

Application of the National Environmental Policy Act to the Osage Mineral Estate

A Call to Action: Your Story is Powerful

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Summary

THE OSAGE AGENCY OF THE BUREAU OF INDIAN AFFAIRS OPERATED THE OIL AND GAS leasing program for 35 years in accordance with a 1979 finding that significant impacts would not result from oil and gas leasing. Responding to an expected lawsuit in 2014 the BIA suddenly informed operators that they must prepare draft Environmental Assessments for all future BIA approvals. Rather than continuing to operate the oil and gas leasing program while making adjustments to perceived NEPA requirements, the BIA stopped doing business as usual in spite of the fact that there was no compelling need or environmental risk. In addition the BIA is attempting to force conformance to Best Management Practices mutually agreed by BLM and BLM licensees which have not been vetted for application to Osage County conditions or accepted by the Osage oil and gas industry. In a hasty attempt to prepare a new Osage Oil and Gas Environmental Impact Statement the BIA has identified unrealistic alternatives, none of which include a return to the previously successful operating procedures. In contrast, the BLM is preparing a new EIS covering leasing operations in Kansas, Oklahoma, and Texas, while it continues to do business. A vigorous response by the Osage Mineral Estate, oil and gas operators, and the community is required to limit the damage and avoid further litigation.

NEPA History

The National Environmental Policy Act of 1969 was a quiet event. Although memories are softened by the other topics of the day; the cold war, civil rights, Vietnam, and Watergate, improving the environment was a popular cause without organized opposition.

Lynton Caldwell wrote, in later years, “... *the National Environmental Policy Act of 1969, made explicit, for the first time in American history, a broad national commitment to the human environment. Although the legislation had no precedent, it occasioned little debate. Its implications were generally unforeseen and its significance was underestimated by friends and future opponents alike. At least by law, a major innovation in national priorities had occurred, but only the most perceptive observers perceived its meaning.*”(1)

Washington Senator “Scoop” Jackson, a liberal democrat from the greenest state, was the principal sponsor of NEPA, Scoop was also a cold war hawk and an essential Senate ally of President Nixon. Nixon’s interest in the environment was political and he was inclined to support Scoop’s environmental efforts. Scoop’s Senate committee retained the services of Lynton Caldwell a professor of Political Science at the University of Indiana and the preeminent thinker on environmental public policy.

Caldwell was responsible for the “*action causing*” provision of NEPA. Caldwell’s idea as stated in NEPA- “*include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official*”

Five requirements of this action statement are: impact, unavoidable effects, alternatives, short-term vs long-term, and irretrievable commitments of resources.

NEPA is directed at Federal government agencies, applying to **their** major actions, any impact on the regulated is a knock on, secondary effect. A clear example, and one relevant to the times, would be a Federal decision to build a dam. Any attempt to use NEPA to write new regulations is misguided although nothing prevents an agency from considering possible regulations as part of the implementation of an alternative. Those regulations would be subject to normal procedures of proposal and comment. NEPA does not define “*major Federal action*”, Caldwell and Jackson left that job to the courts. NEPA, the law, does

not even use the term “Environmental Impact Statement”. The terms, Environmental Impact Statement, Environmental Assessment, Categorical Exclusion, Finding of No Significant Impact, etc., come from the various regulations invented by the Council on Environmental Quality to facilitate compliance with NEPA.

Candy Creek Lake Project

The first application of NEPA in Osage County was the Candy Creek Lake Project. Candy Creek Lake was to be built on Candy Creek about 1 and ½ miles east of Avant. Candy Creek followed the Birch and Skiatook projects and NEPA came along as it was getting started. The Tulsa District of the Corps of Engineers published an “*Environmental Statement*” (Environmental Impact Statement and Environmental Assessment were yet to be invented), for Candy Creek Lake in early September, 1970, 9 months after NEPA became law.(2) The Statement addressed the five NEPA points:

- 1 - Impact: Permanently inundate 2,170 acres.
- 2 - Unavoidable effects: Eight Homes flooded, wildlife will be inconvenienced
- 3 - Alternatives: Don’t build.
- 4 - Short-term vs Long-term: Tolerate occasional floods versus Flood Control and Recreation
- 5 - Irretrievable commitments of resources: Irreversible once constructed.

