RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

August 25, 2009

OIL & GAS DOCKET NO. 03-0247582

COMMISSION CALLED HEARING ON THE COMPLAINT OF DR. C.E. FENNER AGAINST ANADARKO PETROLEUM CORPORATION AND MAGNUM PRODUCING, L.P., REGARDING ALLEGED VIOLATIONS OF STATEWIDE RULE 8(b), 8(d) AND STATEWIDE RULE 91, ON A 5 ACRE TRACT OF LAND OWNED BY C.E. FENNER AND FORMERLY USED AS A GAS STORAGE PLANT IN AUSTIN COUNTY, TEXAS.

APPEARANCES:

FOR DR. C.E. FENNER:

Lloyd Muennink	Attorney
Jim Blackburn	"
Adam Friedman	"
Brian Carlile	GIS Consultant
Wayne Crouch	Environmental Consultant
Bruce Darling	Environmental Consultant
Bradford Blezinger	Self-Employed Well Gauger

FOR ANADARKO PETROLEUM CORPORATION:

Ana Maria Marsland-Griffith	Attorney
Linda Kuhn	"
Richard Melamed	"

FOR MAGNUM PRODUCING, L.P.:

Ryan Stevens	Attorney
Rajan Ahuja	Vice-President, Magnum Producing
Lloyd Deuel	Research Soil Chemist
Brad Snow	Environmental Consultant

FOR RAILROAD COMMISSION STAFF:

David Cooney	RRC, Attorney
Peter Pope	RRC, Site Remediation Specialist
Tim Poe	RRC, P-5 Department Manager

PROPOSAL FOR DECISION

PROCEDURAL HISTORY

DATE OF REQUEST FOR HEARING:	May 17, 2006
PREHEARING CONFERENCE:	September 6, 2006
HEARING ON MOTIONS TO DISMISS:	November 14, 2006
DATE OF NOTICE OF HEARING:	August 7, 2007
DATES OF HEARING:	August 28, 29 & 30, 2007 December 11, 12 & 13, 2007
HEARD BY:	Marshall Enquist, Hearings Examiner Thomas Richter, Technical Examiner Donna Chandler, Technical Examiner
DATE RECORD CLOSED:	March 6, 2008
DATE PFD CIRCULATED:	August 24, 2009

STATEMENT OF THE CASE

This is the complaint of Dr. C.E. Fenner ("Fenner") that Anadarko Petroleum Corporation ("Anadarko") and Magnum Producing, L.P. ("Magnum") have violated Statewide Rules 8(b), 8(d) and Statewide 91 on five acres of land owned by Dr. Fenner in Austin County formerly used as a gas processing plant site. Fenner believes that unpermitted discharges [violations of Statewide Rule 8(d)] from the gas plant have contaminated groundwater [a violation of Statewide Rule 8(b)] on the subject tract and that the contamination is a violation of Statewide Rule 91. A plat of the five acres, showing the location and layout of the gas plant, is attached as Exhibit I.

Anadarko and Magnum deny that their actions have caused contamination of the groundwater under the Fenner Tract and both filed Motions to Dismiss. A hearing on the Motions to Dismiss was held on November 14, 2006. The examiners denied the motions.

The hearing on the merits went forward on August 28, 29 and 30, 2007 with the call of the hearing limited to possible violations of Statewide Rules 8(d) and 91. On August 29, 2007, the parties agreed to broaden the scope of the hearing to include possible violations of Statewide Rule 8(b) after a break for further testing. At the conclusion of testimony on August 30, 2007, a recess was taken to allow the collection of further soil and groundwater samples, which occurred in November, 2007. The hearing resumed on December 11, 2007 and continued through the 13th.

BACKGROUND

On May 31, 1973, Dr. C.E. Fenner and wife Camilla Fenner entered into an oil and gas lease with Millican Oil Company ("Millican") covering 692 acres in Austin County. Fenner subsequently entered into additional oil and gas leases with Millican on adjacent property. Millican completed

several successful wells on the Fenner tracts.

Approximately one year later, on May 29, 1974, Fenner entered into a surface use agreement with Millican Oil Company under which a gas processing plant was constructed on 4.978 acres of Fenner's land. In October, 1974, Millican filed an application with the Commission for a salt water disposal well on the 4.978 Fenner Tract.

At some point in 1977 or 1978, Millican's interests, including the gas processing plant, transferred to Alamo Petroleum Company. In 1980 or 1981, Alamo Petroleum Company became Amax Petroleum Corp. By letter dated July 9, 1982, the RRC notified Amax of a Statewide Rule 8(c)(4) violation regarding a large pit used as a salt water emergency overflow holding pit on the Fenner gas plant site. Amax timely responded to the notification, and, by letter dated August 13, 1982, the RRC acknowledged that the pit had been dewatered and backfilled.

On September 1, 1982, Amax assigned its interests in the Fenner wells and gas processing plant to Tenax Oil and Gas Corporation. A short time later, on November 1, 1982, Tenax transferred its interest to Samson Resources.

On January 1, 1987, Samson sold its interest in the Fenner wells and gas processing plant to American Trading and Production Company ("ATAPCO"). ATAPCO operated the wells and gas plant until it transferred the original 692.26 acre Fenner Lease and the 4.978 surface use lease and gas plant equipment to Magnum Producing & Operating Company by Assignment and Bill of Sale with an effective date of October 1, 1991. Even though Magnum became the owner of the lease as of the October 1, 1991 effective date, Magnum apparently agreed to allow ATAPCO to continue to operate the gas processing plant for another two years, as ATAPCO had the majority of the wells being served by the gas plant. During that time, ATAPCO plugged the C.E. Fenner #1 SWD (RRC ID# 11068) on February 26, 1992, which was the saltwater disposal well that had been associated with the emergency saltwater holding pit. By 1993, Magnum had become the operator of most of the wells being served by the gas processing plant and took over gas plant operations from ATAPCO. Magnum operated the gas processing plant from that time until Magnum closed the plant and began removing equipment in 1994.

From 1994 through 1997, Magnum cleaned up the site of the gas plant by breaking up the old concrete retaining walls around the equipment, dozing up the soil that was within the retaining walls and plugging buried pipelines. From 1997 forward, both Fenner and Magnum employed various environmental consultants to evaluate possible contamination on the gas plant site. Newpark Environmental Services, WQS Environmental Laboratory, Ace Technologies, Inc., ECD Environmental, Inc., Eddie Seay Consulting and Rimkus Consulting Group conducted analyses of soil and water samples taken from the 4.978 acre gas plant site for Fenner. Gemini Analytical Services, Inc., Republic of Texas, RMT, Inc. and Soil Analytical Services, Inc. conducted soil and water sample tests for Magnum.

Fenner's consulting experts found exceedances of chemicals of concern (COCs) beyond the Tier 1 protective concentration levels (PCLs) developed under the Texas Risk Reduction Program (TRRP) [30 Texas Administrative Code §350] promulgated by the Texas Natural Resources Conservation Commission (TNRCC) and its successor, the Texas Commission on Environmental Quality (TCEQ).

Magnum offered to fully remediate the 1.7 acre plant site within the overall five acre tract. Fenner rejected this offer as insufficient. The inability of the parties to agree on site remediation resulted in Fenner filing a breach of contract suit against the operators of the Fenner Gas Plant in October, 1998. The suit was styled "Dr. Fenner v. ATAPCO, et al", CV-98V-090, in the 155th District Court in Austin County. Fenner lost his lawsuit in District Court, as well as in the Appeals Court and at the Texas Supreme Court. The lease of the 5 acre gas plant site stipulated that upon termination, lessee would "...generally restore the surface of the land." The term "surface" was not defined in the lease, so the courts applied its ordinary meaning. Fenner had argued that "surface" must include the subsurface as well, but the courts rejected this argument. Fenner now seeks cleanup of the subsurface of his property through the administrative process, resulting in this hearing before the Commission.

