

Investigation *Obstructed*

An Analysis of the SUNY-Ordered University at Buffalo Review of the Shale Resources and Society Institute

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The Public Accountability Initiative (PAI) is a non-profit, non-partisan research and educational organization focused on corporate and government accountability. In addition to publishing research on critical public accountability issues, PAI maintains LittleSis.org, an involuntary facebook of powerful people. PAI's work is funded by a variety of non-profit sources, including philanthropic foundations and grassroots organizations (all funding sources are listed at <http://public-accountability.org/about/funding>). Support for PAI's research on fracking has been provided by the 11th Hour Project of the Schmidt Family Foundation and the HKH Foundation.

This report was authored by PAI researchers Robert Galbraith and Kevin Connor.

Introduction and Background

In May 2012, the Shale Resources and Society Institute (SRSI) at the University at Buffalo (UB) released a report on fracking titled “Environmental Impacts During Marcellus Shale Gas Drilling: Causes, Impacts, and Remedies.” PAI issued a report shortly thereafter which identified numerous problems with SRSI and its inaugural report, including errors of basic math, false claims of peer review, wholesale copying from a previous report, and conflicts of interest among its authors.

The lack of transparency surrounding SRSI, conflicts of interest, and other serious problems with SRSI’s first report prompted public outcry and the formation of UB CLEAR, a coalition of UB faculty, staff, students, and alumni to call for an inquiry into SRSI’s. Separately, 83 faculty and staff signed a letter calling for transparency around SRSI. UB administrators repeatedly dismissed their concerns, but in September SUNY trustees passed a resolution calling on UB to report on circumstances surrounding SRSI’s founding, funding, and the publication of its first report.

Unfortunately, UB’s report, signed off on by President Satish Tripathi, falls far short of adequate disclosure. In his defense of SRSI, President Tripathi identifies eight “chief subjects of inquiry raised by critics” and provides “a brief clarification of the circumstances involved.” Rather than addressing these “subjects of inquiry” though, President Tripathi merely repeats the deflections that the university has previously made through its spokesperson John DellaConrada, through College of Arts and Sciences Dean Bruce Pitman, and most recently through Provost Charles Zukoski.

UB’s report omits many critical documents which are either publicly available or have become publicly available through document requests. UB’s report also excludes critical events from the timeline detailing the founding of SRSI, such as fundraising trips to Houston by SRSI founders. It also fails to address a critical, indisputable error in the SRSI report which would have fundamentally altered the industry-friendly findings UB’s public relations team disseminated.

In the following report we again review this error, attempt to clarify the timeline of SRSI’s inception and funding, and supply a number of relevant materials omitted from UB’s review of the institute. The report includes four sections: first, a recapitulation of the most serious error in the SRSI report; second, a discussion of the university’s various accounts of SRSI’s funding; third, a series of unanswered questions about SRSI; and fourth, attachments omitted by the university in its report.

UB administrators’ continuing refusal to address issues at SRSI points to larger problems with the school’s management of academic-industry partnerships, its handling of conflicts of interest, and its ethic of transparency and accountability. These issues are not isolated to UB: the University of Texas and Penn State have had similar problems with reports on fracking plagued by hidden conflicts of interest and improper industry influence. This is a national problem, and it

also extends beyond the oil and gas industry to the pharmaceutical, finance, and agriculture industries.

While UB administrators, led by President Tripathi, have made unsuccessful attempts to sweep their problems under the rug, UB faculty, staff, students, and alumni have established themselves as national leaders on the issue of transparency in academic-industry partnerships. The SUNY board, similarly, has stepped into a leadership role on these matters by initiating its inquiry. This report is an attempt to support these efforts, and ensure that UB becomes a model for academic integrity, and not a symbol of academic-industry partnerships gone awry.

I. The Most Serious Error: SRSI Claims That 6 > 8

The first “chief subject of inquiry” that President Tripathi identifies in his September 27, 2012 review of SRSI and its May 15, 2012 report is its conclusions. Indeed, the report’s conclusions are a subject of inquiry, one that PAI raised, first in our review of the SRSI report (see **Attachment A: “The UB Shale Play”**) and in a subsequent post on our blog, “Eyes on the Ties” (See **Attachment B: “‘Nonsense’ and UB’s Shale Resources and Society Institute”**). Particularly troublesome, the report’s authors conclude that major environmental incidents have decreased, based on notices of violation issued by the Pennsylvania Department of Environmental Protection, when in actuality they have increased, from 6 for every 1000 wells drilled in 2008 to 8 for every 1000 wells drilled in 2011. This error can be found both in the study’s introduction and its conclusion.