The document was **6 pages long** plus positive comment letters from six Federal agencies.

Interestingly, the Federal agencies did not include the Bureau of Indian Affairs nor did the Corps consider the lack of access to the underlying minerals as an unavoidable effect or irretrievable commitment. This oversight turned out to be the projects Achilles heel.

This early effort at NEPA compliance was seen as lacking, the original “*Environmental Statement*” was replaced with another in May of 1974.(3) The replacement was 112 pages long, a reflection of the increasing availability of word processors and Xerox © machines, employment opportunities created by NEPA, and the realization that not everyone was sold on Candy Creek Lake.

The Corp started construction in 1976 without obtaining the mineral rights. At some point the Corps started mineral rights condemnation proceedings. And, I believe, as part of that process **on May 4, 1977 Northern District Judge H. Dale Cook determined that the BIA had unfulfilled NEPA responsibilities for oil and gas leasing in Osage County.** The 1979 Oil and Gas Environmental Assessment was transmitted by Thomas Ellison, Area Director, BIA to Judge Cook on May 30, 1979.(4) Ellison's transmittal included a statement that significant impacts would not result from oil and gas leasing. In 1981 the US Justice Department threw in the towel and withdrew mineral rights condemnation proceedings.

In 1994 the project was de-authorized. Later the Water Resources Development Act of 1998 required selling the property.

The sale of the land was determined to be a major Federal action and another environmental statement was prepared. The Corp issued the Environmental Assessment for the Candy Lake Land Transfer Project in August of 2005.(5) Selling the land 35 years after the original 6 page environmental statement required a 201 page document describing the environmental impact of walking away.

The Candy Lake land transfer EA describes in more than adequate detail the alternatives of selling the land, as required by Federal law, and not selling the land, which would be in violation of Federal law. On the basis of this 201 page EA the Corps was able to make a Finding of No Significant Impact.

NEPA Terminology

Before turning to the 1979 Environmental Assessment for the Oil and Gas Leasing Program of the Osage Indian Tribe, Osage County, Oklahoma a review of NEPA terminology may be helpful.

An Environmental Assessment (EA) can satisfy the requirements of NEPA or become the basis for an Environmental Impact Statement (EIS). It should be significantly simpler and shorter than an EIS. If an EA allows the Agency to make a Finding of No Significant Impact (FONSI) then the exercise is over and the Agency can proceed with their significant Federal action. Opportunities for public participation are limited. The BIA NEPA Guidebook suggests that EA's be no more than 15 pages.

An Environmental Impact Statement is a detailed discussion of the alternatives, it may be preceded by an EA and it may not. It should reach a conclusion identifying the preferred alternative. An EIS provides extensive

opportunity for public participation. The preferred alternative may not necessarily be the one with the least environmental impact. The BIA NEPA Guidebook quotes Council on Environmental Quality regulations to the effect that an EIS should be no more than 150 pages, 300 pages for very complex actions.

In an attempt to avoid the absurd, Federal Agencies maintain lists of actions that are considered trivial. These are called Categorical Exclusions (CE). The Corps of Engineers could have avoided the EA for the Candy Creek Lake land transfer if their CE list had contained an item: *'Sale of real-estate when there is no legal alternative'*.

A Finding of No Significant Impact or a FONSI is a document that follows an Environmental Assessment which explains why an action will not have a significant impact.

A Record of Decision (ROD) is a document that follows an Environmental Assessment explaining why an EIS will be required. A Record of Decision is also required to document the alternative selected in an EIS.

1979 EA Issued

Two years after Judge Cook's ruling the BIA transmitted the 1979 EA transmittal letter to the Court. The EA included the statement; *"The review process indicated that significant environmental impacts would not result from the proposed action"*. Current terminology would term that a Finding of No Significant Impact or a FONSI.

The BIA's transmittal letter addressed endangered species and historic preservation assuring that the scope was adequate and measures would be taken if encountered.

The 1979 EA was, and is, a competent description of the environmental issues in Osage County related to oil and gas leasing. By every objective measure the impacts proved to be less than forecast. Oil and gas environmental impacts have declined due to improved operations, regulatory enforcement, lower production and drilling activity, and clean-up of historic scars.