APPLICABLE LAW

Statewide Rule 8(b) states that no person conducting activities subject to regulation by the Commission may cause or allow pollution of surface or subsurface water in the state.

Statewide Rule 8(d) provides that no person may dispose of any oil and gas wastes by any method without obtaining a permit to dispose of such wastes.

Statewide Rule 91 describes the general cleanup standards applied to soil contaminated by a crude oil spill. It is applicable to the cleanup of soil in non-sensitive areas contaminated by crude oil spills from activities associated with the exploration, development, and production, including transportation, of oil or gas or geothermal resources as defined in Section 3.8(a)(30) [Statewide Rule 8(a)(30). The standards and procedures outlined in Statewide Rule 91 do not apply to hydrocarbon condensate spills, crude oil spills in sensitive areas, or crude oil spills that occurred prior to the effective date (November 1, 1993) of this section. Cleanup requirements for hydrocarbon condensate spills and crude oil spills in sensitive areas are determined on a case-by-case basis. Cleanup requirements for crude oil contamination that occurred wholly or partially prior to the effective date of this section are also determined on a case-by-case basis.

Statewide Rule 30 is titled "Memorandum of Understanding Between the Railroad Commission of Texas (RRC) and the Texas Commission on Environmental Quality (TCEQ)". Statewide Rule 30(e)(2) gives the RRC jurisdiction over field treatment of produced fluids. Produced fluids may be treated in the field in facilities such as separators, skimmers, heater treaters, dehydrators and sweetening units. Waste materials that result from the field treatment of oil and gas

include waste hydrocarbons, produced water, hydrogen sulfide scavengers, dehydration wastes, treating and cleaning chemicals, filters (including used oil filters), asbestos insulation, domestic sewage and trash are subject to the jurisdiction of the RRC. Pursuant to the memorandum, the Commission uses the same standard as TCEQ, the Texas Risk Reduction Program (TRRP), in evaluating environmental risks presented by releases of COCs (chemicals of concern).

MATTERS OFFICIALLY NOTICED

At the request of the parties, the examiners have taken Official Notice of the exhibits and evidence presented in the November 14, 2006 hearing held on the Motions to Dismiss. The examiners also take Official Notice of the "R-3 Plant Master Inquiry" mainframe screen and Commission Form R-6 showing that the subject gas processing plant is identified as Plant ID# 03-1048, operated by Magnum Producing, L.P.

POSITIONS OF THE PARTIES

Fenner

Fenner advances two alternate theories of this case. First, he argues that Magnum Producing, L.P. (hereinafter "Magnum") has violated Statewide Rules 8(b), 8(d) and 91. Consequently, he asks the Commission to order Magnum to remediate any pollution or contamination on the five acre gas plant site. Second, Fenner argues that the September 1, 1982 assignment of the gas plant from Amax to Tenax was invalid, because Amax fraudulently concealed the on-site debris pit with a vapor barrier. From this, Fenner asserts that liability for the violation of Statewide Rules remained with Amax, ultimately transferring to Anadarko as a successor.

Upon becoming aware of possible contamination on the Fenner gas processing plant site, the Commission's Site Remediation Section attempted to find a valid address or successor to the prior operators of the site. Site Remediation attempted to find Amax Petroleum Corp. or its successor by enlisting the help of Commission Staff. Staff found a Secretary of State filing of AMAX Oil & Gas, Inc. in 1987. Following the trail of name changes and auto-P-4 transfers, Staff traced a succession from AMAX Oil & Gas Inc. to Union Pacific Resources Company in 1994, then from Union Pacific Resources Company to RME Petroleum Company in 2001, then from RME Petroleum Company to Anadarko E&P Company, LP in 2002. On the strength of that trail, combined with a theory of "fraudulent concealment", Fenner argued liability passed from Amax to its successor Anadarko, and included Anadarko in the present complaint.

The 4.978 acre Fenner gas processing plant site (see Exhibit I) is in the shape of a trapezoid, roughly oriented east/west. The main gas processing plant facilities, consisting of tank batteries, dehydrator unit, gun barrel separator, heater treater, compressors and processing towers, were located on the eastern third of the site. On the south side of the site and slightly off center to the west, there was an emergency saltwater overflow holding pit (later filled in) for use when the saltwater tanks

exceeded capacity. A saltwater disposal well (later plugged) was located west of the emergency saltwater pit. On the western side of the facility, there remains a debris field consisting of buried oilfield trash, some of which is coated with crude oil or lubricants.

Fenner photographed the emergency saltwater pit in 1981 and 1982. At that time, the pit was covered with an oil skim which discolored the banks of the pit. During a period of high rainfall, the saltwater pit overflowed, resulting in the escape of some oil skim and an oil stain on the outside of the pit dam. The overflow ran down a ditch beside a ranch road, toward the adjacent dry creek. Had the spill reached the dry creek, it might have drained into Mill Creek, and then drained into the Brazos River.

Just after the pit overflow event, the Commission, by letter dated July 9, 1982, ordered the emergency saltwater storage pit dewatered and backfilled. The gas plant operator at the time, Amax Petroleum Corp., complied and the Commission acknowledged closure of the pit by letter dated August 13, 1982. Amax transferred its interest in the gas plant to Tenax on September 1, 1982.

Although the gas processing plant has passed through a number of operators, the last was Magnum, as evidenced by an Assignment and Bill of Sale through which Magnum became the operator of the 4.978 acre surface lease of the gas processing plant effective October 1, 1991.

History of Gas Plant Operations

To describe the operations in the Fenner Gas Plant, Fenner presented Butch Blezinger, who was employed by the successive operators of the Fenner gas processing plant from October, 1980 until it was disassembled in the time period 1994 through 1997. Due to his long familiarity with the site, Mr. Blezinger was able to describe the day-to-day operations of the site.

Blezinger noted that the emergency saltwater overflow pit often had an oil skim on top. When the skim became fairly thick, it was piped back up to the separators, with the oil going to production tanks and the saltwater either returned to the saltwater tanks, saltwater overflow pit or piped to the disposal well. The overflow pit did not have a liner. Although employed on the site of the gas plant and surrounding oil and gas leases at the time the pit was ordered dewatered and closed by the Commission, Blezinger could not remember seeing any of the stained soil in the pit hauled away. Blezinger was aware that 55 gallon drums were onsite for storage of chemicals used in the gas processing plant, such as glycol and lubricants, but did not see any barrels buried onsite.

Blezinger continued to be employed by the successive operators and was employed by Magnum when the gas plant was decommissioned. He remembered that R&R Services broke up the concrete retainer wall around the old tank battery, dug up the flow lines and scraped up the soil within the boundaries of the tank battery. Stained soil at the site of the gas plant was bulldozed into three piles. Blezinger testified that after the soil within the boundaries of the tank battery was piled up, only red dirt (clay) remained. The on-site tanks were removed and re-used elsewhere. Blezinger

recalled that as Dr. Fenner's environmental consultants found additional buried lines while trenching, Magnum would return to the site and remove them.

Soil and Groundwater Sampling Results Pre-dating the Hearing

By letter dated August 5, 1997, Fenner sent Magnum a copy of a site assessment performed by Newpark Environmental Services ("Newpark"). Newpark had submitted its report to Fenner on July 29, 1997, stating that it had taken 12 soil samples from trenches dug three to six feet deep on the 4.978 acre tract. The majority of the trenching and sampling (Samples 1-7 and 12) was done within a 1.7 acre fenced enclosure where the gas plant facilities had been located. A baseline sample was taken offsite to the north (see Exhibit 2).