From the executive summary: “In conclusion this study demonstrates that the odds of non-major environmental events and the much smaller odds of major environmental events are being reduced even further by enhanced regulation and improved industry practice.”¹

From the conclusion: “Notably, the percentage of wells resulting in a major environmental event declined significantly; an indicator that the attention of regulators was focused on the areas of greatest concern.”²

According to the data in SRSI’s report, however, there was one major impact out of 170 wells drilled in 2008, and there were ten major impacts out of 1,248 wells drilled in 2011. Dividing 1 by 170 and 10 by 1,248, you arrive at major impact rates of 0.59% in 2008 and 0.80% in 2011:

2008: 1 major polluting event / 170 wells drilled = 0.59% wells with polluting events or 5.9 polluting events per 1,000 wells drilled

2011: 10 major polluting events / 1,248 wells drilled = 0.80% wells with polluting events or 8.0 polluting events per 1,000 wells drilled

¹ Timothy Considine, Robert Watson, Nicholas Considine, and John Martin, “Environmental Impacts During Marcellus Shale Gas Drilling: Causes, Impacts, and Remedies,” Shale Resources and Society Institute, University at Buffalo, iii (May 15, 2012). Accessed at:

<http://www.srsi.buffalo.edu/wp-content/uploads/2012/05/UBSRSI-Environmental-Impacts-Single-Page.pdf>

² *Id.* at 30.

E. Bruce Pitman, dean of the College of Arts and Sciences and a mathematics professor, called the notion that 8 is more than 5.9 “nonsense” in an interview with Daniel Robison of WBFO, and the university has since ignored the issue (**See Attachment F: “Controversy still simmers over SUNY Buffalo Shale Institute”**). By way of clarification in his review, President Tripathi offered:

The first report reviewed the impact of regulations on the incidence of environmental policy violation. The report’s main conclusion is that “the odds of non-major environmental events and the much smaller odds of major environmental events are being reduced even further by **enhanced regulation** and improved industry practice” (*emphasis Tripathi’s*).³

That is to say, when confronted with the criticism that the report’s conclusions were contrary to the researchers’ data, President Tripathi merely repeats the challenged conclusion, inexplicably emphasizing the phrase “enhanced regulation” (it is worth noting here that the SRSI authors concede in the body of the report that it is “difficult to conclusively illustrate causation between regulatory actions and decreases in environmental violations.”⁴

The SRSI report’s lead author, Timothy Considine, did not dispute that the rate of major impacts actually increased in an interview with Ben Wolfgang of the *Washington Times* (**See Attachment C: “Shale study’s lead author faces ‘green’ backlash: College distances itself from fracking findings”**):

Mr. Considine doesn’t dispute the calculations, but says either number indicates that such events are very rare and that the similarity between the two numbers suggests that Pennsylvania’s existing drilling regulations are sufficient for environmental safety.

The gravity of this error and of UB and the authors’ failure to correct it is evident in light of the way this report was marketed to the press and to the general public. Had the authors gotten their math right, the headlines that said “Fracking Safety Improves Dramatically, Says Independent Study” may instead have read “Minor fracking risks decreasing in Marcellus Shale, but major risks are increasing.” Pennsylvania Secretary of Environmental Protection Michael Krancer quoted the study before a congressional subcommittee as evidence that the Pennsylvania Department of Environmental Protection was adequately regulating shale gas drilling. Krancer would have had more difficulty making that argument had the authors accurately reported that major environmental incidents increased 36% in the period studied.

Two names branded on the American psyche, “BP Deepwater Horizon” and “Exxon Valdez,” suggest that major impacts are actually quite important when contemplating the high stakes of oil

³ Satish Tripathi, “University at Buffalo Report on the Shale Resources and Society Institute,” University at Buffalo, 10 (September 27, 2012). Accessed at: <http://www.buffalo.edu/news/pdf/SRSIReport9-27-12.pdf>

⁴ Timothy Considine, Robert Watson, Nicholas Considine, and John Martin, “Environmental Impacts During Marcellus Shale Gas Drilling: Causes, Impacts, and Remedies,” at 15.

and gas drilling, regardless of how likely they are in comparison with minor impacts. Considering these high stakes, it is hard to understand why President Tripathi and UB administrators continue to defend Considine and his co-authors' demonstrably false claims or why the report authors have yet to correct them.