Issues discussed in the 1979 EA include:

"Oil Waste Land", from Page 38, was estimated to be 2,000 acres increasing to 2,544 acres by the year 2000. The EA assumed that once contaminated the surface was not recoverable. The current USDA online soil survey indicates this category of soils comprises about 1,820 acres a 29% decline over the 79 EA forecast.(6) To some degree the decline is due to the activities of the Oklahoma Energy

Resources Board who has cleaned up 836 sites in Osage County in the last ten years.(7)

Fisheries, quoting from page 97: *“Osage County is probably among the best in the State for fishing.”*

On page 109 the EA concludes a discussion of the number of spills in the state and Osage County with the statement: *“Obviously, oil production in Osage County causes much less environmental degradation per barrel of production than production elsewhere in Oklahoma.”*

From page 114: *“No surface collapse, landslide or earthquake has ever been associated with program activities.”* Still a valid statement for Osage County.

Based on a study by the Osage County Conservation District from 1976 the EA forecast 1.4 million tons of sediment per year will be produced by the year 2000 from oil and gas activities. This was three percent of the all source total of 48.4 million tons per year. This forecast made the assumption that the 2,544 acres was not recoverable. The source of the other 47 million tons of sediment was not discussed in the EA. Impairment of surface water quality due to turbidity is largely related to agriculture sources.

The EA devotes pages 119 to 122 to the discussion of water quality problems. Chlorides are reported from spills, leaks, legacy oil and gas operations, and natural seeps. The BIA claims that Osage County is better than surrounding counties because of the BIA does a better job than the Corporation Commission. Recent OWRB lists of potential sources of impairment show spills as a source in one Osage stream segment.

Visual and Aesthetic Resources from page 132: *“The presence of 14,000 well sites with their pumps and storage tanks (increasing to over 18,000 by the year 2000) intrudes on the character of otherwise expansive rolling prairies.”* The 79 EA could not have anticipated the assaults on the aesthetic resources of Osage County, wind farms etc.

Recreation from page 132: *“Perhaps the greatest potential interference of the leasing program with recreation is the continued risk of oil and brine spills. Such spills could cause fish kills and temporarily limit fishing in a given area.”* From Page 139: *“A survey of seventy-five streams in Osage County, which was conducted by the Oklahoma Department of Wildlife Conservation in 1977, showed that 23 of the streams surveyed had experienced Fish kills. Few dates and no other information was provided for the fish kills, and the actual occurrences were mostly recorded*

from interviews with local residents who at one time or another recalled seeing dead fish in their streams.”

I asked the state Wildlife Department for current information on fish kills and was referred to the Department of Environmental Quality who said that they have records of three fish kills since 1995.(8) The cause of these kills was not available.

On page 145 the fishery status of the entire county was reported as excellent.

The concluding paragraph, *“Other Considerations”* on page 165 reads: *“Two local organizations have a definite interest in, although no real authority, over the oil and gas leasing program. These groups are the Osage Cattle Owner’s Association, which maintains an Oil and Gas Committee; and members of the Osage Conservation District, who occasionally report instances of pollution to either the Osage Agency or to the local Soil Conservation Service Office in Pawhuska. It should be noted here that these groups are surface owners with no mineral interest.”*

Still quoting: *“Among the other topics of concern by individual agencies or groups were maintenance of access roads, protection of fish and wildlife, mitigation of Cultural resources, and protection of crops and livestock.”*

Compared with the more recent Environmental Assessments issued since July 15, 2014 the 1979 EA was a good description of the Osage environment and thoughtful consideration of the impacts of the oil and gas activities.

The NEPA law nor the subsequent body of regulations define the shelf life of an Environmental Assessment or Environmental Impact Statement. The only thing that changed in the intervening 35 years, in which the Osage environment by every objective measure got better, was growing discontent of the surface owners and the BIA’s wish to avoid participation in operator-surface owner issues.

Could, can, the 1979 EA continue to be used for the purposes of NEPA? Certainly, EA’s have an indeterminate shelf life. Actions under less than fresh EA’s are common and the BIA’s sister agency the Bureau of Land Management has a procedure for determining if a given action can be approved under an existing EA. Called a Determination of NEPA Adequacy (DNA), the procedure is described in the BLM’s National Environmental Policy Handbook.