The samples taken were measured for TPH (Total Petroleum Hydrocarbons), chlorides and metals such as chromium, mercury and lead. Several of the samples taken by Newpark were well in excess of background levels. The highest readings were obtained from samples taken outside the 1.7 acre gas plant site, but within the 4.978 acre gas plant lease tract. Trenches outside the 1.7 acre fenced enclosure were dug 7 to 12 feet deep by an individual known to Fenner as Preissmeyer, who was given permission by Fenner to trench any area that he felt should be trenched. Preissmeyer trenched the saltwater overflow pit location. (Transcript, Vol. 2, p. 142, lines 19-25, and p. 143, lines 1-17) High readings were obtained for Sample 9, taken in the debris field, and Samples 10 and 11, taken at the site of the former emergency saltwater overflow pit. Newpark noted the excessive elevations of TPH and chlorides found in several samples, consistent with soil impacts caused by the releases of hydrocarbons, saltwater and associated fluids.

In addition to the testing of soil samples, the assessment also noted the burial of solid waste (debris) such as pipe, 55 gallon drums and cable on the western edge of the site, which indicated improper waste disposal. The report noted the trench sidewalls showed sand immediately below ground surface, with an underlying layer of dense light red to orange clay. The depth of the surface layer of sand varied throughout the site.

Wayne Crouch of Wayne J. Crouch Environmental Services later conducted several additional site investigations for Fenner. On October 7 and 8, 2003, Crouch investigated the Fenner site and prepared a report dated October 15, 2003. Crouch again investigated the site on August 25, 2006, and prepared an informal report dated September 4, 2006 as well as a more comprehensive report dated September 10, 2006. Crouch also investigated the site on November 9, 2006, and prepared a report dated November 13, 2006. The November 13, 2006 report notes the discovery of a plastic vapor barrier in a portion of the debris field. Using a magnetometer, Crouch determined the extent of the debris field. Crouch excavated Trenches 1 through 5 in the debris field, finding buried metals, hydrocarbon saturated soils, lumber, signs, cans and plastic. A strong hydrocarbon odor was associated with the trenches in the debris field. Trench 1, actually more of an open pit, was dug 9 feet deep and 31 feet square. At a depth of 8 feet, groundwater with an oily sheen began entering the pit.

Trench 5 was excavated to a depth of 10 feet and 25 feet square. At a depth of 3.5 to 5.5 feet below the surface, a plastic vapor barrier was found, with trash below the vapor barrier. Crouch stated that a vapor barrier is normally used to contain volatiles and prevent the volatiles and associated odors from being exposed to the atmosphere above ground. Fenner argued that the presence of this vapor barrier is evidence of fraudulent concealment of unlawfully buried waste, the basis for his contention that the transfer of the gas plant from Amax to Tenax on September 1, 1982 was invalid.

In Trench 5, Crouch found 8 to 10 drums and sampled the residue within one drum. The liquids sampled from inside the drum exceed the TRRP Tier 1 standards. Xylene tested at 211,000 ppb, which exceeded the Tier 1 PCL (Protective Concentration Level) of 61,000 ppb. Ethyl benzene tested at 28,500 ppb which exceeded the Tier 1 PCL of 3,800 ppb, and benzene tested at 390 ppb which exceeded the Tier 1 PCL of 13 ppb.

Crouch dug three trenches in the emergency saltwater pit area. Four feet below the surface, the soil turned black and remained that way to the bottom of each trench. Two trenches were dug eight feet deep and one was dug seven feet deep. A strong hydrocarbon odor was associated with each trench. From the trenches, Crouch took soil samples S-1, S-2 and S-3. All showed high readings for benzene, ethyl benzene, toluene, xylene, arsenic, cadmium and lead. For example, the soil sample for benzene in S-1 showed a reading of 25,900 ppb (the TRRP Tier 1 PCL level for benzene in soil is 13). The Crouch reports contain several photographs showing the oil-coated debris dug from the debris field.

Fenner presented several photographs showing trackhoe buckets overflowing with black oilfield waste and/or solid debris such as pipe. These photographs were taken in the area of the saltwater disposal pit and the debris field.

Water samples were taken from Monitoring Wells 2 and 3 (MW-2 and MW-3). MW-2, located inside the former tank battery area of the gas plant, yielded a benzene reading of 6.25 ppb (the TRRP Tier 1 PCL level for benzene in water is 5 ppb). In MW-3, which is drilled through the location of the filled emergency saltwater holding pit, Crouch's water sample showed 896 ppb of benzene (the TRRP Tier 1 PCL level for benzene in water is 5 ppb).

In his September 10, 2006 overview of all the testing conducted at the site of the gas plant, including the 2001 tests conducted by RMT on behalf of Magnum, Crouch stated that "...there is soil and groundwater contamination on the subject property that exceeds the Texas Commission on Environmental Quality Tier 1 PCLs for residential property."

Dr. Fenner took pictures in March, 2007 of what appeared to be oil seeping from a bank adjacent to the gas plant site into a roadside ditch during a period of heavy rain. However, Fenner stated that it soon dries up into a crusty material and disappears in about a week.

November, 2007 Soil and Groundwater Sampling Results

On August 29, 2007, the parties decided additional sampling was needed to supplement the results of prior testing. In November, 2007, Fenner, Magnum and a representative of the Commission's Site Remediation Section visited the gas plant site together and took additional samples. Fenner's representatives, Bruce Darling and Wayne Crouch, and Magnum's representative, Brad Snow, took samples together and split the soil boring samples and the monitoring well water samples.

New Monitoring Well MW-4B was drilled in the area of the debris field. The first attempt to drill a monitoring well (MW-4A) found only solid clay and no groundwater. Darling and Snow jointly agreed to move the drilling rig over a few feet, resulting in the successful penetration of a water-bearing sand. Samples from soil borings were taken based on PID (Photo Ionization Detector) readings, which indicated the presence of hydrocarbons.

An interim report prepared by Dr. Bruce Darling was provided to all parties and was the subject of argument in the reconvened hearing held December 11, 12 and 13, 2007. Dr. Darling provided his final report to Fenner on January 8, 2008. It was distributed to all parties and entered into the record of the hearing. The results were as follows:

1. The soil samples taken from the boring of MW-4B were analyzed for metals (arsenic, barium, chromium, iron, lead, selenium and silver), TPH and Anions (Chlorides). All analytes were within TRRP Tier 1 PCL levels except TPH in the C6 - C12 range. At 6.5 to 7.0 feet, the sample tested at 200 mg/kg, over the PCL limit of 10 - 50 mg/kg. At 8.5 to 9.0 feet, the sample tested at 130 mg/kg.

2. Four new soil borings, RMT samples 19, 20, 21 and 22, were taken within the 1.7 acre gas plant site. All were dry at 17 and 18 feet below the surface, with no evidence of any groundwater.

    A. Boring RMT #19 was tested for Metals, Volatiles, TPH and Anions. All analytes were within TRRP Tier 1 PCLs.

    B. Boring RMT #20 was tested for Metals and Anions. All analytes were within TRRP Tier 1 PCLs.

    C. Boring RMT #21 was tested for Metals, Volatiles, TPH and Anions. All analytes were within TRRP Tier 1 PCLs except for Toluene at 4.170 mg/kg, over the PCL limit of 4.1 mg/kg and TPH in the C6-C12 range at 2,220 mg/kg, over the PCL limit of 10-50 mg/kg.

    D. Boring RMT #22 was tested for Metals, Volatiles and Anions. All analytes

were within TRRP Tier 1 PCLs.

3. Groundwater samples were taken from Monitoring Wells #2, #3 and #4B (MW-2, MW-3 and MW-4B). Exceedances of TRRP Tier 1 PCLs were noted for arsenic, barium, iron, chloride and benzene. When tested at Tier 2 levels, the arsenic, barium and benzene were within Tier 2 PCLs. However, exceedances of Tier 2 PCLs were still noted for iron and chlorides in all three wells. (See Exhibit III, which is page 8 of the Darling report)

In sum, there were multiple exceedances of TRRP Tier 1 PCLs in soil sample RMT# 21. In regard to groundwater testing from the three monitor wells, there were five exceedances of Tier 1 PCLs. However, when Tier 2 testing was applied to the groundwater samples, only two exceedances remained: iron and chloride. The Darling Report states "The total iron and dissolved iron concentrations listed in Table 6 are consistent with a large mass of available iron in the soils, along with conditions in the shallow groundwater system that are sufficiently anoxic to drive the reduction of ferric iron to ferrous iron.....With regard to the concentration of major ions, the analytical results range from slightly saline (MW #2) to saline (MW #4) and the overall hydrochemical composition is sodium-chloride." Darling stated that there is presently insufficient well control to make a reasonable assessment of the occurrence of water in the subsurface.