II. Timeline and Funding of SRSI

The possibility of the gas industry funding SRSI has been the focus of most of the media fracas and activism surrounding the institute. The university has consistently denied that the May 15 report was sponsored by the gas industry, though UB's comments on the source of funding have evolved, and the inconsistencies suggest that the source of funding is still an open question.

Also unclear is the relationship between SRSI and an industry-funded series of lectures in the spring of 2011. UB insists that, while the gas industry funded the lectures, SRSI is entirely distinct from the series. However, internal funding applications and corporate donation appeals obtained through the Freedom of Information Law (FOIL) seem to conflate the two, referring to gas industry funds as a success in "local corporate funding through the Independent Oil and Gas Association (IOGA) of NY," (See **Attachment E: Lipsitz & Quigley FOIL Responses**). Two IOGA of NY directors, Gary Marchiori and Roger Willis, were lecturers in the series and a third, Dennis Holbrook, spoke at a conference in Houston about the importance of gas companies partnering with universities for the appearance of legitimacy, referring to the University at Buffalo by name (See **Attachment H: IOGA of NY Board and Officers**).

What has been firmly established about SRSI's funding and timeline is:

- SRSI's budget comes from funds discretionary to the College of Arts and Sciences and its Dean, Bruce Pitman. That money comes partially from the College of Arts and Sciences, from the Geology Department and the Dean's state operating accounts; partially from the SUNY Research Foundation, the recent audit of which exposed widespread abuses; and partially from the UB Foundation, a separate non-profit affiliated with the university and whose donors, both corporations and individuals, are secret and not subject to New York's Freedom of Information Law.⁵
- SRSI's organizers hoped to raise \$1.14 million to fund the institute's first three years, intending for the gas industry to be a major contributor – offering "focused alignment of purpose and deliverables" as a perk for donating (See **Attachment D: The Shale Resources and Society Institute: A Network to Objectively Advance the Timely, Safe, and Sustainable Economic Development of Unconventional Shale Gas Resources**).
- SRSI was conceived of in 2009 and formally, but secretly, created in 2011, after the success of an eight-part lecture series funded to the tune of \$12,900 by the oil and gas

⁵ Satish Tripathi, "University at Buffalo Report on the Shale Resources and Society Institute," at Attachment E: Funding for the Shale Resources & Society Institute.

industry, including \$5,000 from the Independent Oil and Gas Association (IOGA) of New York. Two IOGA board members were among the lecturers.⁶

In his report to the SUNY trustees, President Tripathi said:

UB's College of Arts and Sciences has been the sole source of funding for the SRSI. There has been no industry funding of the Shale Resources and Society Institute. SRSI can solicit support for the institution from external sources, including state and federal agencies, individuals and philanthropies, and corporations, however, none of its funding has come from these entities [See **Attachment E: Funding Breakdown for the SRSI**]. Note: a faculty proposal around shale research was submitted to the provost through a competitive university program designed to launch new research and educational initiatives in the last academic year but was not ultimately selected for funding.⁷

This clarification seems straightforward, but requires some parsing. Tripathi's statement disregards the number of distinct entities from which SRSI's funds are drawn, as well as the lack of transparency surrounding the source of funding for these entities.

The budget breakdown for SRSI included with President Tripathi's report indicates that co-director (and, depending on which document you look at, either the lead author or co-author of the May 15 report) John Martin's \$60,000 salary, \$4,914 in fringe benefits, and \$12,000 travel stipend come from the College of Arts and Sciences' general fund account at the UB Foundation.⁸ Robert Jacobi's \$41,928 SRSI salary comes from the Geology Department's state operating account and his \$10,000 summer salary comes from the College of Arts and Sciences Dean's office state operating account.⁹ SRSI's \$20,000 in operating support, \$20,000 in staff support, and \$8,600 in fringe benefits for staff come from the SUNY Research Foundation. Of the institute's \$177,422 annual budget, only 29%, \$51,928, comes from the University at Buffalo itself.¹⁰ John Martin's compensation, the plurality at 43% of the total budget, comes from the UB Foundation.

As a distinct 501(c)(3) organization affiliated with the University at Buffalo, the UB Foundation is not subject to New York's open meetings or freedom of information laws despite controlling the university's \$685.2 million endowment and managing the school's fundraising, real estate development, and investment activities.¹¹ The foundation also pays salary top-offs to top UB administrators, including a \$150,000 salary to President Tripathi over his \$385,000 salary from

⁶ *Id.* at Attachment C: Timeline of Events Related to SRSI Creation *and id.* at 4.