Executive Direction, July 15, 2014

On July 15, 2014 the Agency Superintendent issued a letter to Osage Mineral Lessees stating that they are responsible for preparing draft EA's for all future actions requiring BIA approval.(9) The Superintendent's letter stated; "As allowed by 40 CFR § 1506.5(b), it shall be the responsibility of the applicant to prepare a draft environmental assessment (EA) for all future actions requiring BIA approval". This is inconsistent with the actual language of 40 CFR § 1506.5(b) which is: "If an agency **permits and applicant to prepare an environmental assessment**, the agency, besides fulfilling the requirements of paragraph (a) of this section, shall make its own evaluation of the environment issues and take responsibility for the scope and content of the environmental assessment."

An applicant may be permitted to prepare a draft EA but 40 CFR § 1506.5(b) does not make it the **responsibility** of the applicant. NEPA rules make it very clear that NEPA compliance is the responsibility of the action agency.

Why did the Superintendent issue the July 15 letter after 35 years of operations under the 1979 EA? If the 1979 EA was lacking in some respect why not supplement or replace it an orderly manner while continuing business as usual? Why did the Superintendent attempt to bend the regulations to make it appear that the draft EA was the lessee's responsibility? Was there a compelling environmental need? The Superintendent did not offer any justification or explanation.

PEA November 2014

In November 2014 the BIA published the "Programmatic Environmental Assessment for Leasing Activities" (PEA).(10) The preferred alternative supported by this document was, and I quote, "to complete all administrative actions and approvals necessary to authorize and facilitate oil and gas leasing of the proposed locations". Paragraph 3.1 "As the leasing action is solely administrative in nature and involves no ground disturbing activities, then no impacts would occur in the following critical elements: land resources, air quality, water resources, wetlands, biological resources, threatened and endangered species, soils, vegetation, cultural resources, public health and safety and environmental justice." **In other words the Federal action was to shuffle paper.**

PEA 2.0 Page 4: I quote: "The NEPA document will contain appropriate conditions of approval and the Applicant must agree to take all appropriate actions, to

avoid, minimize and mitigate unacceptable environmental, consequences. Applicants must also agree to follow all best management practices (BMPs) and appropriate monitoring mitigations." This is the BIA's attempt at **backdoor regulation**. The BIA does not have the authority to impose any conditions that are not strictly required by law and regulation. The BIA is free to identify BMPs that would make an evaluated alternative attractive to the BIA. If this BMP required new law or regulation than the BIA is free to **propose** such law or regulations. The BIA is attempting to twist the applicant's arm to obtain concessions that it considers useful but, that are not legally required.

The term Best Management Practice was first used by Congress but not defined in the Clean Water Act of 1977 in reference to dredge and fill materials. It was subsequently defined by the EPA pertaining to control of non-point sources of water pollutants.(11)

The Bureau of Land Management has used BMPs for its oil and gas leasing program. The BLM BMPs are the inspiration for the Osage Agency's BMPs. However, there is a major difference. To quote the BLM, "Environmental Best Management Practices (BMPs) are state-of-the-art mitigation measures designed to provide for safe and efficient operations while minimizing undesirable impact to the environment. **Proper planning and consultation among the operator, surface management agency, and non-Federal surface owner, and the proactive incorporation of environmental Best Management Practices into the ADP Surface Use Plan of Operations by the operator, will typically result in a more efficient ADP and environmental review process, increased operating efficiency, reduced long-term operating costs, reduced final reclamation needs, and less impact to the environment.**" (12)

What is lacking in the Agency's use of BMPs is "**Proper planning and consultation among the operator, surface management agency, and non-Federal surface owner....**"

Again quoting the BLM, "According to the Gold Book numerous oil and gas operators have developed and used BMPs, yet BMPs are not "one size fits all".

The BLMs BMPs have developed over time, generally by industry, and fit the circumstances. BMPs require "**Proper planning and consultation**".

The BIA is free to unilaterally propose regulatory measures which address environmental issues such proposals should not be called BMPs.

The BIA is attempting to twist the applicant's arm inferring that agreement to its so-called BMPs are necessary to expedite processing of drilling permits.