Magnum

Magnum asserts that the only reason it is before the Commission is that Fenner lost his case against Magnum in the 155th District Court in Austin County, the Court of Appeals and the Texas Supreme Court. Having exhausted his judicial remedies, Fenner now seeks to prevail in an administrative venue.

Magnum presented the expert testimony of Lloyd Deuel ("Deuel"), a Research Soil Chemist with Texas A&M University. Deuel has studied 150 pits worldwide and over one hundred in Texas. Deuel testified that the soil at the Fenner Gas plant site is a straber soil, as identified in the Austin County Soil Survey, published by the USDA in association with the Texas Agricultural Experiment Station. A straber soil is a clay pan soil, consisting of a sandy surface over a clay pan. This is a soil in which clays in the upper portion of the profile have translocated during soil development and accumulated at a lower level into what is called an argillic horizon, or clay barrier. The hydraulic conductivity at the argillic horizon is orders of magnitude less than the sandy layer above, making it very difficult to move water through. Such soils are incapable of holding much water, which quickly drains away along the top of the pan. The clay pan typically forms at a depth of 18 inches to 3 feet by the alluviation of clay particles from the surface to the subsurface, filling the pores with clay. Plants on such sites usually derive their moisture from the top 10 to 20 inches of soil. Deuel believes this natural clay pan effectively barred any on-site spills from reaching groundwater.

Magnum's position is that Fenner's own activities, that is, digging trenches all over the gas

plant tract and installing monitor wells without safeguarding against cross-contamination, is the primary cause of any observed contamination. Magnum argues that its obligation to Fenner ended when Fenner's trenching disrupted the natural clay pan in the soil which had acted as a barrier to contaminant penetration to the subsurface water.

Magnum argues that this protective clay pan layer was repeatedly breached by Fenner's activities in conducting sampling of the site, creating conduits for contaminant penetration from the surface to groundwater. Fenner used trackhoes to dig trenches eight to ten feet deep. The first set of trenches was dug by Newpark Environmental on July 21, 1997. A second set of trenches was dug by Eddie Seay Consulting and ECD Environmental June 23, 1998. A third group of trenches was dug by Fenner's third set of experts, Rex Meyer and Van Thompson (with Rimkus) to a depth of 6 to 12 feet. Magnum offered an exhibit showing the location of the trenching, including the location of soil borings and monitor wells (see Exhibit II).

Fenner's trenches were left open for years, slowly collapsing into themselves and allowing contaminants above the clay pan to drain into the trenches and from there to groundwater. A Commission District Office inspection report dated January 4, 2001 noted "....several trenches remain open in the area...Trenches are approximately 5' wide and 5' deep and of varying lengths." Fenner, on cross-examination, admitted that the trenches were open in 2000. In January of 2001, Soil Chemist Deuel was on the Fenner site with Brad Snow to test for salinity, sodicity and fertility, and noted the considerable disturbance of the surface.

> A. (Deuel) ...the most striking thing that I noticed was in particular the well construction at Monitor Well No. 3 and then the trenching that went into that pit, the disturbance of that pit floor, taking materials down to 12 foot and putting that in contact with the water and then constructing a monitor well at the very end of that trench.
> (Transcript, Vol. 5, p. 20, lines 14-21)

In addition to the open trenches and other surface disturbances, Deuel noted in his 2001 visit that the site was covered in lush bermuda grass with no apparent salt scars. A Commission District Office inspection report dated January 4, 2001 agreed and stated "Grass covers the entire site and no dead/barren areas were observed".

Magnum believes the drilling and completion techniques employed in constructing the monitoring wells caused the wells to be completed incorrectly and in such a way as to cause cross-contamination from relatively shallow groundwater zones to deeper groundwater zones at 25 to 35 feet in depth. Magnum notes that the Fenner monitoring wells were not locked, which could allow anyone to introduce contaminants into the wells.

Monitoring Well 3 ("MW-3") was drilled in the middle of the former saltwater emergency overflow pit, with an improperly placed sleeve that allowed contaminants to transfer from the pit to

groundwater below. The slotted screen in this well comes up into an area of high hydrocarbon readings, creating a conduit to groundwater below the pit. The bentonite plug is at a depth of 6 to 8 feet, above the floor of the pit. According to Magnum, groundwater samples taken from MW-3 are contaminated as a result of the improper completion of the well.

Deuel testified that the original construction of the emergency saltwater overflow pit would have broken the clay pan, but in the newly constructed pit, clay particles would have had a sodic reaction with saltwater, thus forming a sealant. Montmorillonite is the predominant clay on the Fenner property, and the sodic reaction would have taken only a couple of months to complete, thus sealing the pit floor. The sodium and clay would create the same properties as drilling mud in a pit, making it impermeable. The sodic clay and the hydrocarbons would act as a continuing barrier to water leaching through the pit. Any remaining oil and saltwater in the pit would be effectively barred from migrating down to groundwater.

Photo Ionization Detector (PID) analysis of the cores at the time MW-3 was constructed indicates the pit floor was holding back hydrocarbons. Deuel stated that drilling the monitoring well through the pit floor was a bad idea because it breached the sealant.

Deuel testified that when the pit was closed in 1982, it would have been dewatered and the side walls pushed in. Then the pit would have been covered with three to four feet of clean soil. Deuel stated that there are probably more than one million pits like this in Texas and recommends leaving them alone. As an example, he cited the Kennedy Heights pit, with an aerial extent of five acres, but a depth of only five feet. A sample taken from the pit would have a TPH level of 59,000 PPM, but the pit has homes on it, grass is growing and there is no impact on the homes.

From the standpoint of Deuel, as a soil scientist, the Fenner site is not a hydrologically sensitive area. The sampled transmissive water-bearing layer is six inches of sand at a depth of nine feet. A soil scientist would consider this soil water because plant roots will pick it up. The primary grass found on this site, bermuda, has roots that go down 15 feet. This fact is useful in remediation, as bermuda will extract up to 1,000 pounds of salt per acre per year. Therefore, Deuel recommends natural attenuation as the preferred technique. Freshwater flowing over the saltwater impacted soils of the Fenner site will not transmit the chloride. The plants observed below the Fenner site, towards the creek, are lush and green and have not been impacted by salts or chemicals of concern found upgradient.

Deuel does not believe anyone would drill a well nine feet deep as a water supply. Oilfield waste aside, at nine feet, there is a significant probability of bacterial contamination from cow manure. Most wells in the area, with the exception of one well operated by a windmill (42 feet deep), are at depths of 365 to 385 feet deep.

Deuel testified that Statewide Rule 8, in 1982, allowed burial of debris in the ground. In this case, a diffusion barrier was placed over the debris and several feet of soil placed over the diffusion

barrier. Deuel notes that the diffusion barrier deflects percolating water around the buried debris and drums, preventing leaching from the debris to the groundwater. The dirt placed on top of the barrier allows grass to grow. In Deuel's opinion, if the land use is not altered and if the land surface is not altered, it is best to leave the buried pit alone. Deuel testified that Samson was the last operator to use the debris pit

> Q. (Stevens) And was there at that time a determination as to when this dump pit had last been utilized by the parties of Samson, ATAPCO and Magnum who were then the defendants in the Austin lawsuit?
> A. (Deuel) I think the last party would have been Samson.
> Q. The last party would have been Samson?
> A. That is correct.
> Q. That did what?
> A. That would have utilized the trash pit.
> (Transcript, Vol. 5, p. 54, lines 24-24 and p. 55, lines 1-7)

In his testimony, Deuel stressed the importance of causation. There may have been chemicals of concern that exceeded Tier 1 or Tier 2 TRRP levels on the Fenner site, but Deuel believes the primary causation of soil and groundwater contamination was Fenner's action in repeatedly trenching the plant site and drilling improperly installed monitoring wells.

