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Protectable Property Rights, Trade Secrets, and Geophysical Data After City of Northglenn v. Grynberg

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PROTECTABLE PROPERTY RIGHTS, TRADE SECRETS, AND GEOPHYSICAL DATA AFTER *City of Northglenn v. Grynberg*

INTRODUCTION

> [T]he right to exclude [others], so universally held to be a fundamental element of the property right, falls within this category of interests that the Government cannot take without compensation.[1]

This assertion recognized a common thread in American property and mining law.[2] The historical drive to develop natural resources required secure and definitive property rights. Consequently, mining law recognized that the holder of mineral rights possesses an exclusive power of exploration and development known as the "exploration right."[3]

Beginning in 1978, oil and gas development in Colorado expanded at an unprecedented rate.[4] During the same period, Colorado's population exploded.[5] Cities along Colorado's front range urban corridor struggled to satisfy the needs of more and more people.

This concurrent expansion of mineral development and population led to conflict among competing land use interests.[6] Such conflicts raised questions about the traditional primacy of mineral owners' power to exploit their mineral rights.[7] Although mineral owners' exploration and recovery rights may conflict with land use considerations, this Comment concentrates on the protection Colorado law affords mineral rights from improper governmental interference.

As government environmental and land use regulation expands, private land use regulation also increases.[8] Such government control invites

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1. Kaiser Aetna v. United States, 444 U.S. 164, 179-80 (1979).

2. *E.g.*, United States v. Pueblo of San Ildefonso 513 F.2d 1383, 1394 (Ct. Cl. 1975); Phillips Petroleum Co. v. Cowden, 241 F.2d 586, 590 (5th Cir. 1957); Angelloz v. Humble Oil & Ref. Co., 199 So. 656, 658 (La. 1940).

3. *See generally* RICHARD W. HEMINGWAY, THE LAW OF OIL AND GAS § 4.1 (2d ed. 1983). This Comment treats mining law and oil and gas law as synonymous. Differences between the two fields of law are indicated where relevant.

4. For the twenty-year period from 1960 to 1980, 12,479 oil and gas wells were "completed" (ready for production) in Colorado. Since 1980, the number of "completed" wells has totaled 16,841, an increase of 35% over the 1960-1980 period. The author derived these figures by searching Dwight's Well Data Database, Dwight's Energydata Inc., on November 2, 1993, for the number of Colorado wells by completion date.

5. From 1980 to 1990, Colorado's population increased by 14%. 29 COUNCIL OF STATE GOVERNMENTS, BOOK OF THE STATES 661 (1992).

6. For a discussion of the broad conflicts between competing land uses, see Robin Chotzinoff, *Surface Tensions*, WESTWORD (Denver), May 26, 1993, at 22 (discussing current conflicts between farmers and oil producers).

7. *Id.* The primary contention described in the Chotzinoff article involved the mineral owner's recovery right as it conflicts with private landowners.

8. Examples of statutory requirements obligating governmental intrusion into private affairs include: COLO. REV. STAT. § 34-1-304 (1984) (requiring populous counties to devise a mineral recovery plan); COLO. REV. STAT. § 37-90.5-106 (1990) (granting state engineer

"takings" claims under state or federal constitutions.[9] As a subset of general takings law, the analysis for land use regulations gradually develops and defines the limits of governmental intrusion.[10]

This Comment focuses on the extent to which Colorado mineral law protects confidential geophysical information from governmental intrusion and divulsion. The Colorado Supreme Court addressed the property right status of geophysical information in *City of Northglenn v. Grynberg*,[11] where the common law primacy of the mineral owner's property rights were placed in a Takings Clause context. Part I of this Comment illustrates the background of mining law and contemporary takings analysis. Part II sets forth the factual background of *Grynberg II* and explains the disposition of the case, including issues the Colorado Supreme Court left unanswered. Part III analyzes the potential impact of *Grynberg II* on Colorado mining law. Finally, Part IV concludes that Colorado courts should recognize confidential geophysical information as proprietary information protected by the Takings Clause of the Colorado Constitution.

I. BACKGROUND

A. *Traditional Status of the Mineral Estate*

Until severance of surface and mineral estates, ownership of the surface includes ownership of the underlying minerals.[12] When the surface owner severs the mineral estate, the mineral interest becomes that quantum of real property and appurtenant rights necessary for the economical extraction of the minerals.[13] After severance, different parties may own the surface and mineral estates, leading to frequent conflicts over the use and development of the land.[14]

The mineral estate rights include, *inter alia*, the exclusive right to explore the geophysical makeup of the subject property—the "exploration right."[15] Information about a parcel's geophysical makeup, such as

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power to devise permit requirements for geothermal wells that might affect mineral reserves). *See also* COLO. REV. STAT. § 37-91-101 (1990) (policy granting broad authority in determining permit requirements for underground wells when health or environmental concerns exist). *See generally* Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 666 (1986) (discussing expansion of police power authority).

9. The respective clauses read: "nor shall private property be taken for public use, without just compensation." U.S. CONST. amend. V; "Private property shall not be taken or damaged, for public or private use, without just compensation." COLO. CONST. art. II, § 15.