PEA 3.0 Page 7: *"The BIA, as required by NEPA, must study, develop, and describe appropriate alternatives to the recommended course of action in any proposal that involved unresolved conflicts concerning alternative uses of available resources..."* I agree with this statement. However, the BIA dances around the unresolved conflicts. The BIA's biggest problem is surface owners whose wishes are inconsistent with oil and gas operations. 26 CFR §226 requires the Superintendent to participate in the resolution of conflicts, this is, or should be, in the job description. If the BIA wants to eliminate this responsibility then it should propose legislation (including the required NEPA paper work).

Other examples taken from the Programmatic Environmental Assessment:

PEA 3.2 Page 8: *"Under the No Action Alternative, the proposed Leasing Procedures detailed in section 2.5, will not be permitted."* This document does not contain a "section 2.5". However, the BIA is defining the No Action Alternative as stopping permitting activities, an unavailable option under current law.

PEA 4.16 Page 26: *"The regulatory agencies provide Conditions of Approval and enforcement would occur as a result of non-compliance which adds incentives for strict adherence to the BMPs."* It is worse than that, the preceding paragraph of the EA introduces the concept of Adaptive Management, to find the description of Adaptive Management you must read the referenced sections of the Code of Federal Regulations.(13) Even if you were willing to agree to the BMPs the BIA could change the rules of the game based on a preset criteria. For example, if the ambient air quality standard for suspended particulates were exceeded in Osage County then an adaptive management provision might automatically lower the speed limit on county roads for oil and gas vehicles from 45 mph to 25mph.

This, somewhat ridiculous example illustrates the difficulty of linking the cause and effect; for example, the actual reason for the air quality exceedance might have been range burning.

Otherwise, the Programmatic EA contains useless verbiage, a common problem with - paid by the page-NEPA documents:

PEA 4.1 Page 9: An example: *"Osage County is the largest of 77 counties in Oklahoma, encompassing a total of 1,476,480 acres. It is located in the northeastern portion of*

the State and is bordered by Kansas on the north, The Arkansas River on the southwest, Tulsa County on the Southeast, and Washington County on the east. Pawhuska, the county seat, is centrally located. Although the study area is sparsely populated, an extension of metropolitan Tulsa has produced an urban area at the far southeastern corner of the county. Except for large flood plains along the Arkansas River and several major streams, the topography of the county is characterized by gently rolling hills. These hills are generally covered by native grassland and wooded lands and are used primarily for grazing."

Useful information?

The Appendix to the Programmatic EA contains a list of 47 BMP's "that" I quote *"can, and should, be considered on development projects in general"*. This list contains some things that are modest and more or less reasonable, some things that clearly exceed the BIA's authority, and some things that are just silly.

The silly category is the most fun: Conducting snow removal activities in a manner that does not adversely impact reclaimed areas and areas adjacent to reclaimed areas, Planning transportation to reduce vehicle density, Posting speed limits on roads, Avoiding traveling during wet conditions, Keep a watering truck on site and watering the access roads, etc. Presumably, the BIA will send an inspector out to check for speed limit signs?

Operator Prepared EA Drafts

Subsequent to the Programmatic EA, the BIA has required operators to prepare drafts for the BIA's use. The operator must prepare the draft EA to get a permit application processed. Remember, the EA is the BIA's document, they have ownership, control, and are responsible for what it says. The operator, or the operator's consultant, is just doing the BIA's work and must please the BIA if they want to move the permit application along. The operator drafted EA's contain -to varying degrees- implied agreements to environmental requirements that are not, strictly speaking, within the BIA's authority.

To the best of my knowledge, two operator drafted EA's have been completed to date for 15 wells. Each has taken months to complete and cost thousands of dollars. Clearly, the vitality of the Osage oil and gas program cannot be restored if the BIA sticks to this program. There are no significant environmental benefits to justify the harm done to the Osage economy.

EIS draft expected soon?

Will the new EIS publication, expected soon, solve the problem? If the EIS alternatives are as described in the

February 2015 BIA publication Osage County Oil and Gas EIS.(14) **The answer is not likely.**

Consider the alternatives described in the February publication.

No Action: this alternative is defined as the continuation of the program precipitated by the July 15, 2014 letter. It is entirely inappropriate to consider this a no action alternative. The no action alternative should have been a return to the pre July 15, 2014 permit processing practices.