Magnum also takes issue with the various environmental reports prepared for Fenner which indicate exceedances of Tier 1 TRRP standards. Tier 1 standards are those developed by TCEQ so individuals or agencies doing environmental investigations will have a standard for comparing their results. The Tier 1 standards do not yield a final determination. They are merely a starting point. If a sample exceeds Tier 1 standards, there are further tests that may be done to determine whether the exceedances are a threat or not. The sample may be further tested under Tier 2 standards or an SPLP (Synthetic Precipitation Leaching Procedure) leach test.

Many of the exceedances the Fenner complaint is based on are exceedances of Tier 1 standards. When Magnum tested the same areas, it also sometimes found exceedances of Tier 1 standards, but further testing under Tier 2 standards or SPLP procedure found most samples within limits with no exceedances. Of those samples that did remain exceedances, Magnum notes that they are in close proximity to areas that Fenner trenched and left open to contamination or drilled monitor wells into.

Magnum believes that some of Fenner's findings even at the level of Tier 1 exceedances are unreliable. In the October 15, 2003 Crouch report, the appendix has EFEH Associates lab report for Samples S-1, S-2, S-3 and T-1. The quality control data shows use of an "n-Triacontane" spike with a normal recovery range from 40 to 160. Anything outside that should be explained in a narrative from the testing company. The spike recovery for S-1 is 442 and S-2 is 658, both well outside the recovery range. When the percent spike recoveries are outside of accepted bounds for data, the value

placed on the result is that the presence of a compound is indicated, but there is not high confidence in the ability to quantify the amount.

In the same report, "Toluene-d8" is used as a spike with recovery limits of 56 to 134 percent for the BTEX sampling of S-1, S-2, S-3 and T-1. All are above the recovery factor, coming in at 158, 157, 166 and 146 percent respectively.

Rajan Ahuja, Vice President of Operations for Magnum, stated that he repeatedly offered to remediate the 1.7 acre gas plant site based on the findings of the Newpark Report, but Fenner refused the offer. Mr. Ahuja first came in contact with the Fenner property in 1991. At that time, the 1.7 acre gas processing plant site was enclosed by a fence. The 1991 agreement, under which Magnum took over the plant site, was signed by Avinash Ahuja, the brother of Rajan Avinash. Rajan Ahuja says he was not aware any part of the plant site had been used for disposal of debris in a trash pit. His offer to remediate the 1.7 acre plant site was based on his understanding at that time, which he later found to be incorrect, that the plant site consisted only of the enclosed 1.7 acres, rather than the 4.978 acres described in the 1991 agreement In 1991, the area outside the 1.7 acre gas plant site was pasture. Rajan Ahuja stated that he had no occasion to drive out over the pasture.

Mr. Ahuja testified that when Magnum abandoned the gas plant and removed the equipment, its policy on pipe removal was to dig it up, or, if over three feet deep, cut it off and fill it with cement, abandoning it in place. According to Ahuja, when Newpark conducted its deep trenching, Magnum made five trips out to the site over a two month period and removed the pipe Newpark had uncovered.

November, 2007 testing

In the testing that was done by both parties in November, 2007, Magnum notes that there were very few exceedances of TCEQ standards. Some exceedances were slight. For example, barium, found by Magnum at 12.2 mg/l in 2001, was found at 2.7 mg/l in MW-2 in 2007. The TCEQ standard is 2.0 mg/l. Magnum also found chlorides in MW-2 at 3220 mg/l in 2001 and only 867 mg/l in 2007. These are still exceedances, but less than in previous years. Barium and chloride have shown a four-fold drop in the intervening years. Magnum believes this indicates that monitored natural attenuation is the best course.

Deuel does not believe the barium levels found are significant. He believes the barium may be native. Salt can move and interact with barium to make it more soluble, but over time it will attenuate. Deuel stated that there are a number of remediation options available. If attenuation is too slow, it is possible to speed up the reaction by adding calcium sulfate, which will precipitate the barium. As to the BTEX in MW-2 and MW-4B, natural attenuation is feasible. The numbers are low and the half life of benzene in soil is about six days. As an active measure, injection of air or microbes will reduce the BTEX. Natural attenuation would takes months, but if injection is used, attenuation would occur in weeks.

Most of the other samples, when subjected to secondary standards, passed the TRRP levels. RMT 19, 20 and 22 were within Tier 1 levels. After Fenner's testing was completed, the only exceedances in the groundwater samples were for iron and chlorides. Magnum's expert agreed that the exceedance for chlorides was by orders of magnitude.

During the course of the civil trial, Magnum saw no need for an action response. In light of the results of the November, 2007 testing, Magnum still sees no need for an action response. In RMT 21 and 22, Snow found only detectable glycol, below response levels, not an exceedance. RMT 21 showed a Tier 1 exceedance for BTEX, but the parties split the sample and it passed Magnum's SPLP leach test. Magnum tested for PCBs (polychlorinated biphenyls) in the 1.7 acre gas plant site and they were non-detectable. Overall, Magnum believes no remediation is needed.

Magnum argued that the monitor well samples cannot be relied on due to their proximity to contamination sources. MW-2 was drilled between two Fenner trenches. MW-3 is drilled through the floor of the saltwater storage pit and was not sleeved properly. MW-4B is drilled adjacent to the debris field. Magnum asserts that the high readings in these wells are due to Fenner's trenching and improper well completion techniques. In MW-4B, Magnum saw no evidence that the soil drilled through was disturbed, but fears that MW-4B was drilled too close to an area that was trenched in the debris field, with possible contamination from updip.

Magnum does not contest that there is benzene in MW-4B or in MW-3. Magnum's expert witness, Snow, stated that natural attenuation is the process of decreasing the concentrations of a COC such as benzene over time, by biodegradation, dilution, adsorption and other mechanisms. Snow agrees that chlorides in MW-3 and MW-4B are elevated above background, possibly by orders of magnitude. Magnum recommends monitored attenuation for this site, which means periodic sampling of groundwater to determine whether concentrations are increasing or decreasing.

Anadarko

Anadarko asserts Fenner is mistaken in his attempt to attach successor liability to Anadarko. Fenner connects Anadarko to this proceeding based on a Commission search which attempted to find successors to Amax. Anadarko believes that this search is irrelevant. The operation of the Fenner Gas Plant and any liabilities accompanying the plant site were transferred from Amax to Tenax and Samson in 1982.

Anadarko presented the testimony of Richard Melamed, an expert business, property and title attorney who reviewed the language of the September 1, 1982 transfer from Amax to Tenax. The relevant language states:

> Assignee assumes all of Assignor's obligations, responsibilities and liabilities which arise on or after the effective date hereof, as Operator of the wells located upon said leases, and under the applicable operating agreements covering said wells and leases.

(September 1, 1982 Transfer, Assignment and Conveyance, page 3) Melamed characterized this language as a covenant, promise and agreement by Tenax Oil and Gas Corporation to specifically assume any liabilities from Amax Petroleum Corporation regarding the subject property, including the gas plant. Melamed stated that environmental liability is an important and carefully negotiated portion of all transfers of property rights and contracts for the sale of assets and assignments.

Melamed has seen instances in which fraud was alleged after a transfer. His experience is that fraud does not invalidate the transfer, but does give rise to certain judicial remedies in the assignee or grantee, usually a right to damages. In extreme instances, one judicial remedy is rescission of the contract, but this is rare. In Melamed's view, Amax transferred a liability, moved on, and any future merger of Amax into another entity did not carry that liability with it. Melamed also notes that a third party, whether the RRC or Fenner, cannot stand in the shoes of another and enforce that party's contract. That is, supposing for the sake of argument that fraudulent concealment had occurred, that is a cause of action to be asserted by Tenax or its successor, not by Fenner.