10. *See, e.g.*, Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992) (shoreline protection under the South Carolina Beachfront Management Act); Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470 (1987) (statute limiting coal recovery); Agins v. City of Tiburon, 447 U.S. 255 (1980) (zoning ordinances in the interest of "open-space" areas). *See also* Lazarus, *supra* note 8, at 666.

11. 846 P.2d 175 (Colo. 1993) [hereinafter *Grynberg II*].

12. Radke v. Union Pacific R.R. Co., 334 P.2d 1077, 1088 (Colo. 1959).

13. "[O]wner of a mineral estate has such rights of ingress, egress, exploration, and surface usage as are reasonably necessary to the successful exploitation of his interest." Rocky Mountain Fuel Co. v. Heflin, 366 P.2d 577, 580 (Colo. 1961).

14. *See generally* Chotzinoff, *supra* note 6.

15. *See generally* Phillips Petroleum Co. v. Cowden, 241 F.2d 586, 590-92 (5th Cir. 1957); HEMINGWAY, *supra*, note 3, § 4.1; 1 EUGENE KUNTZ, LAW OF OIL AND GAS § 12.7 (1987) (noting

whether the tract contains oil, gas, or coal, and in what quantities, may be as valuable as the resources themselves. The mineral estate owner obviously has a strong interest in limiting exploratory access.

The doctrine of geophysical trespass provides redress for *private* party violations of the exclusive exploration right.[16] Geophysical trespass requires a wrongful appropriation of the exploration right to the detriment of the mineral estate owner.[17] There is some confusion over the appropriate remedies[18], but a number of jurisdictions accept the general doctrine of geophysical trespass.[19]

In contrast, governmental entities are not subject to liability for geophysical trespass.[20] The weight of authority holds that transitory governmental intrusion upon private property for the purposes of surveying and testing is within the eminent domain power.[21] When done in good faith, governmental intrusions to conduct studies preliminary to condemnation are described as a necessary incident of the right to condemn.[22]

Without the protection of geophysical trespass, what recourse does the mineral owner have when the government imposes on the mineral

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that, as between an oil and gas lessor and lessee, the exploration right is not necessarily exclusive). As seen in *Grynberg v. City of Northglenn*, 739 P.2d 230 (Colo. 1987) [hereinafter *Grynberg I*], the exclusive right to the geophysical information about one's estate should be thought of as a necessary element of the right of exploration. For purposes of this Comment, "exploration" implies the concomitant right to protect confidential information discovered. *Grynberg I*, 739 P.2d at 235.

16. *See Phillips*, 241 F.2d at 592; *Grynberg I*, 739 P.2d at 231; Angelloz v. Humble Oil & Ref. Co., 199 So. 656 (La. 1940). *See also* HEMINGWAY, *supra* note 3, §§ 4.1, 4.2. *Cf.* Robert J. Rice, *Wrongful Geophysical Exploration*, 44 MONT. L. REV. 53, 59 (1983).

17. *See* Rice, *supra* note 16, at 53.

18. *See* Mark D. Christiansen, Note, *Oil and Gas: Improper Geophysical Exploration - Filling in the Remedial Gap*, 32 OKLA. L. REV. 903, 904 (1979).

19. *E.g.*, Phillips Petroleum Co. v. Cowden, 241 F.2d 586 (5th Cir. 1957); Picou v. Fohs Oil Co., 64 So.2d 434 (La. 1953); Franklin v. Arkansas Fuel Oil Co., 51 So.2d 600 (La. 1951). *See generally* Christiansen, *supra* note 18 (discussing historical evolution of geophysical trespass doctrine and appropriate remedies); Rice, *supra* note 16 (discussing wrongful geophysical exploration theories of recovery and damages).

20. The impetus for defining geophysical trespass as a tort is in protecting the mineral estate owner's competitive position vis-a-vis others in the same business. A geophysical trespass action will commonly require as an element that the information was appropriated for a wrongful purpose. As governmental entities are not in the mining business, they presumably cannot have that wrongful intent. *See generally* HEMINGWAY, *supra* note 16, § 4.2 at 169.

21. Montana Co. v. St. Louis Mining & Milling Co., 152 U.S. 160 (1894) (state statute allowing access to inspect mines); McClain v. People, 11 P. 85 (Colo. 1886) (statute authorizing pre-condemnation possession of property); Duke Power Co. v. Herndon, 217 S.E.2d 82 (N.C. Ct. App. 1975) (authority for preliminary survey for rights-of-way); 2 NICHOLS' THE LAW ON EMINENT DOMAIN § 6.02 (Julius L. Sackman & Patrick J. Rohan eds., 3d ed. 1993). *But cf.* KAN. STAT. ANN. § 26-201 (1986) (intrusion prior to exercise of eminent domain power is allowed when deemed necessary); Jacobsen v. Superior Court, 219 P. 986, 990-91 (Cal. 1923) (survey right contemplates the pendency of eminent domain proceedings); Iowa State Highway Comm'n v. Hipp, 147 N.W.2d 195 (Iowa 1966) (finding no legislative grant of power to survey potential site of highway condemnation).

In Colorado the power to make surveys preliminary to condemnation is codified as to certain public works corporations. COLO. REV. STAT. § 38-2-102 (1982).