⁷ *Id.* at 10.

⁸ *Id.* at Attachment C: Timeline of Events Related to SRSI Creation.

⁹ *Id.*

¹⁰ *Id.*

¹¹ Luke Hammill, "Opening the books at the UB Foundation," Investigative Post (March 21, 2012). Accessed at: <http://www.investigativepost.org/2012/03/21/opening-the-books-at-the-ub-foundation/>

the university at \$115,000 salary from the SUNY Research Foundation.¹² Because the UB Foundation exists beyond the reach of the Freedom of Information Law, it is not transparent or accountable to the public and it is impossible to know the provenance of its money.

It is apparent, though, that the Shale Resources and Society Institute has sought, and is still seeking industry, funding. The institute hopes to raise \$1.14 million to fund its first three years, offering perks for sponsorship to potential corporate donors in a pitch that was hosted for a time at the UB Giving website (**See Attachment D: The Shale Resources and Society Institute: A Network to Objectively Advance the Timely, Safe, and Sustainable Economic Development of Unconventional Shale Gas Resources**):

Founding members will enjoy benefits including:

- **Advisory board:** Participate in the Institute’s Advisory Board, ensuring focused alignment of purpose and deliverables.
- **Research:** Gain first-mover access to emerging knowledge through collaboration with industry and academia.
- **Networking:** Impact the conversation with decision makers, identify potential employees, and influence future customers.
- **Public outreach:** Build a well-informed base of community knowledge regarding shale gas development.

A pamphlet apparently produced for potential sponsors obtained from the university via a FOIL request indicates that a Founding Corporate Membership has a price tag of \$50,000 per year (**See Attachment E: Lipsitz & Quigley FOIL Responses**).

Although the SRSI website has a section directing sponsors to a contact at the UB Foundation for “corporate and foundation relations,” College of Arts and Sciences Dean E. Bruce Pitman told Daniel Robison of WBFO that there were not yet guidelines in place to accept money from the gas industry (**See Attachment F: Controversy still simmers over SUNY Buffalo Shale Institute**). According to Dean Pitman and SRSI co-director Robert Jacobi, those guidelines will include housing the funds at the UB Foundation, which Jacobi described to WBFO’s Robison as a “slush fund”:

“We’re trying to put that money into a slush fund that’s mixing it up,” says Jacobi. “Like a Slurpie, [for instance]. You don’t know what’s ice and what’s taste. It’s all mixed up.”

Still, another document obtained through FOIL indicates that industry money has already been secured. The “case for funding” in a document resembling the previously mentioned sponsorship pitch that accompanied a proposal for funding from the university’s 3 E Fund says (**See Attachment E: Lipsitz & Quigley FOIL Responses**):

¹² Alissa Kline, “Tripathi era to begin at UB,” Buffalo Business First (April 18, 2011). Accessed at: <http://www.bizjournals.com/buffalo/news/2011/04/18/tripathi-era-to-begin-at-ub.html/>

We have already been successful in local corporate funding through the Independent Oil and Gas Association (IOGA) of NY, and have good contacts with National Fuel, their wholly owned subsidiary Seneca Resources, and other resource companies involved in the Northeastern play.

and

IOGA of NY is keenly aware of our plans and has not only aided us with funding, but also organizational help.

University at Buffalo spokesman John DellaContrada maintains that the money from IOGA, an advocacy and lobbying group for the oil and gas industry, only funded the 2011 Marcellus Shale Lecture Series, and not SRSI; however, this document makes no mention of this lecture series (**See Attachment E: Lipsitz & Quigley FOIL Responses and Attachment G: Fracking update: UB continues to deny industry funding claims**).

Only this September, after the university responded to FOIL requests about SRSI, did DellaContrada disclose that the Marcellus Shale Lecture Series was funded by \$12,900 of natural gas industry money, including \$5,000 from IOGA of NY (**See Attachment G: Fracking update: UB continues to deny industry funding claims**). When the series was being held, in the spring of 2011, neither its industry funding nor the fact that two of the lecturers, Gary Marchiori and Roger Willis, were IOGA of NY board members was disclosed. Two of the other lecturers, John P. Martin and Michael Joy, now have positions at SRSI (**See Attachment H: IOGA of NY Board and Officers**).

Given the various inconsistencies between the university's public statements and internal documents, it is difficult to understand the relationships between SRSI, the Marcellus Shale Lecture Series, and the Independent Oil and Gas Association of New York.