Anadarko notes that although Fenner alleges fraud occurred in the transfer from Amax to Tenax, it has not presented any evidence that fraud occurred. Fenner's basis for allegations of fraudulent concealment is its discovery of a vapor barrier over a portion of the debris field on the plant site. Anadarko argues that the vapor barrier and the clean soil placed above is a standard industry practice, not an effort to commit fraud.

Anadarko also notes that there has been no finding by the Commission that Amax violated Statewide Rule 8 on the Fenner Gas Plant site. Fenner has presented evidence of groundwater contamination on the site, which may be violation, but there has been no proof that the contaminants are there as a result of any actions by Amax. Neither has there been any Commission record entered into evidence, because there are none, that Anadarko was ever operator of the Fenner Gas Plant.

Anadarko argues there is no evidence in the record indicating fraud committed by Amax. Absent that, the September 1, 1982 transfer to Tenax, and the subsequent November 1, 1982 transfer to Samson can be relied on. In view of the lack of evidence against it, Anadarko requests that it be dismissed from this proceeding.

Railroad Commission Site Remediation Section

The staff of the Site Remediation Section of the RRC has reviewed the reports filed by experts for both Fenner and Magnum in this dispute. Staff finds that both sets of reports raise serious questions regarding the Fenner Site. Staff finds 6 AOCs (Areas Of Concern) on the Fenner site and believes they should be studied by collecting additional soil borings and drilling more monitoring wells.

Site Remediation agrees that TRRP standards should be applied to the site cleanup and that

TRRP Tier 2 testing and SPLP testing (Synthetic Precipitation Leaching Procedure) are applicable for risk-based analysis. However, Site Remediation notes that SPLP testing is not routine for the Commission. SPLP tests are used to determine on a site specific basis if there is a potential for leaching above a drinking water standard from any single point in the soil. A single point may not be typical of the overall site, making it necessary to obtain several samples yielding a more representative overview of the entire site.

Site Remediation agrees that trenching disturbs natural barriers such as clay pans and also agrees that anytime a place is created where water can pond, such as an open trench, the infiltration rate is maximized at that location. Site Remediation also agrees that salt can bind with soil and severely limit its infiltration capacity.

Site Remediation observed that Magnum's Snow report, made in August, 2001, had value. Snow took the worst case scenarios, even those by consultants for Fenner, and ran TRRP Tier 1 levels, Tier 2 levels and sometimes an SPLP test. However, Site Remediation noted that some areas of elevated hydrocarbons were not comprehensively tested (such as the compressor and dehydration unit), which limited the value of the Snow report.

Site Remediation does not agree that the currently available sampling and testing accurately reflects the true state of contamination on the five acre gas plant site. The site has been investigated to some degree, but by different parties at different times with different objectives. The currently available test data from both Fenner and Magnum does not meet the larger objective of getting an overall, comprehensive view of the situation, getting the contamination sources defined, the contaminated area defined and a remedy developed.

Site Remediation's History with the Fenner Gas Plant

By letter dated March 18, 2004, Site Remediation informed Magnum that it had reviewed the August, 2001 report prepared by RMT, Inc. (the Snow Report) regarding the Fenner Gas Plant site. Site Remediation noted that monitor wells installed in previous investigations had shown hydrocarbon contamination and that there were elevated metal concentrations in the vicinity of the former Tank Battery and the Emergency Saltwater Pit. Site Remediation expressed its concern that the RMT, Inc. report found levels of benzene, arsenic and barium in groundwater exceeding Tier 2 Groundwater PCLs at Monitoring Well 3 (MW-3).

The letter asked Magnum to identify specific Areas Of Concern (AOCs) and assess each AOC for Chemicals Of Concern (COCs). At that time, the compressor area had been analyzed for PCB contamination and neither the compressor nor the dehydrator area had not been tested for triethylene glycol. The letter also noted that a review of Commission P-5 and P-4 records indicated the possibility that Anadarko might be a successor in interest to Amax Petroleum Corp., and that Anadarko would be copied on all further communications. The letter closed with a request for a workplan for further investigation needs, including further groundwater monitoring, with an

identified closure objective for each Area Of Concern.

By letter dated September 23, 2004, Magnum replied to Site Remediation, stating that Magnum stood behind the RMT, Inc. evaluation that the plant site complied with risk-based analysis for residential use. Magnum stated that this was the most restrictive test, and therefore Magnum believed it had no further responsibility for site restoration. Magnum also noted that the plant site had been compromised by the trenching performed by Fenner, which Magnum believed was the actual source of some of the high contamination levels found. Despite its contention that it had no further responsibility for the plant site, Magnum offered its cooperation and designated 6 AOCs:

1. The background sample sites
2. The plant site
3. The emergency saltwater pit
4. The saltwater disposal well
5. Agricultural productivity
6. Scrap metal and drums

By letter dated December 2, 2004, Site Remediation requested that Magnum collect additional information at the gas plant site by monitoring groundwater flow. Testing for TPH, ethylene glycol and triethylene glycol at the dehydrator location and PCBs at the compressor location was also requested as well as additional monitoring at the emergency saltwater disposal pit and debris pit. Continued sampling of Monitoring Well 1 at the site of the former saltwater disposal well was requested, but Staff suggested Monitoring Wells MW-1A and MW-S be plugged. The letter also informed Magnum that Staff had visited the site on November 17, 2004 and that the trenches on the site that were formerly open had been backfilled.

By letter dated March 31, 2005, Magnum replied and reiterated its complaint that the site had been compromised by Fenner's extensive trenching and improperly installed monitoring wells, both of which served as conduits for contamination. Magnum's consultant, RMT, Inc., reported that it believed Monitoring Wells MW-2, MW-S and MW-1A were possible sources of cross contamination and should be plugged. RMT, Inc. also stated its belief that MW-3, drilled through the emergency saltwater pit, had provided an artificial hydrologic connection between the pit contents and underlying groundwater.

Magnum proposed to (1) resample MW-2 for benzene and MW-3 for arsenic and barium; (2) drill two soil borings in the compressor area and test for petroleum hydrocarbon impact and PCBs; (3) drill two soil borings in the dehydration unit area and test for ethylene glycol and triethylene glycol; and (4) present the results to the Commission in a summary report.

By letter dated May 16, 2005, Site Remediation concurred with the scope of work proposed by Magnum and suggested additional soil borings and soil sampling at the emergency saltwater pit and additional monitor wells in the vicinity of MW-2 and MW-3, to better determine the direction

of groundwater flow and related groundwater contamination concentrations.

By letter dated June 3, 2005, Magnum responded to Site Remediation and stated that it did not believe additional samples from the emergency saltwater pit were necessary, as there were already numerous samples taken from that area and they did not appear to exceed TRRP standards. Magnum also stated that it believed the request for additional monitor wells was premature, in that testing of MW-2 and MW-3 might not reveal exceedances of PCLs, obviating the need for further wells.

Magnum's June 3, 2005 letter also requested that the Commission obtain an access agreement from Fenner so that work could proceed, indicating to Site Remediation that Fenner was not allowing Magnum on the plant site. An access agreement was not reached and no further testing took place.

It was not until the August, 2007 hearing dates that Fenner agreed further testing was warranted and arranged to conduct joint testing with Magnum in November, 2007, to be witnessed by Site Remediation. During that period of testing, Magnum substantially complied with the requests contained in Site Remediation's December 2, 2004 letter.

Site Remediation's Request for Additional Sampling

Site Remediation believes that the sampling conducted in November, 2007 was helpful, but would prefer that Magnum do a more complete site assessment to delineate the nature and extent of the contamination and then present a plan to remedy the contamination. At MW-2, there were OVM (Organic Vapor Meter) hits in the core of the water zone, indicating the presence of contamination before the well was set. MW-2, in the dehydration area, showed the presence of benzene, barium and chlorides. The dehydration area also showed high glycol readings, which requires additional groundwater sampling plus additional soil borings. The saltwater overflow pit area needs additional monitor wells to determine whether there is a plume of contamination and the direction it may be migrating in.