22. Lewis v. Texas Power & Light Co., 276 S.W.2d 950, 954 (Tex. Civ. App. 1955) (quoting 29 C.J.S. *Eminent Domain* § 226(a) (1951)). *See also* Onorato Bros. v. Massachusetts Turnpike Auth., 142 N.E.2d 389 (Mass. 1957) (denying recovery for remote and consequential injury resulting from survey stakes placed in good faith). *See also* 2 NICHOLS, *supra* note 21, § 6.02.

owner's exclusive exploration right? Stated conversely, when governmental intrusion exceeds a harmless trespass, should the government incur liability under a Takings Clause analysis? In *Grynberg II* the Colorado Supreme Court determined how much protection the Takings Clause of the Colorado Constitution affords a mineral owner burdened with governmental exploratory intrusion into his mineral estate.

B. *Development of Modern Takings Law*

The United States Supreme Court has affirmed the use of the Takings Clause against governmental authorities in a variety of contexts.[23] Though criticized as ad hoc and unpredictable,[24] the Court's analysis has gradually increased the list of property rights protected by the Takings Clause, while simultaneously expanding the dominion of the government's "police power."[25]

Facing an expanded list of protected property rights and ever-increasing governmental regulation of private property, the Court's takings approach seeks to accommodate the regulatory function of government with recognized property rights. Two frequently cited quotations from Justice Holmes in *Pennsylvania Coal Co. v. Mahon*[26] reflect the boundaries within which the modern takings analysis operates. On one hand, the Court stated that "[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law."[27] The Court also stated, however, that "if regulation goes too far, it will be recognized as a taking."[28]

Lucas v. South Carolina Coastal Council[29] established a framework for modern regulatory takings analysis.[30] Justice Scalia's opinion described

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23. Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982) (city must pay for intrusion in the form of cable reception boxes in private buildings); United States v. Causby, 328 U.S. 256 (1946) (government liable for excessively noisy flights over landowner's property). *But see* PruneYard Shopping Ctr. v. Robins, 447 U.S. 74 (1980) (no liability for requiring political demonstrators to have access to shopping center); Penn Central Transp. Co. v. New York City, 438 U.S. 104 (1978) (no liability for limiting building heights as part of a historic preservation scheme).

24. *See generally* Leslie Bender, *The Takings Clause: Principles or Politics*, 34 BUFF. L. REV. 735, 782 (1985) (describing the post-1978 takings approach as beginning a bizarre and ad hoc "takings renaissance"); Richard G. Wilkins, *The Takings Clause: A Modern Plot for an Old Constitutional Tale*, 64 NOTRE DAME L. REV. 1, 44 (1989) (describing the modern takings approach as a "crazy-quilt takings jurisprudence" in need of more predictability).

25. *See generally* Lazarus, *supra* note 8, at 676 (discussing how the public trust doctrine has altered the takings analysis by increasing police power in an environmental context).

26. 260 U.S. 393 (1922).

27. *Id.* at 413.

28. *Id.* at 415.

29. 112 S. Ct. 2886 (1992).

30. *See generally* Richard C. Ausness, *Wild Dunes and Serbonian Bogs: The Impact of the Lucas Decision on Shoreline Protection Programs*, 70 DENV. U. L. REV. 437 (1993) (stating that *Lucas* requires states to provide additional protective provisions for wetland owners); Thomas P. Glass, *Property Law: Takings and the Nuisance Exception in the Aftermath of Lucas v. South Carolina Coastal Council*, 18 U. DAYTON L. REV. 509 (1993) (discussing the nuisance exception and balancing-of-factors tests as tools to determine if a regulation taking has gone too far); Jan G. Laitos, *The Public Use Paradox and the Takings Clause*, 13 J. ENERGY NAT. RESOURCES & ENVTL. L. 9 (1993) (discussing *Lucas*' restrictive view of the Takings Clause as advancing a public pur-

two discrete regulatory takings categories.[31] The first category arises when the government has effected an actual invasion of private property in the asserted public interest.[32] The second category involves governmental regulatory actions that deprive owners of all economically viable use of their property.[33]

Cases within the second category stress the value and importance of the right to exclude the public from private property.[34] Most of these cases involved a compelled right of public access to private property without use of the eminent domain power.[35] In *Ruckleshaus v. Monsanto*,[36] the Court extended the ability to exclude the public from private property into the realm of intangible property rights. *Monsanto* dealt with forced disclosure of a chemical manufacturer's confidential information in the context of either a patent registration scheme[37] or in compliance with health and environmental guidelines.[38] In either context, the asserted invasion caused by the forced disclosure affected Monsanto's competitive position in the chemical industry.[39]

The Court's analysis established that the Takings Clause protects trade secrets or proprietary information to the extent the information qualifies as a trade secret[40] under the appropriate state law.[41] In holding

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pose rather than the taking of private property); James B. Wadley and Pamela Falk, *Lucas and Environmental Land Use Controls in Rural Areas: Whose Land is it Anyway?*, 19 WM. MITCHELL L. REV. 331 (1993) (discussing the harmful effects of *Lucas* on farm and ranch landowners); Robert M. Washburn, *Land Use Control, the Individual, and Society: Lucas v. South Carolina Coastal Council*, 52 MD. L. REV. 162 (1993) (discussing the rights of individuals to exercise control over their land free from unlawful governmental intrusion).

