5	0.30	< 0.2	9	21	< 0.1	0.08	24.9	0.43	6.5	0.01	1.2	13.5	1.23	89.2	< 5	7/9/19
R. Atkinson	7.69	7.82	-191	200	391	246	< 5	0.07	< 0.2	5	11	< 0.1	0.22	48.2	0.07	16.6	0.05	2.1	23.1	0.89	188	< 6	8/9/19
R. Edmiston	7.26	7.53	-70	92	296	204	< 5	< .05	< 0.2	36	14	< 0.1	0.21	35.4	0.10	9.8	0.33	1.2	12.9	0.92	129	< 5	11/9/19
N. Jenney	6.61	6.69	-29	54	409	278	6	0.39	< 0.2	91	14	< 0.1	0.03	21.0	0.79	7.9	0.01	1.7	55.0	0.12	85.1	< 5	1/9/20
C. Kurtz	7.45	7.56	-81	96	231	128	< 5	0.37	< 0.2	3	16	< 0.1	0.09	26.0	< 0.05	7.4	< 0.01	1.2	6.5	1.18	95.2	< 5	1/9/26

Source	pH	Lab pH	Acidity mg/L CaCO ₃	Alkalinity Mg/L CaCO ₃	Specific Conduct. umhos/cm	TDS mg/L	TSS mg/L	Nitrate/ Nitrite mg/L as N	Br mg/L	Cl mg/L	SO ₄ mg/L	Al mg/L	Ba mg/L	Ca mg/L	Iron mg/L	Mg mg/L	Mn mg/L	K mg/L	Na mg/L	Sr mg/L	Hardness mg/L CaCO ₃	Surface Samples
Spring @ Source	5.75	5.90				62																1/9/13
Spring @ Source	5.99	5.95				36																2/9/13
Spring Channel	5.94	6.06				38																3/9/13
Spring @ Source	5.72	6.00				40																5/9/13
Stream	5.40	5.64				42																1/9/14
Stream	6.35	6.61	-1	23	54	46	< 5	0.11	< 0.2	< 1	9	< 0.1	0.02	4.2	0.17	2.1	0.01	0.8	1.5	0.03	18.8	2/9/14
Stream	5.78	6.10	4	18	47	44	7	< .05	< 0.2	< 1	8	0.4	0.05	3.6	0.43	1.4	0.06	0.8	1.7	0.03	14.7	3/9/14
Stream	6.63	6.90	-7	34	88	72	6	0.19	< 0.2	2	13	0.2	0.06	8.7	0.22	2.4	0.02	0.9	2.5	0.06	31.6	4/9/14
Spring @ Source	5.89	5.89				62																5/9/14
Stream	6.43	6.57	-7	31	85	64	5	0.33	< 0.2	2	12	0.2	0.12	8.2	0.11	2.3	< 0.01	0.9	2.5	0.05	30.1	6/9/14
Spring @ Source	7.17	7.55				108																7/9/14
Spring @ Source	7.48	7.41	-18	44	89	66	6	< 0.05	< 0.2	< 1	11	< 0.1	0.02	9.9	< 0.05	3.1	< 0.01	0.8	1.6	0.05	37.3	8/9/14
Corrugated Pipe	7.01	7.19				90																9/9/14
Spring @ Source	5.82	6.1				68																1/9/19
Spring @ Source	5.94	6.49				68																2/9/19
Spring Channel	6.36	6.74				112																3/9/19
Runoff	8.34	8.05	-45	74	165	120	< 5	0.66	< 0.2	4	15	< 0.1	0.04	22.7	< 0.05	4.5	< 0.01	1.5	5.8	0.16	74.9	4/9/19
Spring @ Source	6.77	7.02	-38	48	152	130	13	0.33	< 0.2	8	9	0.1	0.05	18.9	0.14	5.7	0.02	2.0	4.6	0.11	70.6	9/9/19
Spring Channel	6.78	7.08	-7	34	70	72	< 5	0.63	< 0.2	1	8	< 0.1	0.01	7.4	< 0.05	2.7	0.01	1.5	2.2	0.03	29.5	10/9/19
Culvert	6.69	6.74	-24	46	603	496	6	0.27	1.1	155	14	< 0.1	0.12	42.3	0.14	9.9	0.06	5.2	64.0	1.19	146	2/9/20
Culvert	7.10	7.37	-41	61	137	90	< 5	0.60	< 0.2	4	10	< 0.1	0.02	18.8	< 0.05	4.4	< 0.01	1.4	3.8	0.09	64.9	3/9/20
Culvert Channel	8.22	8.12	-136	150	360	210	11	1.22	< 0.2	18	17	< 0.1	0.03	47.0	< 0.05	5.6	< 0.01	3.2	31.4	0.42	140	4/9/20

WINDFALL OIL & GAS - ZELMAN INJECTION WELL APPLICATION TABLE 4 - MONITORING PROGRAM			
SAMPLING POINT	TYPE - DIRECTION FROM SITE	FREQUENCY DURING DRILLING	DURING OPERATION
RMS 12-9-13	POWERS WELL - NW	MONTHLY	SEMI-ANNUALLY
RMS 10-9-14	ZELMAN WELL - SW	MONTHLY	SEMI-ANNUALLY
RMS 7-9-13	BARR WELL - SE	MONTHLY	SEMI-ANNUALLY
RMS 4-9-19	STREAM - SW	MONTHLY	SEMI-ANNUALLY
RMS 2-9-20	SEEP - NW	MONTHLY	SEMI-ANNUALLY
RMS 2-9-14	STREAM - SE	MONTHLY	SEMI-ANNUALLY

See Table 3 for proposed analytical parameters minus Oil & Grease

APPENDICES

APPENDIX A – GAS WELL LOGS