Site Remediation does not necessarily agree with Magnum that MW-3 is the cause of groundwater contamination at the pit location. The saltwater overflow pit floor as originally dug, might be in, rather than above, the groundwater sand and could have caused the contamination prior to the drilling of MW-3. In the area of the debris pit, additional monitor wells and soil borings are needed to provide a better idea of the aerial extent and depth of the pit.

Site Remediation's Evaluation of the Case

Site Remediation states that there is groundwater on the site, that there is soil and groundwater contamination, and that the contamination is due to oil field waste. Site Remediation is not aware of any permit to discharge oil field waste on the Fenner property and argues that there

have been violations of Statewide Rule 8(d) on the gas plant site, although it cannot say by which operator. The groundwater contamination is an ongoing violation of Statewide Rule 8(b) on the gas plant site. Site Remediation is not aware of any violation of Rule 91 in this case. Site Remediation looks to Rule 91 for appropriate cleanup standards, not as a rule that is violated in and of itself.

Despite Fenner's allegations, Site Remediation has not seen any evidence of an oil seep at the Gas Plant site. What Fenner believed to be an oil seep may have been nothing more than black algae, which dries up and blows away after a few days as Fenner described. There is no evidence that oil is currently seeping from the plant site and draining into a ditch leading to waters of the State.

According to Site Remediation, the available data shows groundwater contamination at two locations on the facility and some soil contamination that should be further assessed. The end point sought is remediation, compliance with TRRP standards and, ultimately, issuance of a "No Further Action" letter.

Depending on the results of further testing, Site Remediation believes a variety of remedies could be appropriate. The remedy may be removal of soil or it may be attenuation. Another possible remedy is called pump and treat, in which both microbes and magnesium hydroxide can be injected into the groundwater to consume the hydrocarbons. An oil saturated zone, such as the bottom of the former saltwater emergency overflow pit, could be left in place underground if it was found not to be contributing to a groundwater plume. Alternatively, if the oil saturated zone is found to be contributing to a plume, the contaminated soil could be required to be removed. Likewise, the contents of the debris field could be remediated and left in place or could be required to be removed.

Site Remediation prefers to see a sampling program that is representative of the entire area, not just the hot spots like the debris field, saltwater overflow pit and dehydration area. Site Remediation does not believe it can make any final remediation decisions based on the currently available data.

EXAMINER'S OPINION

This is a complaint case. The burden is on the complainant, Dr. C.E. Fenner, to prove the allegation that Anadarko Petroleum Corporation and Magnum Producing, L.P. have violated Statewide Rules 8(b), 8(d) and 91. The examiners believe that Fenner has failed to carry that burden.

Anadarko

There is no dispute that Amax Petroleum Corp. was, at one time, an operator of the Fenner Gas Plant. Site Remediation attempted to find a valid address or successor to Amax Petroleum Corp. by enlisting the help of Commission Staff. Staff found a Secretary of State filing of AMAX Oil & Gas, Inc. in 1987. Following the trail of name changes and auto-P-4 transfers, Staff traced a succession from AMAX Oil & Gas Inc. through several entities to Anadarko E&P Company, LP

in 2002. On the strength of that line of succession, coupled with a theory of fraudulent concealment, Fenner argued successor liability by Anadarko and included Anadarko in the present complaint.

In rebuttal of Fenner's argument, Anadarko showed that Amax Petroleum Corp. transferred all its interest, including liabilities, in the Fenner Gas Plant to Tenax Oil & Gas Co. on September 1, 1982. Anadarko presented expert testimony that environmental liability is a carefully considered part of the contractual transfer of facilities such as gas processing plants. In the words of Anadarko's expert witness, Richard Melamed, the conveyance from Amax to Tenax on September 1, 1982, "...transfers all of Amax Petroleum Corporation's rights to the plant site to Tenax Oil and Gas Corporation." [Transcript, Vol. 3, p. 165, lines 20-21].

Fenner argued that Amax had concealed waste under a vapor barrier prior to the transfer, thereby committing fraud which invalidated the transfer. This argument fails for several reasons. First, the plastic barrier serves the dual purpose of preventing vapors from rising to the surface and also acts as an umbrella-like impermeable barrier to water percolating from the surface to groundwater below. The plastic cover, by itself, does not prove an intent to commit fraud. Second, although Fenner presented photographs showing the presence of a vapor barrier, no evidence was presented that Amax was the party that installed it. Third, even assuming for the sake of argument that there had been an attempt to fraudulently conceal the debris pit from a successor, fraudulent concealment is a cause of action that must be brought in district court, not before the Commission, which has no authority to interpret contracts or impose contract remedies. As a corollary of the third point, Anadarko's expert, Melamed, noted that fraudulent concealment is a cause of action that arises in contract, with remedies available to a party to, or beneficiary of, that contract who suffers injury. Fenner was not a party to the transfer of the gas processing plant from Amax to Tenax, or a beneficiary, and therefore, is without standing to assert fraudulent concealment, either at the Commission or in District Court.

Other than an unsupported allegation, there is no evidence in the record to show that Amax engaged in fraudulent concealment of an environmental liability prior to transferring the Fenner Gas Plant to Tenax. That being the case, Fenner cannot show that Asnadarko is the successor to any liability retained by Amax. Anadarko is, at most, the successor of a former operator of the site.

Magnum

There is no dispute that Magnum was the last operator of the subject gas plant. The examiners have taken Official Notice of records on the Commission mainframe under "R-3 Plant Master Inquiry" indicating that Magnum operated the Fenner Gas Plant under Commission-issued Plant ID # 03-1048.

Statewide Rule 91 (Cleanup of Soil Contaminated by a Crude Oil Spill) describes the actions that must be taken to clean up a spill of crude oil or light hydrocarbon liquids. Site Remediation considers Statewide Rule 91 as a guide to remediation, not as a rule that itself is violated if a spill

occurs. Statewide Rule 91 was adopted effective November 1, 1993. The evidence in the record is that the saltwater overflow pit was dewatered and backfilled in 1982. The evidence also indicates that the debris pit was last used by Samson, which sold its interest in the gas plant to ATAPCO in 1987. Fenner presented no evidence of any oil spills or discharges occurring after the November 1, 1993 effective date of Statewide Rule 91. Fenner has failed to prove any violation of Statewide Rule 91.

Fenner has inferred that there must have been an unpermitted discharge of hydrocarbons or oil field waste to account for the contamination on the site of the Fenner Gas Plant. The burden assumed by Fenner is not merely to prove that contamination exists, but that Magnum violated Statewide Rule 8(d) through unpermitted discharges, which caused the violation of Statewide Rule 8(b) by the pollution of groundwater. However, Fenner did not provide District Office inspection reports or other evidence of any act committed by Magnum that violated Statewide Rule 8. Fenner failed to demonstrate that Magnum violated Statewide Rule 8 on the Fenner Gas Plant site.

In the normal course of events, the Site Remediation Section of the Commission would work with the operator to resolve contamination issues. The Commission has the authority to prevent pollution of surface and subsurface water caused by "activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants or repressurizing plants.", under TNRC §91.101(1)(C). (emphasis added). TNRC §91.113(a) contemplates the expenditure of Oil Field Cleanup Funds ".....to conduct a site investigation or environmental assessment or control or clean up the oil and gas wastes or other substances or materials.....". TNRC §91.113(f) states:

> If the commission conducts a site investigation or environmental assessment or controls or cleans up oil and gas wastes or other substances or materials under this section, the commission may recover all costs incurred by the commission from any person who was required by law, rules adopted by the commission, or a valid order of the commission to control or clean up the oil and gas wastes or other substances or materials.