31. *Lucas*, 112 S. Ct. at 2893.

32. *Id.* "[N]o matter how minute the intrusion, and no matter how weighty the public purpose behind it," compensation is required in the context of permanent invasions. *Id.* Justice Scalia further described how that principle required compensation in Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982). *Lucas*, 112 S. Ct. at 2893.

33. Lucas, 112 S. Ct. at 2893. *See, e.g.*, Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470 (1987) (statute limiting amount of coal a producer could recover); Agins v. City of Tiburon, 447 U.S. 255 (1980) (zoning ordinance restricting development). Analysis of the first category of takings in *Lucas* is beyond the scope of this Comment.

34. As quoted in the introduction, the right to exclude others is "universally held to be a fundamental element of the property right . . . and [is] within this category of interests that the government cannot take without compensation." Kaiser Aetna v. United States, 444 U.S. 164, 179-80 (1979). *See also* Nollan v. California Coastal Comm'n, 483 U.S. 825, 831 (1987) (citing bundle of rights set forth in *Kaiser*); Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 433 (1982) (citing bundle of rights set forth in *Kaiser*); Griggs v. Allegheny County, 369 U.S. 84 (1962) (entitling owner to compensation where county airport made home unbearable to live in); United States v. General Motors, 323 U.S. 373, 377-78 (1945) (noting the existence of a group of rights that an individual has with a physical thing whereby he can use or dispose of it).

35. *See, e.g.*, Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987) (government may not force a beachfront landowner to grant a public easement across his beach which does not serve a public purpose); *Kaiser*, 444 U.S. at 164 (government may not force a private marina to open up its artificially created waterway to the general public without invoking eminent domain power).

36. 467 U.S. 986 (1984).

37. *Id.* at 993.

38. *Id.*

39. *Id.* at 999.

40. While in practice the terms "proprietary information" and "trade secret" are not necessarily synonymous, for purposes of this Comment they are used interchangeably.

that state law controls the definition of a trade secret, the Court added an important and widely held caveat: assertedly proprietary information must be exclusively held by the claimant to qualify for trade secret protection.[42]

With the definition of protectable trade secrets in mind, the Court analyzed the pertinent regulations to determine whether the disclosure requirements (1) could be justified as part of a regulatory scheme where the asserted invasion of the property right is tied to, and an essential part of, a scheme which also confers benefits upon the claimant,[43] and (2) do so in a manner that does not deprive the property owner of the benefits of his or her reasonable, investment-backed expectations.[44] Justice Scalia emphasized the importance of analyzing the investment-backed expectations as key to Monsanto's disposition.[45]

Monsanto established proprietary information as one of the intangible property rights protected from improper regulatory takings.[46] Transferring the *Monsanto* analysis into the context of a mineral owner's exclusive right to geophysical information frames the issue in *Grynberg II.*

II. INSTANT CASE

A. *Facts*

In 1977 the City of Northglenn investigated sites for a wastewater treatment reservoir, including certain parcels of land in rural Weld County.[47] With the surface estate owner's permission,[48] Northglenn tested the property to determine its suitability for a reservoir and drilled a 600-feet-deep test hole to check for recoverable coal deposits as required

41. *Monsanto,* 467 U.S. at 1003-04. The *Monsanto* holding is described as bolstering the rights of trade secret holders against private sector appropriators. *See* Carpenter v. United States, 484 U.S. 19, 26 (1987) (citing *Monsanto* in upholding sanctions against private appropriators of trade secrets); MELVIN F. JAGER, 1 TRADE SECRETS LAW, § 3.03, at 3-29 (1993).

42. *Monsanto,* 467 U.S. at 1001-2 (quoting the Restatement of Torts, § 757, cmt. b (1939)).

43. *Id.* at 1007. For examples of government restrictions held not a taking as part of a scheme which also conferred benefits upon complainant, see Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470 (1987) (state statute protecting surface property from subsidence damage burdens as well as benefits each person); Agins v. City of Tiburon, 447 U.S. 255 (1980) (zoning ordinance benefitted the restricted landowner in that it produced orderly development); Day-Brite Lighting Inc. v. Missouri, 342 U.S. 421 (1952) (employer as well as the general public will be benefitted by law allowing any employee to leave work with pay in order to vote).

44. *Monsanto,* 467 U.S. at 1005-06. As Grynberg's claim is unrelated to a regulatory scheme as in *Monsanto,* only the second part of the Court's analysis (investment-backed expectations) is germane to the instant case.

45. *Id.* at 1005. For examples of less-than-reasonable expectations in the takings analysis, see PruneYard Shopping Ctr. v. Robins, 447 U.S. 74 (1980); Penn Central Transp. Co. v. New York City, 438 U.S. 104 (1978).

46. *Monsanto,* 467 U.S. at 1003-04.

47. Grynberg v. City of Northglenn, 739 P.2d 230, 232 (Colo. 1987). Grynberg's case went before the Colorado Supreme Court for the first time in 1987, predominately on a claim of geophysical trespass. *Id.* at 233. On remand, Grynberg dropped his geophysical trespass claim and proceeded with an inverse condemnation claim. City of Northglenn v. Grynberg, 846 P.2d 175, 177 (Colo. 1993).