To clarify this, PAI has constructed the following timeline, culled from documents omitted from President Tripathi's September 27, 2012 report and meant to supplement the timeline attached thereto:

March 31 – May 19, 2011 Marcellus Shale Lecture Series, funded by \$12,900 from the natural gas industry (**See Attachment G: Fracking update: UB continues to deny industry funding claims**).

Spring 2011 Unidentified UB Geology Department or SRSI personnel have two meetings in Houston, TX with alumni and corporate interests (**See Attachment E: Lipsitz & Quigley FOIL Responses**).

Summer/Fall 2011 In *The Epoch*, the UB Geology Department newsletter, department chair Marcus Bursik says: "On another, but not unrelated track, we have continued to make progress on a Shale Gas Institute (changed from Black Shale Institute for acronymic reasons, q.v.). I am very hopeful that we will soon have all the pieces in place to get the Institute 'fully armed and operational' to quote the Emperor," (**See Attachment J: Excerpt from *The Epoch***).

September 2011 Letter of Intent sent to Colcom Foundation for SRSI funding (See Attachment E: Lipsitz & Quigley FOIL Responses).

October 2011 Unidentified UB Geology Department or SRSI personnel make pitch to alumni and corporate interests in Houston, Texas (See Attachment E: Lipsitz & Quigley FOIL Responses).

October 31, 2011 Dennis Holbrook of Norse Energy tells the audience at the “Media & Stakeholder Relations Hydraulic Fracturing Initiative 2011” conference in Houston to “seek out academic studies and champion with universities” and that the industry has “aligned with the University at Buffalo – we’ve done a variety of other activities where we’ve gotten the academics to sponsor programs and bring in people for public sessions to educate them on a variety of different topics,” (See Attachment K: UB & Buffalo News – Bamboozled by Natural Gas Industry).

May 15, 2012 SRSI releases “Environmental Impacts During Marcellus Shale Gas Drilling.”

May 15, 2012 Geology Department Alumni Advisory Board meeting where SRSI co-director Robert Jacobi indicated that “funding is slow” and “sponsors have not committed yet” and that “[i]ncoming funds will be managed through UB Foundation as unrestricted,” (See Attachment I: Geology Alumni Advisory Board May 15, 2012 Meeting Minutes).

May 25, 2012 PAI releases “The UB Shale Play.”

May 25, 2012 UB College of Arts and Sciences dean E. Bruce Pitman issues a statement saying “[SRSI’s] expenses and the salary of its part-time director, John P. Martin, have been paid entirely by the College of Arts and Sciences using discretionary funds, which come from sources that include indirect cost recovery from research grants, investment income and unrestricted gifts.”¹³

June 7, 2012 UB College of Arts and Sciences dean E. Bruce Pitman identifies the lecture series as the “origin of the institute” on the *Capitol Pressroom*.¹⁴

July 2012 Buck Quigley of Artvoice and John Lipsitz of Lipsitz and Ponterio, LLC file Freedom of Information Law (FOIL) requests seeking information about the founding, funding, and staffing of SRSI.

¹³ Satish Tripathi, “University at Buffalo Report on the Shale Resources and Society Institute”, Univeristy at Buffalo, at Attachment G: University Responses to Inquiries and Statements Regarding The Shale Resources and Society Institute,” 3.

¹⁴ Susan Arbetter and E. Bruce Pitman, “The Capitol Pressroom for June 7, 2012”, The Capitol Pressroom (June 7, 2012). Accessed at: <http://blogs.wcny.org/the-capitol-pressroom-for-june-7-2012-2/>

September 13, 2012 Buck Quigley and John Lipsitz receive documents responsive to their Jul 12, 2012 FOIL requests (**See Attachment E: Lipsitz & Quigley FOIL Responses**).

September 21, 2012 Spokesman John DellaContrada tells UB Spectrum senior news editor Sara DiNatale that the Marcellus Shale Lecture Series cost \$12,900, procured entirely from the energy industry (**See Attachment G: Fracking Update: UB continues to deny industry funding claims**).

September 27, 2012 Satish Tripathi submits the university's review of SRSI's founding, funding, and staffing to SUNY Trustees. This review includes a budget breakdown indicating that only 29% of SRSI's expenses were paid by the College of Arts and Sciences, the remainder coming from the SUNY Research Foundation and the inscrutable UB Foundation.

October 12, 2012 SUNY and UB publicly release President Tripathi's September 27, 2012 report.