Action Alternative 1: This alternative would have the operator “*apply resource conservation measures as permit conditions*”. This action alternative anticipates limiting oil and gas activities as TMDL studies are completed for stream segments. TMDL stands for Total Maximum Daily Load. In accordance with the Clean Water Act TMDLs are performed when beneficial uses are impaired. TMDL studies have been completed for the beneficial use, Primary Body Contact Recreation, for 15 stream segments in Osage County representing 59% of the surface area. All the streams with completed TMDLs are impaired for swimming and 99% of the problem was determined to be cattle. Of all the streams waiting on TMDL studies legacy oil and gas scars has been identified as a potential source 4% of the time and spills 1%. Other potential sources identified were: “Civilization” 35%, Agriculture 34%, Unknown sources 19%, and Wildlife 10% of the time.(15)

However this action alternative would “*limit oil and gas activities to prevent exceedances of stream [carrying] capacities*”, **if applied it would condemn some portion of the Osage mineral estate.**

Action Alternative 2: This alternative incorporates Alternative 1 and would identify sensitive areas which would be protected by **no drilling buffers, extending the condemnation of the mineral estate.** Candidate endangered species would be protected in addition to listed endangered species.

The “*listening session*” for comment on these alternatives closed on March 11, 2015. **If you were asleep at the wheel, you have one more chance before the next lawsuit.**

Call to Action!

When the draft EIS is published, a formal 45 day comment period will begin. Public meetings will be held.

It is very important that participation be informed, loud, oral and written, and multi sourced. Multi sourced means that every stake holder should personally speak to the issues.

FORM LETTERS ARE RECOGNIZED AS SUCH, BUT EACH INDIVIDUAL STORY, “YOUR STORY”, IS POWERFUL.

References

- (1) Lynton Caldwell, Environment as a Focus for Public Policy, 1995, Texas A&M University Press
- (2) Environmental Statement, Candy Lake, Candy Creek Oklahoma, Sept. 9, 1970 US Army Engineer District, Tulsa, Oklahoma
- (3) Candy Lake, Candy Creek, Oklahoma, May 1974, US Army Corps of Engineers, Tulsa District, Tulsa, Oklahoma
- (4) Environmental Assessment for the Oil and Gas Leasing Program of the Osage Indian Tribe, Osage County, Oklahoma, May 1979, US Department of the Interior, Bureau of Indian Affairs, Muskogee Area Office, Muskogee, Oklahoma
- (5) Environmental Assessment for the Candy Lake Land Transfer Project, Osage County, Oklahoma, August 2005, US Army Corps of Engineers
- (6) Web Soil Survey, USDA Natural Resources Conservation Service,
<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>, Accessed October 21-24, 2015
- (7) OERB Well Site Cleanup Website
<http://www.oerb.com/well-site-clean-up>, Accessed October 10, 2015
- (8) Email communication, September 23, 2015, Oklahoma Department of Environmental Quality
- (9) Executive Direction - Letter to Osage Mineral Lessees, July 10, 2014, Superintendent, Bureau of Indian Affairs, Eastern Oklahoma Region, Osage Agency
- (10) Programmatic Environmental Assessment for Leasing Activities, November 2014, Bureau of Indian Affairs, Eastern Oklahoma Region, Osage Agency,
<http://www.bia.gov/WhoWeAre/RegionalOffices/EasternOklahoma/WeAre/Osage/>, Accessed October 11, 2015
- (11) Clean Water Act of 1977, Pub.L. 95-217, December 27, 1977. Sections 208 (b), (i) and (j), 33 U.S.C § 1288
- (12) Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition – Revised 2007, United States Department of the Interior and United States Department of Agriculture, Bureau of Land Management.
- (13) 43 CFR §46.30, 46.145, 46.310, 46.415
- (14) Osage County Oil and Gas EIS, Alternative Development Underway for Osage County Oil and Gas Environmental Impact Statement, February 2015, U.S. Department to the Interior, Bureau of Indian Affairs, Eastern Oklahoma Region,
<http://www.bia.gov/cs/groups/xregeasternok/documents/document/idc1-029545.pdf>,
Accessed October 11, 2015
- (15) Fred Storer, No Swimming, Osage County, Oklahoma, available via www.hydratationengineering.com
Accessed October 1, 2015