48. The property in question was divided into separate mineral and surface estates by prior conveyances. *Grynberg I,* 739 P.2d at 232.

by state law.[49] Northglenn's soils engineering consultant compiled a test report,[50] the conclusions of which were largely in accord with earlier studies concluding that the coal reserves underlying the proposed reservoir site were not commercially recoverable.[51] The consultant filed the report with the state engineer's office, where the conclusions became public information.[52]

Although the surface owner consented, Northglenn never obtained consent to drill from the mineral owner (the state of Colorado) nor the mineral lessee - Jack Grynberg.[53] The unauthorized drilling, as well as the publication of the geophysical information derived from the drilling, formed the basis of Grynberg's action against Northglenn.[54] In *Grynberg II*, on an inverse condemnation claim, Grynberg asserted that the unauthorized exploration of his mineral leasehold and release of confidential geophysical information about its recovery potential diminished his ability to sell the lease, thereby effecting a taking of his property interest in the mineral estate.[55]

Grynberg asserted four claims arising out of Northglenn's exploration activities: (1) the city's acquisition of the surface estate effected a taking of his underlying mineral estate;[56] (2) the drilling of a test hole without Grynberg's consent amounted to a taking;[57] (3) the unauthorized publication of the test results constituted a taking;[58] and (4) that his property had been "damaged" under the damages provision of Colorado's Takings Clause.[59]

B. *Majority Opinion*

1. Taking by acquisition of the surface estate

The court first addressed Grynberg's claim that Northglenn's acquisition of the surface estate effected a taking of his mineral estate. Grynberg based his contention on the holding in *Russell Coal Co. v. Board of County Commissioners*.[60] In *Russell*, the mineral estate owner prevailed in an inverse condemnation proceeding by claiming the condemnation of the sur-

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49. *Id.* The analysis of coal deposits was pursuant to COLO. REV. STAT. §§ 34-1-301 to 34-1-305 (1984).

50. *Grynberg I*, 739 P.2d at 233.

51. Although inaccuracies existed in the report, it was generally in accord with previous studies of the area undertaken by the United States Geological Survey and others. *Grynberg II*, 846 P.2d at 184.

52. *Grynberg I*, 739 P.2d at 233.

53. *Id.* at 232.

54. *Id.*

55. *Grynberg II*, 846 P.2d at 177. Grynberg succeeded at trial on an inverse condemnation claim, receiving an award that was subsequently upheld in Grynberg v. City of Northglenn, 829 P.2d 473 (Colo. Ct. App. 1991). The Colorado Supreme Court reviewed that decision and award in *Grynberg II*.

56. *Id.* at 180.

57. *Id.* at 181-82.

58. *Id.* at 184.

59. *Id.* at 180.

60. 270 P.2d 772 (Colo. 1954).

face estate overlying his minerals amounted to a taking.[61] The court discussed the mineral estate's duty of subjacent support[62] and decided that the duty would prevent Russell from mining coal beneath the newly condemned land overlying his mineral estate.[63] Prior to that condemnation, Russell owned both the mineral and surface estates and was under no obligation to provide support.[64] When the county condemned the surface, it automatically imposed a servitude on Russell's mineral estate to provide support.[65] As that new servitude precluded the economical recovery of coal, the court agreed with Russell's assertion that the condemnation was a taking of his mineral estate.[66]

The *Grynberg II* court distinguished *Russell* by pointing out that Grynberg's mineral estate was severed from the surface years before Northglenn's intrusion.[67] Unlike Russell, Grynberg thus owed to the surface estate a duty of support from the moment he acquired his mineral lease.[68] Accordingly, Northglenn's acquisition of the surface estate did nothing more than change the identity of the party to which Grynberg owed support.[69] Without a newly created imposition on Grynberg's estate and, absent a showing that he was otherwise unable to extract the minerals from his property, the court denied Grynberg's first claim.[70]

2. Taking by drilling a test hole

Citing the importance of the exploration right, Grynberg claimed that Northglenn's exploratory drilling without his consent amounted to a taking of his mineral estate.[71] Although the court agreed that the drilling activity was a physical invasion of Grynberg's property, it found the activity to be less than a taking.[72] For a governmental invasion to reach the level of a taking, the government must effectively exercise control or dominion over the property.[73]

Noting the transitory nature of Northglenn's invasion, the court cited *Puryear v. Red River Authority of Texas*.[74] *Puryear* discussed the government's ability to survey and test lands to be condemned as a necessary incident of

61. *Id.* at 773.
62. *Id.* at 774. "Subjacent support" refers to that support from subsidence given to the surface from beneath the surface. *See* RONALD W. TANK, LEGAL ASPECTS OF GEOLOGY 31 (1983).
63. *Russell*, 270 P.2d at 774.
64. *See id.* at 774.
65. *Id.*
66. *Id.* at 775.
67. *Grynberg II*, 846 P.2d at 180-81.
68. *Id.*
69. *Id.*
70. *Id.*
71. *Id.* at 182.
72. "The drilling itself did not interfere with Grynberg's use, possession, enjoyment, or disposition of his coal lease." *Id.*
73. *Id.* (quoting Lipson v. Colorado State Dep't of Highways, 588 P.2d 390, 391-92 (Colo. Ct. App. 1978)).
74. *Id.* (citing Puryear v. Red River Auth. of Texas, 383 S.W.2d 818 (Tex. Ct. App. 1964)).