In this case, the normal course of events did not occur. Fenner resorted to self-help in an ultimately futile attempt to prove his claims in district court. The record indicates that Fenner complicated any future sampling and remediation efforts by conducting his own soil and groundwater sampling program on the site. Fenner's efforts involved digging long trenches up to 12 feet deep that breached the natural protective clay pan which is found at a depth of 18 inches to 3 feet in this area. The trenches through the clay pan were left open for years, providing a conduit for contaminants to soil and groundwater below. Fenner had several monitoring wells installed, which may have also contributed to contamination.

Site Remediation is still in the process of evaluating the contamination of the gas plant site. Site remediation believes that, despite the testing conducted so far, there is not enough data available to determine the overall extent and degree of contamination on the Fenner Gas Plant site. Without a complete assessment of the extent and degree of site contamination, Site Remediation is currently

unable to suggest appropriate remediation. The examiners' finding that Fenner has failed to carry his burden of proof in this docket in no way relieves Magnum of its obligation to the Commission to cooperate with Site Remediation in site assessment and remediation.

Examiners' Recommendation

Because Fenner failed to prove that Anadarko Petroleum Corporation is the successor in liability to Amax Petroleum Corp. or that Magnum Producing, LP committed any act violating Statewide Rules 8(d), 8(b) or 91, the examiners recommend that the complaint of Dr. C.E. Fenner be dismissed.

FINDINGS OF FACT

1. At least ten (10) days notice of the hearing in this docket was sent to all parties entitled to notice. Dr. C.E. Fenner, Anadarko Petroleum Corporation, Magnum Producing, LP and the Site Remediation Section of the Railroad Commission of Texas appeared and presented evidence.

2. On May 29, 1974, Dr. C.E. Fenner entered into a surface use agreement with Millican Oil Company under which a gas processing plant was constructed on 4.978 acres of Fenner's land (the Fenner Gas Plant Site).

3. Ownership of the Fenner Gas Plant passed through a number of operators:

   a. Millican Oil Company operated the Fenner Gas Plant from 1974 through 1977 or 1978.
   b. In 1977 or 1978, Millican transferred its interest in the Fenner Gas Plant to Alamo Petroleum Company. Alamo Petroleum Company became Amax Petroleum Corporation in 1980 or 1981, and then transferred its interest in the Fenner Gas Plant to Tenax Oil and Gas Corporation on September 1, 1982.
   c. Tenax Oil and Gas Corporation transferred its interest in the Fenner Gas Plant to Samson Resources on November 1, 1982.
   d. Samson Resources transferred its interest in the Fenner Gas Plant to American Trading and Production Company (ATAPCO) in 1987.
   e. ATAPCO assigned its interest in the Fenner Gas Plant to Magnum Producing, LP on October 1, 1991. Magnum closed the gas plant site between 1994 and 1997.

4. In October, 1974, Millican filed an application with the Railroad Commission for a saltwater disposal well on the Fenner Gas Plant Site. The permit was granted and an emergency saltwater overflow pit was constructed adjacent to the disposal well.

5. By letter dated July 9, 1982, the Commission informed Amax Petroleum Company that the

emergency saltwater overflow pit on the Fenner Gas Plant Site was in violation of Statewide Rule 8 and must be dewatered and backfilled. By letter dated August 13, 1982, the Commission acknowledged that the pit had been dewatered and backfilled.

6. At the time the Fenner Gas Plant was closed, between 1994 and 1997, the main gas processing facilities were located in a 1.7 acre fenced enclosure on the eastern third of the site. The backfilled saltwater overflow pit was near the middle of the site to the south, and a buried debris field existed on the western edge of the site.

7. Newpark Environmental Services conducted an environmental assessment on the Fenner Gas Plant site in 1997. Soil samples were taken from trenches dug three to twelve feet deep at the site of the gas processing facilities, the debris field, and the former saltwater overflow pit. Using Texas Risk Reduction Program standards, Newpark found high levels of TPH (Total Petroleum Hydrocarbons), chlorides, and metals such as chromium, mercury and lead. In the debris field, Newpark found buried pipe, 55 gallon drums and cable. The trenches were left open several years.

8. The soil type in the area of the Fenner Gas Processing Plant is a Straber soil, with a clay pan found 18 inches to 3 feet below the surface. The clay pan acts as an impermeable barrier to the migration of fluid from the surface to the soil below.

9. Disruption of the clay pan layer in the soil of the Fenner Gas Plant site by Fenner's attempts at environmental assessment allowed contaminants to seep into soil and groundwater below the clay pan.

10. Wayne J. Crouch Environmental Services conducted site investigations for Fenner and issued an October 15, 2003 report, a September 4, 2006 report and a November 13, 2006 report.

    a. The Crouch reports cited exceedances of TRRP Tier 1 levels for xylene, benzene, ethyl benzene, toluene, arsenic, cadmium and lead.
    b. The Crouch reports cited buried drums, metals, hydrocarbon saturated soils, lumber, signs, cans and plastic in the debris field. A plastic vapor barrier was found in part of the debris field.
    c. The Crouch reports cited hydrocarbon saturated soil in excavations of the saltwater overflow pit, as well as high levels of benzene, ethyl benzene, toluene, xylene, arsenic, cadmium and lead.
    d. The Crouch reports cited high levels of benzene taken from water samples in monitoring wells 2 and 3.

11. Fenner and Magnum conducted joint sampling of soil and groundwater on November 14-15, 2007 at the Fenner Gas Plant site. The samples were split and tested by both parties. The results are summarized in a report dated January 8, 2008 prepared by Dr. Bruce Darling. The

report shows continuing exceedances of Texas Commission on Environmental Quality TRRP (Texas Risk Reduction Program) PCLs (Protective Concentration Levels), although the exceedances were lower than in previous reports filed by both Fenner and Magnum, indicating natural attenuation had occurred.

12. The existence of a plastic vapor barrier over a portion of the debris pit does not establish intentional concealment. There was no evidence demonstrating who installed the vapor barrier or when it was installed. The existence of the barrier is not evidence of wrongful conduct.

13. Fraudulent concealment is a type of fraud in a contract dispute that may be asserted in District Court and may give rise to certain remedies, but must be asserted by a party to, or beneficiary of, the contract. Fenner was not a party to the contractual assignment of the Gas Plant from Amax to Tenax. The Commission has no authority to interpret contracts or impose contract remedies.

14. By document titled "Transfer, Assignment and Conveyance", dated September 1, 1982, Amax Petroleum Corporation assigned its interest and liabilities in the Fenner Gas Processing Plant to Tenax Oil and Gas Corporation.

15. Magnum became the operator of the Fenner Gas Processing Plant by transfer from ATAPCO (American Trading and Production Company) effective October 1, 1991. Magnum allowed ATAPCO to continue to operate the processing plant as it was the owner of the majority of the wells serviced by the plant. In 1993, Magnum became the owner of the majority of the wells serviced by the plant and assumed operation of the Fenner Gas Processing Plant.

16. Fenner did not produce any Commission District Office inspection report or any other evidence demonstrating an unpermitted discharge of oil and gas waste by Magnum. There was no evidence Magnum ever deposited oil and gas waste in the debris pit or elsewhere on the Fenner Gas Plant Site.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely given to all persons legally entitled to notice.

2. All things have occurred and been accomplished to give the Commission jurisdiction to decide this matter.

3. Fenner did not show that Anadarko Petroleum Corporation acquired liability for operations conducted by Amax Petroleum Corporation on the Fenner Gas Processing Plant site or was otherwise liable for any violations of Statewide Rules 8(b), 8(d) or 91 on the Fenner Gas Plant Site.

4. Fenner did not show that Magnum Producing, L.P. violated Statewide Rule 8 by the unpermitted discharge of oil and gas waste on the Fenner Gas Processing Plant Site or was otherwise liable for any violations of Statewide Rules 8(b), 8(d) or 91 on the Fenner Gas Plant Site.

RECOMMENDATION

The examiners recommend that the complaint of Dr. C.E. Fenner in this docket be dismissed.

Respectfully submitted,

Marshall Enquist
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