III. Ten Questions for the University at Buffalo Regarding SRSI

There is a substantial amount of information missing from President Tripathi's report and a large number of questions that have as of yet gone unanswered about the Shale Resources and Society Institute. For the sake of clarity, we have included a list of ten questions our independent investigation has raised that the UB administration has not answered.

1. Why were documents responsive to Buck Quigley's and John Lipsitz's FOIL requests that were pertinent to the trustees' questions about SRSI not included in President Tripathi's September 27, 2012 report?
2. What other documents relevant to SRSI's formation, staffing, and funding were omitted from President Tripathi's September 27, 2012 report and from the responses to Buck Quigley's and John Lipsitz's FOIL requests?
3. Why was the Public Accountability Initiative report "The UB Shale Play", the report that first raised questions about SRSI, not included in President Tripathi's September 27, 2012 report?
4. Why were corporate funding pitches for SRSI not included in President Tripathi's September 27, 2012 report?
5. How did Timothy Considine, Robert Watson, and Nicholas Considine come to author the May 15, 2012 SRSI report?
6. Did Dr. Considine and Dr. Watson's previous work under the Pennsylvania State University aegis (or the university's retraction of their 2009 paper "An Emerging Giant: Prospects and Economic Impacts of Developing the Marcellus Shale Natural Gas Play") figure into the discussion about tapping them to write a report for SRSI?
7. Did Dr. Considine, Dr. Watson, and Mr. Considine's previous work for the Manhattan Institute, "The Economic Opportunities of Shale Gas Energy Development," figure into the discussion about tapping them to write a report for SRSI?
8. Why have neither the university administration nor the report authors addressed the fact that the May 15, 2012 SRSI report reaches a conclusion that is demonstrably false given the researchers' data and methodology?
9. Why have neither the university administration nor the report authors addressed the fact that several paragraphs of the May 15, 2012 SRSI report are identical to paragraphs in the Manhattan Institute report, "The Economic Opportunities of Shale Gas Development," published a year earlier?
10. Why was the gas industry funding for the Marcellus Shale Lecture Series not disclosed until September 21, 2012, more than a year after the lecture series concluded?

Conclusion

The fact that this report is necessary five months after the initial publication of the Shale Resources and Society Institute's first report speaks to serious problems surrounding SRSI's founding, funding, and activities so far.

Even more problematic is that, after being instructed to review the circumstances around the shale institute, President Satish Tripathi would prepare such an inadequate report. Is gas industry influence so powerful, at UB and SRSI and beyond, that university administrators can defend errors in basic math with a straight face while obfuscating the facts surrounding a controversial institute?

Will SUNY join UB in its defense of SRSI or will it take corrective action and demonstrate leadership in restoring public trust in UB – and public research universities more generally?

Appendix: Attachments

PAI has compiled documents, referred to above, that, although informative about the founding, funding, and staffing of SRSI, were omitted from President Tripathi's September 27, 2012 report. These documents are attached below.

Attachment A: Kevin Connor, Robert Galbraith, and Benjamin Nelson, "The UB Shale Play: Distorting the Facts About Fracking", Public Accountability Initiative (May 25, 2012).

Attachment B: Robert Galbraith, "'Nonsense' and UB's Shale Resources and Society Institute", Public Accountability Initiative (September 4, 2012).

Attachment C: Ben Wolfgang, "Shale study's lead author faces 'green' backlash: College distances itself from fracking findings", *Washington Times* (May 28, 2012).

Attachment D: "The Shale Resources and Society Institute: A Network to Objectively Advance the Timely, Safe, and Sustainable Economic Development of Unconventional Shale Gas Resources", Shale Resources and Society Institute.

Attachment E: Lipsitz and Quigley FOIL Responses

Attachment F: Daniel Robison, "Controversy still simmers over SUNY Buffalo Shale Institute", WBFO (August 30, 2012).

Attachment G: Sara DiNatale, "Fracking update: UB continues to deny industry funding claims", *UB Spectrum* (September 21, 2012).

Attachment H: "Board and Officers", IOGA of NY.

Attachment I: Meeting Minutes, University at Buffalo Geology Alumni Advisory Board. May 15, 2012.

Attachment J: Marcus Bursik, "Letter from the Chair", The Epoch, University at Buffalo College of Arts and Sciences (Summer/Fall 2011).

Attachment K: Dennis Holbrook and Buck Quigley, "UB & The Buffalo News – Bamboozled by Natural Gas Industry", *Artvoice* (blog) (July 20, 2012).