the eminent domain power.[75] As a transitory, one-time invasion of Grynberg's mineral estate within its eminent domain power, Northglenn's drilling was neither an exercise of dominion nor a taking of Grynberg's property.[76]

3. Taking by publishing geophysical information

Grynberg's third claim was that Northglenn's acquisition of his mineral information and subsequent publication of the test results constituted a taking of his mineral estate.[77] The court first explained that neither the mere announcement of impending condemnation proceedings nor the initial publication of information relating to the condemnation amounted to a taking, even though such announcements may damage the value of private property.[78]

The court then looked to the *Monsanto* decision for guidance on the takings approach applicable to intangible property such as proprietary information.[79] As clearly stated in *Monsanto*, to classify proprietary information as protectable, the asserted trade secret must be neither public knowledge nor generally known within the pertinent industry.[80] With that rule in mind, the court found the information obtained and published by Northglenn no different in its nature, nor its conclusions, from information readily available to parties interested in the economic viability of Grynberg's coal holdings.[81] Previous studies concerning the viability of coal recovery in the area of Grynberg's lease[82] were publicly accessible and in general agreement with Northglenn's report. Northglenn's disclosure therefore could not be considered the taking of a trade secret.[83]

Grynberg's failure as to the exclusivity requirement allowed the court to leave two questions from the *Monsanto* analysis for another day. First, does mineral information qualify for trade secret protection under Colorado law? If so, does a mineral estate owner have reasonable investment-backed expectations that the information will remain confidential?[84]

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75. In a similar factual situation involving core drilling into a mineral owner's property, the transitory trespass was found to be part of the eminent domain power. *Puryear*, 383 S.W.2d at 821. For further discussion of the pre-condemnation right to survey, see *supra* notes 21-22 and accompanying text. *See also* State *ex rel.* Waste Management Bd. v. Bruesehoff, 343 N.W.2d 292, 295 (Minn. Ct. App. 1984).

76. *Grynberg II*, 846 P.2d at 182 (Colo. 1993) (citing *Puryear*).

77. *Id.* at 184.

78. *Id.* (quoting Lipson v. Colorado State Dep't of Highways, 588 P.2d 390 (Colo. Ct. App. 1978)).

79. *See supra* notes 36-46 and accompanying text.

80. *Grynberg II*, 846 P.2d at 183 (quoting *Monsanto*, 476 U.S. at 1002).

81. *Id.* at 184.

82. *Id.* at 182-83.

83. *Id.* at 184.

84. "As stated above, we do not decide here whether or not the information as represented by the undiscovered data from an unexplored mineral lease is a 'trade secret' or other property which is protected by the federal or state constitutions." *Id.* at 184 n.18.

4. Inapplicability of the constitutional damages claim

In addition to his takings claims, Grynberg asserted that Northglenn's actions unconstitutionally "damaged" his property.[85] The court pointed out that a damage claim required either a partial taking of one's land[86] or the taking of abutting land.[87] Since the court found no merit to Grynberg's first three takings claims, there was no partial taking, and thus no unconstitutional damage to the remainder of his property.[88] Grynberg also failed to prove that access to, or enjoyment of, his property was limited by Northglenn's actions affecting the abutting estate.[89] Because Grynberg only demonstrated a diminution in property value, the court ruled that Colorado's law of constitutional damaging did not apply to Grynberg's claims.[90]

III. ANALYSIS

As urban sprawl encroaches upon rural, mineral-producing areas, conflicts involving the government's exploratory intrusion into mineral rights will arise. A balance must be struck between the traditional primacy of the mineral estate's exploration right[91] and the government's need to carry out their duties without excessive risk of takings liability.[92] To a point, *Grynberg II* balanced the exclusive exploration right with the government's regulatory needs, answering important questions for each side and

85. The Colorado Constitution includes a damages provision in addition to its Takings Clause. While pure takings claims under the state constitution give property owners at least the same protection as under the federal Constitution, Colorado's damages provision affords aggrieved property owners an additional element of protection that the federal Constitution does not provide. Mosher v. City of Boulder, 225 F. Supp. 32, 35 (D. Colo. 1964).

Interpretation of the Colorado damages provision as supplemental to the general takings clause follows two separate lines. One line of precedent requires compensation for injury to the remainder of an owner's property when the government takes only a portion of the parcel. La Plata Electric Ass'n Inc. v. Cummins, 728 P.2d 696 (Colo. 1986). A second line involves cases where no property is actually taken, but instead, government action limits or destroys a landowner's access to the property (e.g. public improvements abutting private land). *See* City of Pueblo v. Strait, 36 P. 789 (Colo. 1894). In either situation, the difficult requirement of any damage-based inverse condemnation action is a claimant's demonstration of unique damages or some specific injury not shared by the general public. La Plata Electric Ass'n Inc. v. Cummins, 728 P.2d 696, 698 (Colo. 1986).

86. *See, e.g.*, La Plata Electric Ass'n v. Cummins, 728 P.2d 696 (Colo. 1986) (holding that a landowner must be compensated for all damages that are the natural, necessary, and reasonable result of a partial taking); 4A NICHOLS' THE LAW ON EMINENT DOMAIN § 14.02(1), at 14 (Julius L. Sackman & Patrick J. Rohan eds., 3d ed. 1993). The court also noted that this is the majority rule among the states. City of Northglenn v. Grynberg, 846 P.2d 175, 179 n.4 (referring to *La Plata*, 728 P.2d at 700).

87. *Grynberg II*, 846 P.2d at 178-80.

88. *Id.* at 185.

89. *Id.*

90. *Id.* at 185.

91. For a discussion of the importance of protecting the exploration right of mineral owners, see Phillips Petroleum Co. v. Cowden, 241 F.2d 586 (5th Cir. 1957); Christiansen, *supra* note 18, at 903-04.

92. "Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law." Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 413 (1922). *See also* Carol M. Rose, *Mahon Reconstructed: Why the Takings Issue is Still a Muddle*, 57 S. CAL. L. REV. 561 (1984) (criticizing modern takings law as too unpredictable for governments to rely on).

setting parameters for the relationship between mineral owners and governmental entities.

A. *The Mineral Estate and Governmental Activities*

Grynberg II affirmed the exclusive right of the mineral estate owner to explore for and retain information traditionally understood and relied upon.[93] The court validated the tort of geophysical trespass against nongovernmental parties.[94] For governmental entities, the court described how far preliminary eminent domain activities could go without violating the Takings Clause. For studies and surveys preliminary to condemnation, there is no taking without an injurious exercise of dominion and control over private property, or the limitation of access to it.[95]

The court, however, left unanswered the property right status of Grynberg's geophysical information. Whether in the context of a regulatory scheme as in *Monsanto*, or an eminent domain setting as in *Grynberg II*, future takings claims regarding mineral information will depend on (1) Colorado's treatment of mineral information as trade secrets, and (2) the reasonableness of the mineral owner's investment-backed expectations.

B. *The Direction of Colorado Law Protecting Geophysical Information*

1. Application of *Ruckleshaus v. Monsanto*[96]

Monsanto provides a framework for the asserted taking of intangible property rights. First, it must be determined if the asserted property right is protectable under the jurisdiction's law and exclusively held by the claimant. If so, the next step measures the reasonableness of the claimant's expectations that the government will not divulge proprietary information.[97]

The *Grynberg II* court followed *Monsanto*'s first step in applying the trade secret/exclusivity test to Grynberg's information. This implies that, given the opportunity, the court would follow the balance of the test and determine the reasonableness of a mineral owner's investment-backed expectations. But in order to do this, Colorado law must first recognize confidential geophysical information as a trade secret.

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93. *Grynberg II*, 846 P.2d at 182.

94. *Id.* at 184. *See also Grynberg I*, 739 P.2d at 239 (Colo. 1987). The issue of geophysical trespass was dealt with in more detail in *Grynberg I*.

95. *Grynberg II*, 846 P.2d at 182. Implicit in the court's treatment of this issue is the reasoning given for the same conclusion in Puryear v. Red River Auth. of Texas, 383 S.W.2d 818 (Tex. Civ. App. 1964), where the intrusion of a survey crew was a necessary incident of the eminent domain power. *See also supra* notes 21-22 and accompanying text.

96. 467 U.S. 986 (1984).

97. *Monsanto*, 467 U.S. at 986. For more explanation of the *Monsanto* analysis, see *supra* notes 40-46 and accompanying text.

2. Colorado Trade Secret Law

In 1986 Colorado passed the Uniform Trade Secrets Act.[98] Cases interpreting the statute follow the weight of authority in applying a broad definition of what constitutes a trade secret[99] and the requirement that proprietary information be exclusively held by the claimant.[100] Adoption of the Act impliedly recognizes that trade secrets are a valuable part of Colorado's economy and society.[101] On a similar premise, Colorado protects geophysical information from private appropriation through the tort of geophysical trespass.[102] Such protection for geophysical information impliedly recognizes an analytical framework borrowed from trade secret law: under the right circumstances intangible information is a property right deserving of protection.[103]

As part of federal trade secret law, *Monsanto* protects intangible property rights and bolsters recovery rights against wrongful private appropriators of trade secrets.[104] Beginning with an understanding that trade secret law protects intangible property rights from private appropriation, *Monsanto* then outlines how takings law protects those rights from governmental appropriation.[105]

Colorado should follow the framework established in *Monsanto* and extend to geophysical information the trade secret protection currently provided to tangible and intangible property. Once established as a property right deserving of trade secret protection, geophysical data would

98. COLO. REV. STAT. § 7-74-101 (1986).

99. "A trade secret may consist of any formula, pattern, device, or compilation of information which is used in one's business and which gives the owner of the trade secret an opportunity to obtain an advantage over competitors who do not know of, or use the trade secret." Mineral Deposits Ltd. v. Zigan, 773 P.2d 606, 608 (Colo. Ct. App. 1989) (citing the Restatement of Torts § 757, cmt. b, p. 5 (1939)). *See also*, Martha E. Ely & J. Stephen McGuire, *Help for Colorado Trade Secret Owners*, 15 COLO. LAW. 1993 (1986) (discussing Colorado's adoption of the Uniform Trade Secrets Act).

100. "The most commonly accepted definition of trade secrets is restricted to confidential information which is not disclosed in the normal process of exploitation." Porter Indus. Inc. v. Higgins, 680 P.2d 1339, 1341 (Colo. Ct. App. 1984) (quoting Aronson v. Quick Point Pencil Co., 440 U.S. 257, 261 (1979).

101. For a description of the public policy basis for protecting trade secrets, see JAGER, *supra* note 41, § 1.01.

102. *See* Grynberg v. City of Northglenn, 739 P.2d 230 (Colo. 1987).

103. Christiansen, *supra* note 18, at 914 (suggesting that courts should employ the general trade secrets analysis to geophysical information). *See also* Superior Oil Co. v. Renfroe, 67 F. Supp. 277 (W.D. Okla. 1946) (recognizing geological information as protected under Oklahoma's trade secret laws). In a slightly different context, it has been suggested that post-*Monsanto*, the analysis for the taking of trade secrets should be extended to copyrighted information. Roberta Rosenthal Kwall, *Governmental Use of Copyrighted Property: The Sovereign's Prerogative*, 67 TEX. L. REV. 685, 690-91 (1986).

Recognition of mineral information in a trade secret context would improve the mineral owner's chances of recovery from a wrongful appropriator. As modern technology increases a wrongful appropriator's ability to impinge upon another's mineral estate from afar, trade secret protection, as premised on the wrongful appropriation of another's competitive edge, would provide a more feasible cause of action. *See generally*, Christiansen, *supra* note 18, at 914.

104. *See* Carpenter v. United States, 484 U.S. 19 (1987) (citing *Monsanto* in upholding sanctions against private appropriators of trade secrets); JAGER, *supra* note 41, § 3.03.

105. Ruckleshaus v. Monsanto, 467 U.S. 986 (1984).

then fit within *Monsanto*'s takings framework for the protection of intangible property rights.[106] Though still subject to the eminent domain and regulatory takings power, a deprivation of geophysical information would be proscribed unless justified under the common takings analysis.

Grynberg II's reliance on *Monsanto* suggests that, given the appropriate factual setting, the Colorado Supreme Court would treat geophysical information as proprietary information and proceed with the second part of the *Monsanto* analysis. Upon recognizing that mineral information qualifies as a protectable trade secret, the court could then weigh the reasonableness of investment-backed expectations or the government's interest in the "taken" property. Such an analysis would comport with modern thinking as to the appropriate takings protection for intangible property rights.[107]

CONCLUSION

The decision in *Grynberg II* puts governmental entities on notice that their intrusions into private mineral estates may require compensation under Colorado's Takings Clause. The Colorado Supreme Court recognized that the exercise of dominion over a mineral estate is a taking. However, the court's analysis did not determine the level of takings protection that geophysical data deserves as proprietary information.

Mineral owners faced with forced divulsion of confidential geophysical information could assert *Grynberg II*'s reliance on *Monsanto* as a foundation for protection. *Monsanto* validated the use of the takings analysis for proprietary confidential information. In so doing, the Colorado Supreme Court signalled a direction for the future of takings protection for intangible property rights. Using the *Monsanto* trade secret and confidential information approach, however, the *Grynberg II* court did not define the status of geophysical information under Colorado's trade secret analysis. This left the status of geophysical information under Colorado's Takings Clause undecided.

A number of factors suggest that Colorado courts would recognize confidential geophysical information as proprietary information protected by the Takings Clause: a broad definition of protectable trade secrets,[108] recognition of geophysical trespass as a valid cause of action against private parties,[109] and the reference in *Grynberg II* to *Monsanto*'s intangible

106. The *Monsanto* court referred to a number of intangible property rights protected under the federal takings analysis. *Monsanto*, 467 U.S at 1003. *See, e.g.*, Armstrong v. United States, 364 U.S. 40 (1960) (materialman's lien); Louisville Joint Stock Land Bank v. Radford, 295 U.S. 555 (1935) (real estate lien); Lynch v. United States, 292 U.S. 571 (1934) (valid contracts protected).

107. "Because of the unique nature of the property, governmental action which force[s] or sanction[s] an unauthorized, destructive disclosure of a trade secret should constitute such a deprivation and 'taking.'" JAGER, *supra* note 41, § 3.03; Ruckleshaus v. Monsanto, 467 U.S. 986, 1004-05 (1984). *See also* Kwall, *supra* note 104, at 690-91 (suggesting trade secret protection for copyrighted materials used in public schools).

108. Mineral Deposits Ltd. v. Zigan, 773 P.2d 606, 608 (Colo. Ct. App. 1989) (citing the Restatement of Torts § 757, cmt. b (1939)).

109. Grynberg v. City of Northglenn, 739 P.2d 230, 231 (Colo. 1987).

property rights protection.[110] Constitutional protection for confidential geophysical information would validate the importance of mining law's exploration right and protect the investment-backed expectations of thousands of Colorado mineral owners. Failure to protect geophysical information from improper governmental intrusion undermines the spirit of *Monsanto* and disrupts property rights within Colorado's important mining industry.

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110. City of Northglenn v. Grynberg, 846 P.2d 175, 183 (Colo. 1993).